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Critical Micelle Concentrations of Aqueous Surfactant Systems

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Critical Micelle Concentrations of Aqueous Surfactant Systems

Pasupati Mukerjee* and Karol J. Mysels**

Critical micelle concentrations (CMC's), have been collected, organized and evaluated. The literature has been scanned for numerical values from 1926 up to and including 1966. In addition, over 800 values, hitherto available only in graphical form or implied in experimental data, have been extracted from the publications and are included. Close to 5,000 entries, based on 333 references, dealing with 720 compounds are tabulated in the main tables. Whenever available, the temperature, any additives present, the method of determination and the literature source are given for each CMC value and an indication of the apparent quality of the preparation and method used are included. A shorter table gives selected values which are believed to be particularly reliable, including highly accurate ones. Among these, concordant values from at least two independent laboratories are emphasized.

Included in the Introduction is a general discussion of the importance and significance of CMC values and of methods for their determination, as well as a summary of the procedures used in the collection, evaluation and presentation of these values in the present work. Extensive indexes are provided.

Key words: Association colloid; bibliography; CMC; colloid; colloidal electrolyte; critical concentration; critical micelle concentration; detergent; hydrophobic bonding; Krafft point; long chain compounds; micelle; paraffin chain salts; selected values; soap; solubilization; standard values; surface active agents; surface chemistry; surface tension; surfactant.

1. Introduction

Critical micelle concentrations are here to stay! This conclusion is evident from figures 1 to 3 which are based on the literature used in this work. They show a continuing growth since the middle thirties in the number of articles appearing each year which contribute new values and in the number of new values reported. The number of new values per article seems to have passed its peak, which suggests more careful and critical work in recent years.

The reason for this growth is that a critical micelle concentration (CMC) is probably the simplest means of characterizing the colloid and surface behavior of a surfactant solute, which in turn determines its industrial usefulness and biological activity, and gives a measure of the structurally interesting solute-solvent and solute-solute interactions. However, these published CMC values are widely scattered through the literature—we have consulted 87 different publications—and vary greatly in quality from clearly erroneous data to highly accurate values.

Furthermore, some of the existing values are clearly tabulated, but others—often the best ones—are hidden in graphs, or even in tabulations of some measured property such as conductivity. These require considerable effort and judgment to retrieve. Frequently, the quality of the work cannot be judged without consultation of several references and intercomparison with other pertinent publications. Hence, much of the literature is not now readily accessible or useful to those interested in learning what has been established thus far.

The primary purpose of this publication is to provide a list of values in which the user can place high confidence. In the process of obtaining these, we had to make a survey, as complete as possible, of all available values. To present the results of this survey so as to make both the literature and the results contained therein readily available became, therefore, a secondary objective. Perhaps the best evidence for the usefulness of this effort is that nearly two-thirds of the best data reported herein were not previously directly available in the literature but required at least some, and often quite extensive, interpretation of a publication or individual correspondence.

The book itself is divided into four parts:

(1) The Table of Recommended and Selected Values lists the values we believe to be most reliable. They contain further guides to the quality of the data.

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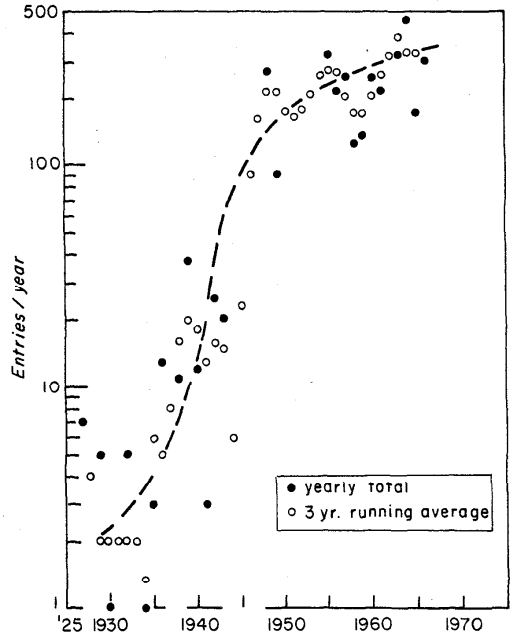


FIGURE 1. *Number of entries for the complete tables originating within each year from 1927 to 1966.*
There are no entries in 1928, 1931, 1933, 1934, 1937 and 1945.

(2) The Complete Table contains all values found which were published through 1966.

(3) Several indexes and lists, particularly the compound indexes, should permit the reader to find any desired compound or its closest analogs, give him the meaning of any abbreviation or symbol, and also guide him to the pertinent literature.

(4) The Introduction discusses the thoughts that went into the collection, evaluation, and presentation of the data. A glance at "How to Use These Tables" may be helpful before consulting them.

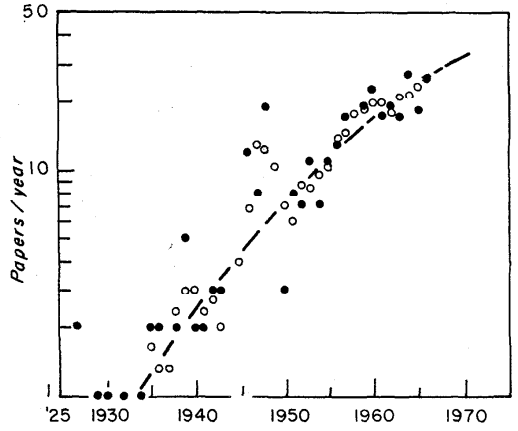


FIGURE 2. *Number of papers containing at least one entry for the complete tables originating within a given year.*

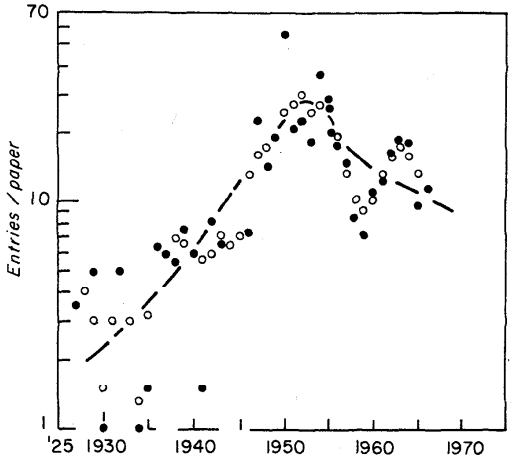


FIGURE 3. *Average number of entries per paper containing at least one entry within a given year and within a three year period.*
The largest number of entries from a single paper was 167, from reference 55004.

We hope that this work will make us more friends than enemies. We tried to be objective in the evaluation of the data, but some errors and personal prejudices are unavoidable. Our evaluation procedure of the individual data is described in the introduction, which contains also general considerations about the validity and significance of the various methods of determination.

We are grateful to many who have helped us in this work. Close to a hundred authors have responded to our request for reprints and many have provided additional comments, data, and interpretations. Dr. Edward L. Brady was most helpful in getting us started properly in the task of handling this multitude of data. Dr. H. J. White's patience and cooperation are greatly appreciated. The extensive computer handling of the data was made possible by the free availability of the data processing facilities of the R. J. Reynolds Tobacco Co., and the programming skill and understanding of Mr. Bill Donovan. Several secretaries have been involved in the careful verification of the hundreds of thousands of bits of information recorded. Mrs. Jerry Wilson and Miss Judy Tate were particularly involved in the final stages. The work leading to this publication was begun in 1964 at the University of Southern California under contract with the National Bureau of Standards and continued there until September 1966 when the authors transferred to their present connections with the University of Wisconsin, where the support of the National Bureau of Standards continued, and the R. J.

Reynolds Tobacco Co. Clearly, the resources of these three institutions made the completion of our work possible.

2. How to Use the Tables

This section presents a brief guide to the admittedly complicated arrangement of the tables. Space and computer requirements dictated much of this complexity; some is inherent in the dissimilarity of the compounds and the variety of conditions used for CMC determinations. The guide is arranged to answer a series of questions which may be raised by readers.

How do I find the compound I am interested in? In the tables the compounds are arranged in numerical order by arbitrary "Compound Numbers." To find this number you must go through the "Compound Index" in which the listed compounds are arranged by structure. There are five parts to this index (plus an alphabetical one for commercial names) and in each the compounds are listed according to different structural properties. These arrangements are described on the first page of the compound index (p. 23).

What can I do if my compound is not listed? The indexes will lead you to the most closely related compounds that are listed. These should permit you to make a good guess by interpolation and extrapolation.

How do I learn about the effect of an additive? The names of additives are abbreviated (if the abbreviation is not clear, its meaning can be found in the list on p. 222). Surfactant additives are indicated by their "Compound Number." For each compound, CMC values in the presence of additives are listed after the simple (surfactant-water) system in alphabetical order of the abbreviations. This is followed by systems with two additives and then by those with three additives.

What if the additive is not listed with my compound? The additive index shows all the compounds reported for any additive. You may find some useful analogies in this way.

What is the effect of temperature? Within each system (compound-additive(s)) the values are arranged by increasing temperature. By checking the author, or better the reference column, you can locate groups of values that were obtained specifically to show the effect of temperature (which is often small).

Which are the "good" CMC values? The shorter tables beginning on page 51 contain the "Selected" and "Recommended" values (15% of all reported values). Those that carry a "1" in the last column have been independently confirmed and should be highly reliable (to 1.5%, keeping in mind that different methods can give significantly different values—cf. p. 11). Those marked "2" are of the same apparent quality but lack confirmation. Among those marked "D" for each system, there is probably one that is as good as those of the preceding categories, but we do not know which. The many marked "3" do not seem to be in the same class but should be good to 10 percent.

What do I find in the long tables? These tables beginning on page 66 contain all the "Recommended and Selected" values plus all the others that we have located. In a number of cases, indicated by "R" in the last column, we make references to the literature where additional data or calculated values may be found or to warn the reader that the values are duplicates of those already listed or are in error. The bulk of the values carry an "L" in the last column. These may be useful and some may be excellent but we could not "recommend" or "select" them for a variety of reasons. Some clue to these reasons may be found in the "quality" column.

What is the "quality" column? In this column the first letter refers to the material and the second to the measurement. The meaning of the letters may be found on page 6. In general the quality decreases in alphabetical order. It represents our opinion after a careful study of the reference.

Are there more data in the literature? Our search does not cover anything published in 1967 or later (including the 1964 Congress of Surface Activity which did not appear in print until 1968). There are also older references that we may have overlooked. All the references within this field that we have scanned are listed in the literature index starting on page 213 whether they have yielded any entries or not. We would like to be informed of overlooked articles. Some of the literature scanned does contain data which, if properly interpreted, could lead to a CMC value which is not included. We have made such interpretations in many hundreds of cases, but not always. However, if a CMC value was mentioned as such in the article, we have tried to include it in all cases.

What are those various "methods"? The "method" column contains generally an abbreviation of the

method by which the CMC value was obtained. These methods are discussed briefly (and their abbreviations given) on pages 8 to 11. The "methods index" lists the references which have used each. These references should be consulted for details.

Occasionally the methods column contains information about the literature or a cross-reference. This is only the case when the entry does not give a CMC value.

In what units are the CMC's? We have followed the references except for order of magnitude conversions (e.g., from millimoles to moles) and as a result have a large number of units. The meaning of the abbreviations is given on page 222 and in the footnote to the table. For noncommercial compounds, for which a molecular weight is likely to have meaning, we have added a value in moles (per liter or kg of solution or kg of solvent) when the corresponding weight concentration of the compound was given. This was done by the computer on the basis of the molecular weight listed for the compound which in turn was also obtained by the computer from a structural or empirical formula of the compound. The value is printed by itself on a separate line below the value given by the author and is characterized by "M" in the "source" column.

What units are used for additives? The same units and symbols as for CMC's plus a number of others, including such peculiar ones as pH, again following the authors. In addition, we have used the additive columns to record certain special conditions such as pressure. The meaning of the abbreviations is listed on page 222. For additives we have not made any conversions to mole units.

What compound nomenclature is used? We have generally followed the first author whom we encountered dealing with the particular compound in the hope that this will also be the most common and understandable name. In case of ambiguity or some exotic names, we have added an alternative name or a formula in parentheses.

Are there any values for solvents other than water? If the solvent is a mixed one including water, the other components have been considered as additives. Nonaqueous systems have not been included for reasons discussed on page 18 with the exception of D_2O which is treated as an additive at 100 mole percent concentration!

What is the meaning of "source"? This column serves to indicate in what way the pertinent CMC value was obtained by us. The meaning of the abbreviations is listed on page 222. In some cases the reader can check our listing directly or after carefully reading a graph or replotting some numerical data. In a few cases, however, our listing is based not only on what appears in the article but on correspondence or conversation with the authors. In this case an L in the source column is given. We have not included, however, values made available to us privately which did not have a basis in the published literature.

Where do these CMC's come from? The exact reference may be found in the Reference index starting on page 213 through the number in the "reference" column of each entry. However, much information can be obtained from this number itself since the first two digits give the year of publication and from the "authors" column which carries the first four letters of the name of the author or two of the authors of that publication. Particularly for those familiar with the field, this should often permit identification of the reference.

Are the numbers of digits really significant? Not in the great majority of entries. We have again followed the authors for the sake of the record and it is clear that most authors paid no attention whatsoever to the rules pertaining to significant figures. A better idea of the precision of the values is given by our "quality" rating of the method (second letter). See page 6 for the approximate meaning of these letters. When the value quoted is obtained by ourselves from published graphs, etc., the significant figures refer to how well these graphs could be read or interpreted without digging further into the uncertainties of the experiment.

3. Usefulness of CMC Value

The expression critical micelle concentration (CMC), as will be discussed later, is slightly misleading because of the use of the singular form of the noun "concentration." The formation of micelles from the constituent monomers involves a rapid, dynamic, association-dissociation equilibrium. Experimentally, it is found, in accord with the expectations from such equilibria, that micelles are undetectable in dilute solutions of the monomers, and become detectable over a narrow range of concentrations as the total concentration of solute is increased, above which nearly all additional solute material forms micelles. The concentration at which the micelles become first detectable depends on the sensitivity of the experimental probe used. The concentration range over which

the fraction of additional solute which forms micelles changes from nearly zero to nearly unity depends on such factors as the number of monomers in the micelle, the chain length of the monomer, the properties of counterions and other details affecting the monomer-micelle equilibrium. An approximate rule is that the higher the CMC value, the broader is the concentration range over which this transition takes place, in absolute value as well as in relative value in comparison to the CMC. Since different experimental methods may reflect this transition to different extents, some systematic variations in operationally defined CMC's are expected, as discussed in more detail later (p. 11).

Nevertheless, in spite of these various sources of uncertainty in defining and pinpointing the CMC exactly, the range of uncertainty is often no more than ± 1 to 2 percent of the CMC value. Thus, the CMC is a quantity which can be, and often is, determined experimentally to a much higher precision and accuracy than nearly any other property which is characteristic of solutions of surface-active agents, a point we would like to emphasize strongly. For comparative purposes, in careful work, the precision is often within ± 1 percent.

The usefulness of CMC values in various qualitative and quantitative investigations involving surfactant solutions arises basically from the fact that the surface and interfacial activity of the amphipathic (polar-nonpolar) monomers is closely reflected in the value of the CMC. The tendency to form micelles arises mainly from the presence of a hydrophobic part in the amphipathic monomers. The role of the hydrophilic part, nonionic, zwitter-ionic, or ionic (with associated counterions), which is essential for conferring enough of a solubility to the hydrocarbon chain so that CMC values can be reached or exceeded, is essentially a negative one as far as the stability of micelles is concerned. The same factors are involved qualitatively in the surface activity of the monomers, irrespective of whether the surface is an air-water interface, oil-water interface, or a nonpolar solid-water interface. There is thus an excellent correspondence between the adsorbability of the monomers, their ability to reduce surface and interfacial tensions, and the value of the CMC [*1*, *2*].[1] The more surface active the monomer is, the higher is the tendency to form micelles and the lower the CMC value. Since above the CMC the monomer activity rises only very slowly, the CMC is also a measure of the concentration at which the thermodynamic activity of the monomer and, therefore, its net surface activity and adsorbability to various substrates, level off to nearly constant values [*1–3*]. In closely comparable systems, particularly if the hydrophilic moiety of the monomer is kept the same and the hydrophobic part is varied, there is a considerable similarity in the amount of adsorption to air-water and oil-water interfaces at concentrations close to the CMC. It is thus often possible to obtain rough estimates of equilibrium monolayer concentrations from the CMC values in homologous systems [*1–3*].

Since adsorption from surfactant solutions is involved in widely ranging systems of technical importance such as foams, froths, emulsions, suspensions, and surface coatings, CMC values are important in a wide variety of industrial operations [*4*, *5*].

In striking contrast to monomers, the micelles, which have a hydrophilic exterior, are not surface-active. As a result, above the CMC, excepting in some cases where small micelles form and the monomer activity increases appreciably, the surface and interfacial tensions decrease very little [*1*, *2*, *6*]. The CMC, therefore, indicates the concentration at which surface and interfacial tensions reach, approximately, their lowest values. Characteristic values at room temperature are often about 35 dyn/cm for surface tensions and 5 dyn/cm for interfacial tensions.

The CMC, of course, is the concentration at which the micelles make their first appearance. Micelles provide in many ways one of the most convenient systems available to study in depth the properties of colloids. As the properties of micelles depend on micelle-medium interactions and also micelle-micelle interactions, to understand the former without the latter complication, it is necessary to extrapolate properties of micelles to a point where micelle-micelle interactions become negligible. The corresponding extrapolation of preformed colloidal systems, such as polymers or proteins, which do not dissociate on extensive dilution, is made to "infinite dilution." For micellar properties, the CMC serves as a convenient point for extrapolation, i.e., "infinite dilution" for micelles. Just as binary protein-protein interactions (i.e., those involved in second virial coefficients) are experimentally determined from the slopes of curves as they approach infinite dilution, so in micellar

[1] Italicized figures in brackets indicate the literature references on page 20.

systems, the corresponding concentration range is the one just above the CMC [7–10].

In systems involving solubilization of an additional component or its distribution between the bulk solution and the micelle, the CMC again is a measure of the concentration at which such phenomena become first apparent. It will be discussed later that the addition of the third component may modify the CMC itself to some extent and, therefore, the CMC of the system in presence of the third component is the value to be used. The change in the CMC, however, is often small.

In situations where a quantitative estimate of the amount or concentration of micelles is desired, for example, in estimating solubilizing powers, or the effect of micelle concentrations on the chemical reactivities of constituent monomers or solubilized species, an area of research which is of considerable current interest [11–15], the CMC again serves the purpose of giving a rough estimate of the monomer concentration in the solution. The micelle concentration in equivalents, therefore, can be closely approximated as the total concentration minus the CMC.

For the quantitative study of the thermodynamics of the interactions involved in the monomer-micelle equilibrium, the CMC is of paramount importance [16–21]. Although considerable uncertainties still exist with regard to the proper means of estimating the charge effects in ionic micelles, for uncharged systems the CMC itself gives an approximate quantitative measure of the standard free energy of formation of micelles. These free energies and other derived thermodynamic quantities are of great potential and actual use in understanding hydrophobic interactions in general [22–24]. Such interactions are involved in a wide variety of biochemical phenomena, e.g., the stability, structure, conformation, and activity of proteins, enzymes, and membranes. With ionic micelles, as mentioned before, the calculation of thermodynamic quantities characterizing the various interactions is not on sure ground as yet. For comparison of related systems, however, e.g., in noting the effect of varying the chainlength, salt concentrations, or counterions, the CMC provides quite a good quantitative measure of the changes as they affect the monomer-micelle equilibrium [8, 18, 25].

4. Evaluation

An important part of this work is the evaluation of the data presented. We hope to guide the reader to those data that are most useful and reliable in our considered judgment and also to show him other values that exist in the literature so that he may make more easily his own evaluation. We also tried to indicate the relevant literature and data that we have considered but not used in final listings.

We divided our evaluation into two steps: one, which we may call the individual or preliminary evaluation; the other, the comparative evaluation. The former represents our opinion on the basis of the individual paper (and its references or related papers of the same author); the latter is based on intercomparison of all the available data for a given compound under the same, or closely related, conditions. The former was done as the work progressed over a period of three years, 1965–68, and, therefore, is subject to the drift and development of our ideas and skills during that time. The latter was done in a short period of time after all the data had been collected and sorted by the computer.

Individual evaluation. A preliminary separation involved the question whether a given CMC value should be reported in detail or not. Values which are indicated in the article as being duplicates of other published values are omitted completely. Others, however, which are clearly duplicates but not explicitly indicated as such by the authors, are mentioned as "VALUES FROM REF IN CMC," with the article from which they are taken listed in the column in which the CMC is normally found.

Values which could not be retrieved profitably, e.g., those in the form of small-scale graphs or summarizing equations, are indicated as "GRAPH DATA NOT RETRIEVED" and "SUMMARIZING EQN ONLY" for the reader who wishes to examine them himself. There are 41 entries in the former category and 22 in the latter.

Once a value was included explicitly, we attempted to evaluate the purity of the materials and the accuracy and precision of the method used. These were noted separately as reported in the "Quality" Rating columns. The meaning of the symbols is as follows:

	MATERIAL	METHOD
A	Highest purity—not likely to be significantly improved in the future	precise to about 1% accurate to 1.5%

B	Very pure but may still contain significant traces of impurities	precise to about 2% accurate to 3%
C	Purified but likely to contain significant impurities	precise to about 3% accurate to 5%
D	Compounds purified without special precautions against surfactant impurities	precise to about 10% accurate to 10%
E	Good quality mixture of head groups	order of magnitude
F	Good quality mixture of homologues	wrong
G	Not purified	likely presence of systematic errors of uncertain absolute and relative magnitude
H	Commercial surfactant material	
P	High purity claimed without supporting data	
Q		theoretically calculated
X	No information given	

These ratings should be taken with certain reservations, both because of the possibility of personal bias and of the frequent lack of all the information required to form a definite opinion, and the unavoidable lack of consistency over the four-year span during which they were being assigned. All that can be said is that they represent our best opinion at the time of a detailed reading of the article cited. Because the evaluation was individual, it is not surprising that upon later comparative evaluation, some values which were initially ranked high appeared more questionable or vice versa. Hence, the ratings are at best meaningful to plus or minus one category. We may mention, however, that during the final evaluation we frequently referred to the original papers, and only in two cases did we feel the need to change the preliminary ratings.

Comparative Evaluation. This evaluation was performed after all the data were collected and classified by the computer into the form of the "Complete CMC Listing" of this report. This permitted easy intercomparison of values reported for the same or similar systems. Each value was then assigned to one of a set of categories. This assignment also formed the basis for obtaining the "confirmed," "recommended," "disputed," and "selected" values for a separate listing.

The following categories were used:

1-Confirmed.—Values from at least two independent laboratories which are of good quality both with respect to materials and methods and which agree within the expected limit for a given method or between methods. These may be used with high confidence.

2-Recommended.—Values of the same quality as above but lacking independent confirmation.

D-Disputed.—These are values which seem as accurate as the preceding ones, but disagree by more than would permit them to be classified as "confirmed." It is likely that one of the values is correct but we did not have a firm basis for deciding which. In some cases correlation with values for other systems indicated a definite choice and the preferred value was assigned a "2," i.e., "recommended" rating, and remaining values were assigned the "L" or "literature" rating.

3-Selected.—These are values which do not appear to have the accuracy of the above categories but should still be of considerable utility. We feel that they are probably within 10 percent of the "true" value, as measured by the same approach. Their total number is less than 10 percent of all the entries, and they represent the next most reliable group after (1) and (2).

L—Literature.—This category includes the great majority of the values. They are provided for bibliographical completeness and because some readers may prefer any value—no matter how unreliable—to no value at all. Some of these values may be accurate, but there is insufficient information to certify that this is the case. Some will turn out to be off by orders of magnitude. In some cases where the literature provided *prima facie* evidence that the CMC value was erroneously assigned, we have indicated this by the statement "QUESTIONABLE CRITERION" in the "method" column.

P—Preferred.—Occasionally, widely differing values have been reported for what should be a single CMC. The reader's choice can generally be guided by the quality rank assignment to the compound and method. In a few cases we thought it advisable to indicate the preferred value by a P. These data did not qualify for one of the "selected" or "recommended" categories, but seem to be clearly preferable to the others.

R—Indicates a literature reference in which the reader may find a value not tabulated by us. A

statement in the "methods" column indicates whether the reason for omission is that we considered it a duplication (without explicit reference) of a value from another publication, or a value which could not or should not be listed.

X—Indicates a cross-reference within our tabulation and is used for mixed systems of surfactants which are reported only once under one compound but cross-referenced under the others.

In deciding about the probable accuracy of a CMC value we considered not only the details of the particular measurement but also the general validity and limitation of the method used. It may, therefore, be appropriate now to review briefly the multitude of these methods and then to consider some factors which guided us in judging their intrinsic accuracies.

5. Methods of Determining CMC's

Although abrupt changes in the concentration dependence of several properties of several surfactant solutions had been observed before the 1930's [*26–28*] and the concept of micelles in such solutions had been developed by McBain and coworkers [*29, 30*], the existence of a narrow concentration range, called "the critical concentration for micelles" [*31*], below which the solution contains negligible amounts of micelles and above which practically all additional surfactant is found in the form of additional micelles, was established by Bury and his coworkers [*31, 32*] and Hartley and his coworkers [*33*] in the early 1930's. Since that time, CMC determinations have multiplied and the results have been used in a variety of ways. The importance of a definite CMC value to which micellar properties could be extrapolated so as to give the infinite dilution behavior of micelles was emphasized by Debye soon after World War II [*34*].

In the process of collecting the present data we have distinguished 71 methods of determining the CMC, ranging from a few widely used ones to a few reported only once. These may be grouped as follows, with the numbers in parentheses giving the number of CMC's in this report for each method or group of methods. Experimental details of these methods may be found by following the references given for each in the index to methods.

The entry "METHOD NOT CITED" (128) in most cases refers to just that, when a CMC value appears with no further indication. In a few cases, however, it results from the fact that the article is not clear as to which of two or three well-defined methods was used in determining each individual value. One or two of such cases deserved, in our opinion, enough confidence to be included among "selected" values.

Also in a special category is the THEORETICALLY ESTIMATED (5) entry which we included for completeness.

The other methods can be divided into two broad classes depending on whether another material is added to the system specifically for the purpose of the measurement (as opposed to an additive whose effect is being studied). They are at present all based on the study of a property of the system as some function of concentration and detection of a particularity, such as a change of slope or a discontinuity, at the CMC.

Methods Requiring No Additive

1. SURFACE TENSION (940). This method of increasing popularity involves the measurement of surface tensions of solutions by a variety of methods which we did not attempt to classify (such as the du Nouy ring detachment method, the Wilhelmy plate equilibrium or detachment, drop weight or volume or shape). The data are generally plotted against the logarithm of concentration—LOG PLOT (843)—as the abscissa and the transition between a descending line (often assumed to be straight) and another one close to the horizontal is taken as the CMC. The data can also be plotted directly against the concentration—LINEAR PLOT (18)—in which case the curvature of the descending portion is much more marked and the transition less sharp. A MINIMUM (15) in the curve is now known to be due to the presence of a third component (contamination or products of hydrolysis) which is more surface active but removed from the surface by solubilization in the micelles above the CMC. It is sometimes reported as the CMC of the system. We have also encountered the UNSPEC (64) where no details are given. Interfacial tension methods are considered later among methods involving an additive.

A related method is based on the FOAMING POWER (2) of the solution. It is not clear at present how the changes in this property are related to the association of monomers into micelles.

2. Electric conductivity—COND or CONDCTNCE (953)—is based on the measurement of the A-C electric resistances of the solutions. These can then be interpreted in terms of the specific

conductivity—SPECFC (386)—and plotted—GRAPH (343)—against concentration to give two almost straight lines whose intersection is the CMC or the data corresponding to each straight line can be summarized by equations—EQUATNS (43)—and the CMC obtained analytically. The data can also be converted to equivalent conductivity—EQUIV (352)—and the CMC obtained graphically—GRAPH (319)—usually plotting against the square root of concentration. Occasionally linear or cube root plots have been encountered. In much early work it was the first detected deviation—1ST DEVIATION (18)—that was reported as the CMC. As the CMC thus assigned depended clearly on the sensitivity of the method, this approach seems to have been abandoned. A few surfactants having low CMC's show a maximum of equivalent conductance in the CMC region. The origin of this maximum is not yet clear [*34a*] and in some cases the beginning of the rise—MAX BEGINING (10)—in others the MAXIMUM (5)—itself is reported as the CMC.

Some authors report averages—AVER (110)—of two of the above methods, namely specific and equivalent—SP EQUIV (104)—conductivities or of the beginning of the rise to the maximum and of specific conductance—COND BEGINING MAXIM (6). Some report results based on conductance without further details—UNSPEC (105).

The variation of electric conductance with frequency at high frequencies, the so-called WIEN EFFECT (1), is different for micelles and monomers and has been used to determine the CMC.

3. There is a variety of methods to investigate optical and spectroscopic properties of a solution, and they may be classified as follows:

(a) Measurements of scattered light—LITE SCATR or LIGHT SCATTER (317) depends on the measurement of the intensity of light at an angle, generally 90°, to the incident beam.

A plot of this intensity or of the turbidity of the solution (which is proportional to it) shows a low slope for dilute solutions and a steeper one above the CMC. The intersection of the two parts on a TURBIDITY PLT (291) gives the CMC. Debye has pointed out that the concentration above the CMC divided by the turbidity (or excess turbidity above that at the CMC) is close to a straight line. Conversely the CMC may be obtained by selecting the value which gives the best straight line on such a DEBYE PLT (25). In light scattering the exact procedure was not indicated only once—UNSPEC (1).

(b) The CMC can be obtained from the change of slope of the REFRACTIVE INDEX (134) when plotted against concentration.

(c) The absorption spectrum of some surfactants is different when they are in micellar and in free form. Hence, plotting the absorbancy at a suitable wavelength can give a change of slope corresponding to the CMC. This MICELLAR SPECTRAL CHANGE (30) method should be distinguished sharply from the multitude of other spectral change methods in that it does not require any additive.

(d) Others. A CMC has been obtained by the change in the X-RAY DIFFRACTION (1) pattern but this method has a very low sensitivity and, therefore, precision. Another method using a spectroscopic technique which has been introduced after the closing of this survey involves shifts of nmr peaks.

4. Calorimetric methods used to obtain CMC's are those of SPECIFIC HEAT (4) and HEAT OF DILUTION (24).

5. Two colligative properties have been used. FREEZING POINT (14) lowering which gives the CMC at a single temperature, generally close to zero, determined by the nature of the solute and VAPOR PRESSURE LOWERING (38) generally measured with a so-called vapor pressure osmometer based on the temperature comparison of two droplets, one of solution, the other of solvent.

6. The abrupt increase of solubility with increasing temperature which occurs once the solubility reaches the CMC region is the basis of the KRAFT POINT SOLUBILITY (21) method. This change is sharpest when the logarithm of the solubility is plotted against the inverse absolute temperature. Often other plots or even single point experiments are used which have little or no value.

7. Several of what may be called transport properties have been used. They include:

(a) Measurements of the DIFFUSION COEFFICIENT (2) of the surfactant which gives, of course, an average of the very different mobilities of micelles and monomers and leads to a change of slope in a D versus C plot to give the CMC.

(b) The VISCOSITY (9) of the solution plotted as the specific viscosity $[(\eta-\eta_0)/\eta_0]$ or as the reduced viscosity (η_{sp}/c) shows a change of slope at the CMC. A related method depends on an observed VISCOSITY MINIMUM (14) in the CMC region. This minimum probably results from a combination

of surface tension, contact angle, and viscosity effects in the capillary instrument used, so that its relation to the micelle formation is not clear.

(c) Measurements of STREAMING CURRENT (6) have been also used for determining the CMC and should perhaps be classified among methods requiring an additive since these electrokinetic phenomena depend on the adsorption on the solid involved which is specific to the surface. They also depend, though only in a secondary way, on changes occurring in the bulk of the solution which involves the CMC.

(d) Changes in the concentration of the filtrate in ULTRAFILTRATION (9) and in the sedimentation coefficient in ULTRACENTRIFUGATION (1) also lead to CMC values.

8. Potentiometric measurements use several approaches:

(a) ELECTROMOTIVE FORCE (32) methods involve measurements of potential of either specific ion electrodes other than pH ones or of an insoluble mercury-surfactant salt electrode against a salt bridge-reference electrode. It may be noted that the presence of the salt bridge often causes local precipitation of the surfactant and that insoluble salts can be solubilized by micelles. These complications are often overlooked but should, perhaps, cause these methods to be considered with those involving additives.

(b) EMF ALONG CONC GRADIENT (1) uses two closely spaced identical electrodes moved through a solution having a known concentration gradient. Hence, it depends on a change of the slope of the emf—versus—concentration curve.

(c) PH AND HYDROLYSIS (9) method involve pH measurements interpreted either directly or after conversion to a degree of hydrolysis. They are grouped together since they often involve problems of carbon dioxide contamination as well as salt bridges.

9. Other bulk properties that have been used to determine CMC's are density (23) based generally on magnetic float methods plotted directly as DENSITY (17) or after conversion to PARTIAL VOLUME (6) and ultrasonic VELOCITY OF SOUND (10).

Methods Involving the Use of an Additive in the Bulk of the Solution

1. Spectral change—SPCTR CHNGE (1602)—methods.

This family of methods whose limitation (which we consider quite severe) will be discussed below (p. 12) is by far the most fertile one as far as supplying CMC values. It is based on the fact that the spectra of many dyes added in very small amounts to a surfactant solution are very different in the region below and in that above the CMC. Pinacyanole—PNCN (1176)—is also by far the most popular among these dyes. The CMC may be determined, for example, by titration of a solution above the CMC by one below the CMC, both containing the same concentration of dye. Some definite shade is chosen as the end point corresponding to the CMC. Alternatively, solutions having concentrations bracketing the CMC are prepared containing the same concentration of the dye and their color examined visually, or their spectrum or their absorbancy at a specific wavelength measured. In any case, the concentration at which some sharp change occurs is taken as the CMC. In some cases the values are extrapolated to zero dye concentration. For one dye Rhodamine 6G—RHD6 (74) in addition to the spectral change, the change in fluorescence FLUOR CHNGE (19) was used and is based on the same principles.

We have noted whether the technique used was VISUAL (1277) photometric—FOTOMTR (305)—or UNSPEC (20)—as this is related to the precision expected.

Other dyes which have been used in this method are Fluorescein—FL (2), Erythrosin—ERTS (7), dichlorofluorescein—DCLF (9), Benzopurpurine 4B—BZP4 (11), Bromphenol Blue—BRPB (21), Skyblue FF—SKYB (43), Eosin—EOSN (51), Indophenol—INPX (129) and, included because it performs the same function although not a dye in the strict sense, Iodine—12 (52). There is also unspecified VISUAL SPECTR CHNGE (27).

2. The fact that many water-insoluble substances dissolve significantly in the presence of micelles, i.e., are solubilized, has been used in the determination of CMC's by solubilization—SOLUBLZTN (293)—methods. The solubility of dyes has always been determined photometrically—FOTOMTR (274)—unless it is UNSPEC (12), that of TOLUENE (4) has been determined volumetrically, and the limit of solubility of lauryl alcohol has been established turbidimetrically—TURBIDMTR LOH (3)—. The most popular dye is the so-called orange OT—OROT (158)—which is always 1-o-tolyl-azo-2-naphthol, CI Solvent Orange 2, m.p. 128–9°, and not the complicated pigment which was once available under that name which is CI Pigment Orange 13,

m.p. 332°. Other solubilizates used are paradimethylaminoazobenzene—PDMAB (59), Sudan 4—SDN4 (46), azobenzene—AZBA (11), Yellow OB—YLOB (9), 2-nitro-diphenylamine—2NPA (2) and dimethyl yellow—DMYL (1).

3. Methods based on liquid-liquid interface phenomena.

(a) Measurements of INTERFACIAL TNSN or TENSION (52) between an aqueous solution of a surfactant and an immiscible liquid have been used in the determination of the CMC. Most values were obtained from semilogarithmic plots, LOGM (46) but we also found UNSPEC (6). These methods are classified among those requiring an additive because of the always finite solubility of the other liquid in the aqueous phase especially above the CMC. A frequently present source of error in this method is the solution of some of the surfactant in the nonaqueous phase which can radically change its real concentration.

(b) We are placing in the same category methods based on the suppression of the POLAROGRAPHIC MAXIMUM (45) since this suppression is related to an increase in surface (dilational) viscosity of the mercury-solution interface which reduces the convection currents responsible for the maximum in the "diffusion" current. These surface viscosity changes are in turn related to the adsorption of the surfactant and thus depend on its activity. However, it is not clear at present how the final polarographic criterion is related to the CMC. These measurements require also the presence of a very high concentration of an inert electrolyte and that of an electrochemically active indicator ion. This makes the composition of the solutions rather unique and prevents comparison with other data. Although we are quite skeptical about the significance of data obtained by this method, we have reported them in view of lack of any definite evidence of their invalidity. A further disturbing fact is that sometimes two CMC's are reported for a given system. One of them is, therefore, certainly wrong. However, for the sake of completeness we had to record both.

4. Other methods in this class include a result obtained from changes in the FLOCCULATION RATE (1) of a suspension and those from changes in the (reaction) REACTN RATE OF A SOLUBILIZATE (2) as it becomes solubilized above the CMC.

6. Reasons for Methodical Differences Between CMC Determinations

As shown by the above review of methods used, the determination of a CMC involves a series of measurements of some property of solutions of surfactant, alone or with an indicator, as a function of concentration followed by the detection of some characteristic point which is called the CMC. Methodical differences may originate from the choice of the characteristic point, the kind of plot on which this point is chosen, the kind of data which are plotted, and the effect of the indicator, if any, upon these data. We use here the term "plot" in a general sense to include any serial representation and even titration, although in the great majority of cases it is a real graphical plot that is involved.

If the CMC were a sharply defined point, such as a melting point, above which some properties were qualitatively different from those below it, methodical differences would be nonexistent or greatly reduced. In fact, however, all properties of a solution in the CMC region vary in a continuous manner and so do all their derivatives. There is, nevertheless, a relatively narrow region of concentration in which these changes are most marked. This is illustrated by precise measurements on pure systems such as those of figure 4 (and is, of course, exaggerated on impure ones) but is perhaps best

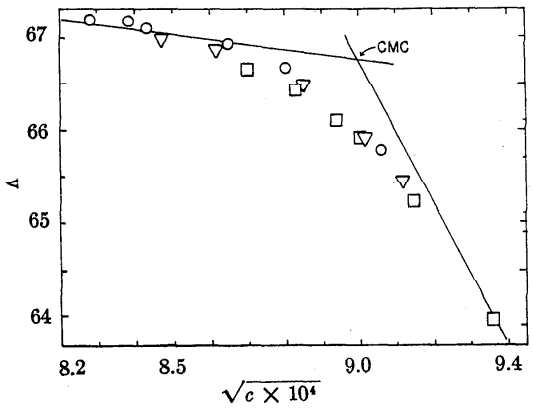


FIGURE 4. *Detail of the CMC region for sodium dodecyl sulfate.* The straight lines are based on many points beyond the limits of the figure. The points were obtained by two investigators on two different preparations of the compound. From reference 58013, reprinted by permission of the Journal of Physical Chemistry.

grounded on broad theoretical considerations. One is that a micelle is by definition a reversible aggregate of a large but not infinite number of monomers and that the micelle-forming reaction must obey the laws of chemical equilibrium. As such, the

concentration dependence of the degree of micellization has to change gradually although it may change rapidly [*32*, *33*, *35*]. A truly abrupt, discontinuous, transition is excluded. Consequently, all properties of the solution must show similarly rapid but gradual changes. Another argument which is less self-evident but seems to be well supported is that there is not a unique number of monomers which can form a micelle but a range with relatively wide limits. Hence, micelles are polydisperse. This is in agreement with the fact that (the average) micellar size varies continuously with conditions such as temperature, concentration of surfactant, concentration of counterion or other additives, nature of counterion, chain length and structure, and also that micelles are good solvents both for other materials as shown by solubilization, and for each other as shown by the frequent continuous formation of mixed micelles. Reasonable assumptions about forces determining the size of the micelle also lead to the conclusion that they must be polydisperse [*35a*]. Hence, in the CMC region not one kind of micelle, but many kinds appear, each with a slightly different concentration dependence which further spreads and complicates the changes of bulk properties occurring in this region.

In light of these considerations, we shall now review in more detail the sources of methodical discrepancies in CMC determinations and their effect upon our critical evaluation.

1. *Choice of the characteristic point.* As already mentioned, in some early work, it was the first detectable deviation from monomeric properties that was taken as the CMC. This depended greatly on the sensitivity of the method and has generally been replaced by an extrapolation from below and from above to a point of intersection. If the two lines are straight and differ markedly in slope, this is a simple procedure. Unfortunately, such is seldom the case. Some of the procedures, therefore, involve a treatment of the data to obtain a straight line. Thus, equivalent conductivity of strong electrolytes is plotted against the square root of the concentration in accordance with the Onsager limiting slope.

It also seems true that those properties which give the best straight lines, because they are rather insensitive to interparticle interactions, also give small differences of slope for the same reason. Density and refractive index or specific conductance in the presence of high salt concentrations are good examples. Hence, they require precise measurements to give useful results. This implies keeping constant all factors other than the concentration of surfactant, such as the temperature, and also the concentration of other components such as added salts. The latter often requires extreme precautions against evaporation. In the interpretation of such precise measurements, difference plots (i.e., experimental value minus a straight line value) are useful. A few methods, however, give good straight lines of very different slopes, e.g., conductance in the absence of high salt concentrations, solubilization of some dyes, or micellar spectral changes of some pyridinium compounds.

Closely related to the extrapolation method is that of the point of maximum rate of change of slope (i.e., zero value of third derivative) which is useful in theoretical calculations [*16*] but is so difficult to apply experimentally that it does not seem to have been used.

In the spectral change methods using indicator dyes there is generally a change of absorbancy at any given wavelength from one characteristic value below the CMC to another above the CMC. Some authors take the beginning, some the end, and most the midpoint of that change. The latter is by far the most objectively defined but, as we shall see later, is a function of concentration of the indicator. In visual methods there is much subjectivity and the result can depend markedly on local illumination because of the very complicated absorption spectrum of certain dyes, particularly the most frequently used one, pinacyanole.

Clearly, depending on which point is defined as the CMC, values covering a considerable range may be obtained. We have given weight only to those methods which defined a point in the middle part of the range, particularly those using an extrapolation procedure, and much of the following discussion will be restricted to those.

2. *The kind of plot chosen.* A point which is not often appreciated is that the same experimental data can give different values for the CMC by extrapolation procedures depending on how they are plotted. The best known example of this is the difference between CMC's obtained by plotting conductance versus concentration and the corresponding equivalent conductance versus the square root of concentration. Figure 5 shows an example of the same set of experimental data plotted in these two ways. Very reasonable linear extrapolations give a well-defined CMC in each case, but the two values

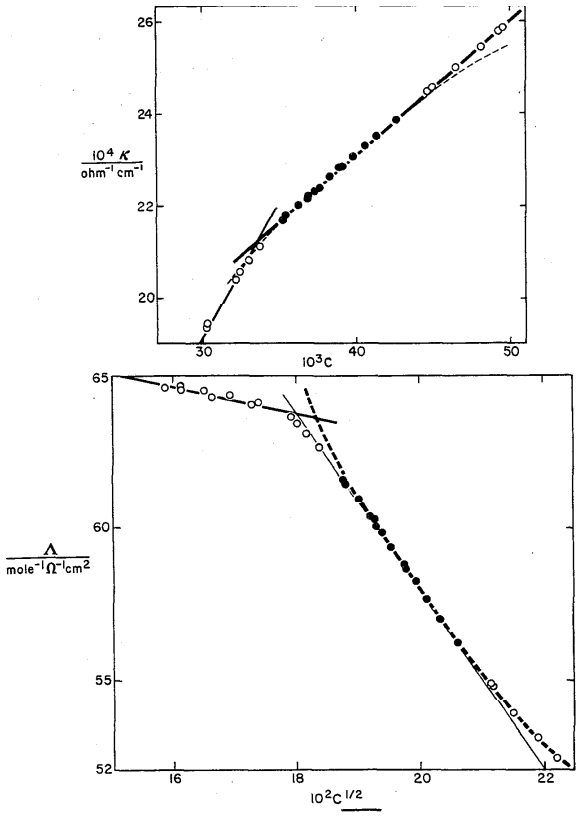


FIGURE 5. *The effect of the way of plotting upon the value of the CMC obtained from the same data.*

Above: conductivity versus concentration; below: equivalent conductivity versus square root of concentration. The dotted curves on each graph correspond to the straight line of the other graph. The filled points are common to both lines. Data for sodium decyl sulfate obtained by Dr. R. J. Otter. From the 14th Technical Report, Office of Naval Research, Contract Nonr-274(00) by K. J. Mysels, R. J. Otter and P. Kapauan, University of Southern California, October, 1960. (Cf. Ref. 61017).

differ by about 3 percent, which is much more than the uncertainty in each. The discrepancy is due in large part to the fact that, a straight line on one plot is a curve on the other so that different points are chosen as the basis for extrapolation and the intersection is shifted.

3. *The kind of data.* If micelles were monodisperse then, for CMC determinations, the molecular weight or charge dependence of a property would not matter as long as it was linear with some function of the concentration. However, if one accepts the premise that polydispersity is possible, it is clear that different physical properties will give differently weighted measures of micellar concentrations and, therefore, different extrapolated values of zero micelle concentration, i.e., different CMC's [*18*]. The most accessible experimental variable is the total concentration of surfactant conveniently expressed in equivalents. We will estimate the kind of average that is plotted against this variable in some popular methods without attempting to discuss this subject fully.

Solubilization. As a first approximation we may assume that the surfactant chains have a constant solvent power independent of their configuration, i.e., independent of the micellar size. The quantity measured—the concentration of solubilizate—is then directly proportional to the equivalent concentration of micellized surfactant and independent of polydispersity. More formally, we call n_i the number of monomers per micelle of a given size, M_i the molar concentration of these micelles, and C_i their equivalent concentration. Each group of micelles then dissolves an amount of solubilizate proportional to $M_i n_i$ and the measured total give us

$$\sum M_i n_i = \sum C_i = C_m$$

where C_m is the total equivalent concentration of micelles. Thus, the result is unweighted.

Colligative measurements. These give the sum of molar concentrations of micelles (for the simple nonionic case). Hence, we get

$$\sum M_i = \sum C_i / n_i$$

the inverse-size weighted equivalent concentration of micelles.

Turbidity. The total turbidity is the sum of the turbidities of the individual micelles and these in turn are proportional to the square of their mass (again neglecting charge effects and other interactions). Hence, we measure

$$\sum \tau_i = \sum M_i n_i^2 = \sum C_i n_i$$

or the size weighted equivalent concentration of micelles.

Thus, it is clear that these different methods must yield different results. Yet, when the polydispersity is small, the micelles large, and the transition region narrow, the differences may be small, often smaller than experimental uncertainties. Thus, depending on the precision involved and the particular system under consideration, the term CMC may have a definite meaning or may have to be tempered by a specification of the experimental method used and also of the way in which the results are interpreted. Unfortunately, there is little definitive information about the final effect that these factors have on the CMC values determined by various methods.

In the final evaluation of the CMC values, we had to face the question whether two numbers obtained under allegedly identical conditions and by apparently reliable measurements did agree sufficiently to confirm each other. In making the decision, we tried to take into account the differences expected between methods in addition to differences due to the unavoidable experimental uncertainty on which we placed an arbitrary limit of 1.5 percent. Hence, two CMC values differing by 4 percent may be taken as comfirming each other, if the methods used would be expected to differ by 3 percent (in the proper direction), as is indeed the case for conductance and equivalent conductivity measurements.

4. *The effect of the concentration range used.* Extrapolation generally uses straight lines. Few physical properties vary, however, exactly linearly. Generally, some curvature is present in reality. Hence, the line drawn tends to be a chord and its direction and position are a function of the portion of the curve that is being approximated. This remains true whether a line is drawn by inspection or after a least square calculation. In terms of CMC determinations, it means that the value obtained depends generally on the range of concentrations above and below the CMC over which the extrapolation is taken and, therefore, the number and spacing of points. There is no general agreement as to what these ranges should be and herein lies another source of discrepancies. Figure 6 shows the effect of the range of data used upon the CMC.

In dilute solutions there are some theoretical guides to the expected curvature which suggest the kind of graph which is likely to make the experimental points fall close to a straight line. The square root for conductivity, the logarithm for surface tension are good concentration scales for monomers, and micellar concentration divided by turbidity is a good one for light scattering. In more concentrated solutions the systems depart more and more from ideality and all plots become nonlinear. Extrapolation then becomes more and more a question of judgment and of the range and spacing of available data, and the CMC value becomes highly subjective. Since compounds with shorter chain lengths tend to have higher CMC's, this is an important factor in reducing the accuracy of CMC determinations as the chain length decreases below 10 carbon atoms.

The CMC region is itself a region of curvature of any measured property. This means that experimental points very close to the CMC cannot be used for its determination because they deviate from both lines used in the extrapolation. The sharper the curvature the smaller the unusable concentration span and the simpler the extrapolation. Theoretical calculations show clearly [*33*, *35*] and it is easily seen physically, that the larger the micelle the more cooperative is micelle formation and the sharper the curvature. Polydispersity of micelles can only smear out the transition region. Hence, pure systems show much better defined and more easily measured CMC's because of reduced polydispersity. For space-filling reasons, long-chain monomers can form larger spherical micelles, and do form larger micelles in general according to available experimental evidence [*8*]. Short-chain compounds, therefore, present an additional difficulty because of the spread of their CMC region not only in absolute terms but also in relative ones.

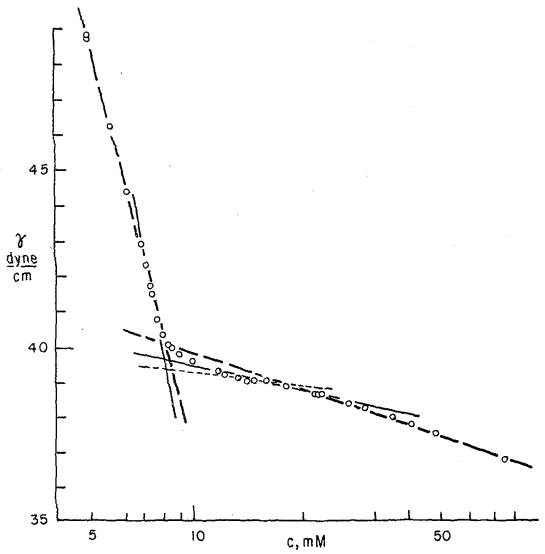


FIGURE 6. *The effect of the range of values used upon the CMC.* Surface tension data for highly purified sodium dodecyl sulfate from reference 66007. The various straight lines represent extrapolation based on points within a certain range of concentrations. If points outside this range were not available, each of these extrapolations could be considered as quite reasonable.

The combined effects of curvature at higher concentrations and of the relative width of the transition region account for the fact that we have not been able to include any C–8 compounds among those for which confirmed or recommended values are available. This is despite the fact that these compounds are intrinsically easier to prepare in a state of high purity, that the measurement of the physical properties of their solutions can be made

more precisely and that any impurities in the solvent are less disturbing just because the CMC's are higher.

Long-chain compounds present different but no less serious difficulties because their CMC's are so low. Here the actual measurement of the physical property becomes difficult because it often differs little from that of the solvent, the control of concentration may become a problem because surfactants tend to adsorb at interfaces, and trace impurities in the solvent play a larger role. Furthermore, the compounds themselves are intrinsically less easily purified because certain operations, such as distillation of intermediates, become more difficult, and also because there is an increased number of isomers and because properties of homologues and isomers become more similar. In our collection only one value for a C–16 compound became recommended and an inordinate fraction is marked "D" for disputed, reflecting the difficulties involved.

Thus, the bulk of reliable CMC data deals with compounds in the C–10 to C–14 range. It is clear that better experimental methods are needed to extend the upper limit and better interpretation to overcome the lower one.

5. *The effect of indicators.* A very large fraction of all reported CMC values was obtained by methods involving the deliberate addition of an indicator, generally a dye which is solubilized and presents an easily measurable difference in the solubilized and not-solubilized state. This requires a discussion of the role of these indicators and of the reasons which led us to accept certain of these methods as valid and to reject the great majority as likely to be biased by significant methodical errors.

Solubilization is the marked increase of solubility associated with the formation of micelles. It is of special interest for substances which are sparingly soluble in water but is not limited to these. To a first approximation the excess solubility is directly proportional to the concentration of micelles [36] showing that these act as a solvent having a limited solvent power for the solubilizate. We can consider the saturated solution as an equilibrium system in which both the true solvent (water) and the micelles are saturated with the solubilizate. In undersaturated systems there are good reasons to believe [*36*, *37*] that a distribution equilibrium between water and micelles exists.

It is a well-known rule of physical chemistry that the activity of the solvent is lower in a solution than in the pure state. Hence, in the macroscopic world, the liquid phase forms at a lower vapor pressure in the presence of a solute than in its absence. In fact, at equilibrium the first drop always forms at the vapor pressure of the saturated solution. In the microscopic world of the micelle considered as a solvent, the analogy is clear: the activity of the surfactant in the micelle is lower in the presence of a solubilizate. Hence, micelles form at a lower concentration of monomers in the presence of the solubilizate. In fact, the first micelles exist at the equilibrium monomer concentration corresponding to a micelle saturated with the solubilizate under the conditions of the experiment. Two conclusions can, therefore, be drawn: the presence of a solubilized indicator always lowers the CMC, and this lowering reaches a maximum if the micelle is saturated with the indicator during the determination.

If the solubilizate is assumed to form an ideal solution in the micelle and related simplifying assumptions are made, it has been shown by Shinoda [*38*] that the CMC is changed by a factor $(1-1.36x)$ for an ionic surfactant where x is the mole fraction of additive in the micelle. For the nonionic case, the factor becomes simply $(1-x)$. The value of x depends, of course, on the concentration of micelles at the point taken as the CMC, the total available amount of indicator, and its solubility in water and in the micelle.

An additional and often neglected complication occurs when the indicator is a high molecular weight organic ion such as most of the dyes used in the spectral change methods, in particular pinacyanole. If the charge of the dye is the opposite of that of the surfactant, an insoluble salt may form. In fact, such a salt generally does form [*39–41*] as is evident from the color change produced by sub-CMC amounts of surfactant. This precipitate often remains finely dispersed by an excess of the surfactant and escapes detection. It is this precipitate which then becomes solubilized by micelles when the concentration of surfactant is further increased, causing a second color change that is generally reported as the CMC. The indicators are mostly used in small concentrations $(10^{-4}-10^{-5}M)$ so that the amount of surfactant consumed by precipitation is often negligible compared to the CMC but can become significant for low CMC's.

The presence of this water-insoluble precipitate has, however, a more profound effect on the determination of the CMC: it maintains a saturated solution until the last of the precipitate is dissolved. This also

corresponds to the end of at least one absorbancy change, the disappearance of the color of the precipitate (the γ band for pinacyanole) [39]. Hence, it has the effect of producing the maximum lowering of the CMC through the actual determination range in many of these methods. Lowering the dye concentration reduces the fraction of surfactant used up in precipitating the dye but does not affect significantly the degree of saturation of the micelles at the color change.

Saturation by the indicator in case of *oppositely* charged dyes is particularly objectionable because of their frequently high solubility in the micelles. Thus, the solubility of pinacyanole was estimated at 15 to 20 mole percent, in the first mixed micelles that formed [39].

There are other methods of CMC determinations in which the situation is more favorable, either because saturation of the micelle is avoided or because the mole fraction at saturation is much lower. In the former category falls the use of *similarly* charged dyes. The formation of a water-insoluble, micelle-soluble salt is then avoided; the dye remains in aqueous undersaturated solution and its mole fraction in the micelle is only a corresponding fraction of saturation. Unfortunately, no methodical studies on this approach are known to us. In the same class are dye or iodine methods used with nonionic surfactants.

Some of the solubilization methods use nonionic, water-insoluble dyes whose solubility in the micelles is known to be low. "Orange OT" is the most popular of these, and here it is known [42–44] that the mole fraction at saturation is about 0.01, thus producing a generally negligible error. Some of the other solubilized indicators such as lauryl alcohol or toluene are likely to lead to mole fractions, and hence CMC changes, of the order of 10 percent or more.

The above discussion makes clear our objection to accepting values, obtained in the presence of easily solubilized indicators under conditions favoring saturation, as valid CMC measurements for the surfactant itself. They are classified as G as far as "Method Quality" is concerned, indicating that a substantial methodical error is likely to be present. On the other hand, such data could be, in principle, excellent values for the mixed system (surfactant + indicator + water). In the great majority of the cases this is not so because the conditions are not sufficiently specified and the proportion of additive often unstated. In some cases, however, we were able to treat the data in just this way and some of the indicators may be found among the additives.

6. *The effect of impurities.* What has been said above about the effect of indicators applies to the effect of any impurities with the important provision that indicators are added consciously and generally specified in an article, whereas impurities are included inadvertently and their nature is uncertain. We have always scanned an article for clues to the presence and nature of impurities. Such clues can be found in details of the method of preparation, of analyses, and of other physical constants or properties reported. The results are included in our "quality rating" of the compound. In general we have been more skeptical of the older measurements performed before concern about the effect of impurities became widespread and modern analytical techniques were developed. We have given great weight to foam purification at a concentration below the CMC and to chromatographic methods.

The effect of impurities upon the CMC value depends both on the nature of the impurities and on the method used in the determination. We can learn something about the effects of different classes of impurities from their effects upon the CMC when they are added deliberately as "additives." Some have little effect unless present in concentrations too high ever to be reached by impurities. Hydrophilic organic compounds such as sugar or ethanol are in this class as are "inert" salts. On the other hand, oleophilic impurities and salts containing ions forming water-insoluble easily solubilized precipitates can have large effects as we have seen in connection with indicators because they tend to saturate the few micelles present at the CMC and lower the activity of surfactant in them. Higher homologues or incompletely reacted organic intermediates such as alcohols are among objectionable impurities likely to be encountered.

The case of true soaps, i.e., salts of higher carboxylic acids, merits a special mention. Here the acid itself, highly water-insoluble and easily solubilized, is the most important impurity. Some of it is normally formed by hydrolysis and must be considered as a normal constituent of the (water-surfactant) system. Additional substantial amounts are readily formed unless the presence of atmospheric carbon dioxide is carefully excluded. If precautions to this effect were not explicitly mentioned, we assumed that the system was impure and gave it a "D" rating. The effect of CO_2 can be largely neutralized by operating in the presence of a slight

excess of base. The CMC is not likely to differ substantially from that of the pure system but we have always reported such experiments among systems with additives, specifying the nature and concentration of the base used whenever possible.

The effect of an impurity upon different methods of determining the CMC is largely unknown. Some of our unpublished experiments suggest that traces have a larger effect on values obtained by plotting the equivalent conductivity than those obtained by plotting the specific conductance for the same systems. Dye indicator methods seem to give particularly low results in the presence of higher homologues or intermediates because both tend to concentrate in the first mixed micelles formed. It is likely that pinacyanole may change color by dissolving in droplets of emulsified higher alcohol far below the CMC [*45*].

The best studied effect is that of a surface active impurity upon the surface tension method. It is now well understood that such impurities may lower the surface tension significantly below the CMC and then become solubilized sufficiently in micelles to be more or less completely removed from the surface [*6*, *46–48*]. This leads then to a higher surface tension after an intermediate minimum. As already mentioned, such minima have been often used as CMC values but we now take them as *prima facie* evidence of the presence of easily solubilized—and therefore significant—impurities or hydrolysis products.

An impurity leading to a minimum must have a surface activity at least comparable with that of the surfactant. If the surfactant is very surface active, the same impurity may remain unnoticed. This is shown by experiments of Harrold [*49*] who found that addition of salt (which increases the surface activity of the ionic surfactant much more than that of the alcohol) leads to a disappearance of the minimum along with a lowering of surface tension and of the CMC. Hence, the more surface active the surfactant, the less significant is the absence of a minimum as a criterion of purity.

When a minimum is present it becomes difficult if not impossible to obtain an accurate value for the CMC from surface tension measurements. However, even when a minimum is absent it seems that the surface tension method is particularly strongly affected by traces of impurities. This is a point which became apparent gradually in the course of our evaluations. Initially, we rated careful surface tension measurements showing no minima as BB. Later,

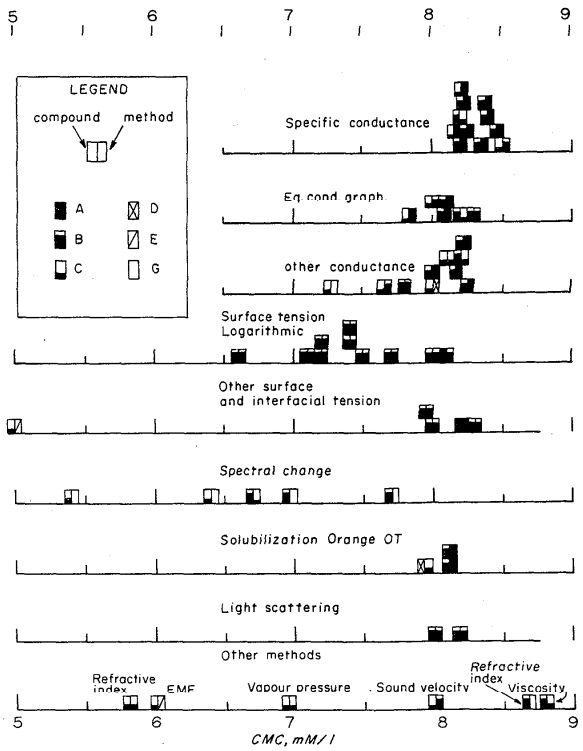


FIGURE 7. *All the critical micelle concentrations for sodium dodecyl sulfate at temperatures between 20 and 30 °C, carrying a quality rating of C–G or better, obtained by various experimental methods.*

Each square represents a determination and as shown in detail in the legend, the amount of black increases with the quality of the determination. It may be seen that CMC's determined by surface tension from a logarithmic plot scatter much more than other high-quality data obtained by a single method.

we found that this was often an overestimate of the accuracy of the method, although the details of the source of error remain obscure. Figure 7 illustrates our case. It shows all the measurements rated CC or better, and CG for sodium dodecyl sulfate at $25 \pm 5°$. Values obtained by different methods are shown on separate lines and the shading of the points indicates their individual quality rating. It may be seen that for conductance methods and for the miscellaneous ones the better values cluster together and the methodical difference mentioned earlier between equivalent and specific conductance plots is visible. The spectral change methods give, as would be expected, widely scattered results. However, the surface tension values rated BB, although not nearly as bad as the spectral change ones, cover a surprisingly wide range and show no clustering near the CMC expected for the pure compound. Part of this may be due to differences in extrapolation, but measurements on an especially

carefully purified sample (foamed in situ) yielded much more acceptable values using different ranges of points. This suggests that residual impurities are to blame. It also suggests that for surfactants having greater surface activity the effect may well be reduced, but there are no data to test this hypothesis.

As a result of these considerations we did not depend on surface tension values alone for any "confirmed" result although we have used them occasionally to confirm results obtained by another method. We have also used them more liberally for the nonionic compounds both because these are more surface active and because alternatives are fewer.

For the sake of consistency, we have maintained the BB rating for this type of data throughout in the individual quality evaluations.

7. Scope of this Collection

Micelle-forming systems cover a wide variety of molecular species which have in common one feature often described as amphipathy, a built-in asymmetry in the molecule which is composed of a nonpolar, hydrophobic portion, and a polar, hydrophilic part. The systems we have covered include monomers containing straight or branched aliphatic chains, sometimes partly or completely halogenated, and sometimes partly aromatic, with a wide variety of head groups, nonionic, zwitterionic, or ionic, including a variety of counterions in the last case. The solvents are aqueous, partially or completely; in a few systems the medium is heavy water. The variables which are explicitly cataloged, are temperature, pressure (except when it is atmospheric), the nature and the concentration of additives to the medium, the experimental method used, and the type and source of the CMC data themselves.

Certain types of systems were excluded intentionally. The reasons for such exclusions are given.

The association of monomers to produce oligomers and multimers in solution is a frequently observed phenomenon. The existence of a critical micelle concentration, however, requires fairly large multimers (containing roughly 20 or more monomers) in preference to small oligomers. Thus, for example, if monomers associate to produce dimers, trimers, and higher multimers with approximately equal stepwise association constants (the association constant describing the equilibrium between the Nth mer, the $(N+1)$th mer and the monomer), the degree of aggregation is a mild function of the total concentration; the aggregates are very polydisperse, and the system does not show any pronounced critical concentration.

The difference between systems which exhibit fairly sharp critical concentrations and those which do not is obviously a matter of degree. It seems, however, that the requirement of relatively greater stability of large multimers as compared to small oligomers is met mainly by monomeric systems which contain some flexible aliphatic chains. Those monomers which contain fused aromatic ring systems, such as dyes and other flat organic molecules, or fused alicyclic systems such as bile-salts, are expected to have, and seem to have in fact, rather diffuse and extended concentration ranges over which the degree of association increases from low to high values. For many such systems, CMC values have been reported in the literature [*50*]. Because of the relatively greater uncertainty of defining and determining the CMC values in such systems, particularly when the average degree of association is small, we have not extended our compilation to such systems. We have, however, recorded CMC values for many systems where the monomer is partly aromatic and partly aliphatic.

The phenomenon of micelle formation in aqueous systems is primarily a result of hydrophobic interactions. Hydrophobic interactions are a net result of a number of factors involving structural rearrangements of water molecules and solute-solvent, solvent-solvent, and solute-solute van der Waal's interactions. It is, therefore, not unlikely that in solvents other than water, similar interactions, perhaps on a reduced scale, can occur to produce other kinds of "solvophobic" bonding. In our compilation, we have many examples of mixed aqueous-nonaqueous systems including such media as 96 percent sulfuric acid. It is expected that future research will provide examples of micellization in many other completely nonaqueous systems where the micelles will have essentially the same kind of structure as in aqueous media, namely a hydrocarbonoid core and a polar interface.

When the medium is nonpolar, however, e.g., benzene or other hydrocarbon-like solvents, it is relatively improbable that the hydrophobic moiety of the monomers will have any great tendency to aggregate. For such systems, any aggregation that occurs is more likely to be due to the association of the hydrophilic groups of the monomers, which are now "solvophobic," to produce micelles of the

opposite kind of structure, i.e., "invert micelles," having a core composed of the hydrophilic groups of the monomers with the hydrocarbon groups remaining outside. Although such associations have been studied, and CMC values have been quoted [*51–54*], considerable uncertainty remains about their significance. We have, therefore, excluded such systems from our compilation.

Well above the CMC, in aqueous media, there occur extensive interactions between micelles, which are often difficult to unravel, particularly if the micelles are ionic. In such concentrated solutions, many physical properties of solutions exhibit breaks or kinks somewhat similar to the ones that occur at the CMC where micelles first form. The concentrations where such breaks or kinks occur are often described as "the second CMC" [*55, 56*]. The second CMC is not well understood, but it clearly involves changes in inter-micellar interactions as also monomer-micelle interactions. These "higher CMC" values have also been excluded from our compilation.

While the above restrictions imposed on our compilation are voluntary, there are some involuntary omissions and probable errors which must be mentioned. Of foremost concern, of course, is that many publications must have been missed altogether. A balance has had to be struck between completeness of coverage (up to December 1966) and inordinate delays in producing this report. It is hoped that not many high quality data on well-characterized systems have been omitted. It is probably unwise to hazard a guess as to what percentage of available CMC values in the literature has been missed, but we hope that it is below 10 percent. It is possible, also, that some CMC values in the publications we have examined have been unintentionally overlooked. We hope that readers of this report who note either of such omissions will draw them to our attention.

8. Methods and Techniques in the Collection of Data

This section deals with some of the problems we encountered in the retrieval of the literature pertaining to CMC measurements and in obtaining numerical values of the CMC.

Because of the wide-spread importance of and interest in surfactants in solution, CMC values appear in a wide variety of journals. As the values themselves are often of auxilliary and secondary interest to the main purposes of the investigation, neither the expression "critical micelle concentration" nor the word "micelle" may appear in the title of the articles. For the standard methods of literature search using Chemical Abstracts and other such publications, we, therefore, had to use a variety of key words for searching purposes. Use was made whenever possible of published books and review articles for the entries they provide into the literature. It was found necessary, however, to make extensive use of personal appeals to various investigators in the field of surfactant solutions to provide references to published work.

To obtain numerical values of the CMC, several procedures had to be used, as indicated by the source symbols. All numerical values quoted in the publications were given the source symbol T. The majority of these values were found in tables, but a substantial number were found dispersed in the written part of the text of the papers. It was necessary, therefore, to scrutinize the whole paper carefully. Of about 4700 numerical values reported in this compilation, 3207, or 68 percent, were obtained from this "direct" source. Numerical data were thus not available in the published literature for about 1500 CMC values which had to be obtained from various "indirect" sources described below.

In many publications, CMC values themselves are presented in graphical form, or some measured physical property of surfactant solutions is plotted as some function of the concentration, so that the CMC can be obtained from the "breaks" in the curves. A large number of numerical values of this type, i.e., values which are not given in the papers, were obtained by indirect means. A total of 598 values, given the source symbol L, involve, in addition to the published data, a private communication from an author. 515 values were "read" from published graphs and are given the source symbol G. 122 values used combined sources, GL. 90 CMC values were obtained from the kinks of published graphs of some physical property vs. concentration and are given the source symbol K.

In many publications, numerical values of some physical property measured, e.g., conductance, are tabulated as a function of concentration. When such measurements seemed to be of high quality, we obtained CMC values by making plots ourselves of the physical property measured. These CMC values, 96 in all, were given the source symbol P.

A small number of values, 21, were obtained by solving published equations relating numerical

values of some physical property, particularly conductance, with concentration, below and above the CMC. These have the source symbol E.

43 CMC values have combined source symbols, e.g., TL, KL, indicating dual sources of the values. These include 13 containing the symbol A, which denotes values which have been corrected for obvious misprints.

A substantial number of entries in the compilation do not report numerical CMC values because the entries either give a cross-reference to mixed surfactant systems, involve references to published graphical data for which retrieval was uncertain, or relate to numerical values obtained using criteria which we consider questionable.

The private correspondence from several investigators contained numerical data and references to unpublished work. We have not used these data in our present compilation.

A partial justification of the use of the various "indirect" sources referred to above is that their contributions to the categories of all selected data are high. Out of 620 data included in the categories 1, 2, 3, and D, only 270 were obtained from tabulated sources, T. Thus, 56 percent of all selected data are from "indirect" sources. Similarly, of the 106 confirmed (1) and recommended (2) CMC values, 67 are from "indirect" sources, not readily available from the literature.

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STRUCTURAL INDEXES OF COMPOUNDS WITH KEYS TO COMPOUND NUMBERS

PART 1. *GROUPED BY CHARGE* (Arranged by number of carbon atoms in longest hydrophobic tail and by heads)

A. Anionics
B. Cationics
C. Nonionics

PART 2. *GROUPED BY CHARGE AND HEAD GROUPS* (Arranged by number of carbon atoms in longest hydrophobic tail and by heads)

A. Anionics
B. Cationics
C. Nonionics

PART 3. *GROUPED BY STRUCTURE OF HYDROPHOBIC PART* (Arranged by number of carbon atoms in longest hydrophobic tail)

A. Alkanes by Branching and Number of Carbon Atoms
B. Alkyl Aryl
C. Unsaturated and Substituted
D. Heterocyclic

PART 4. *POLYOXYETHYLENES GROUPED BY DISTRIBUTION OF HEADS* (Arranged by number of carbon atoms in longest hydrophobic tail and by heads)

A. Homogeneous Head Groups
B. Reduced Polydispersity of Head Groups
C. Natural Distribution of Head Groups

PART 5. *IONICS GROUPED BY COUNTERION* (Arranged by number of carbon atoms in longest hydrophobic tail and by heads)

A. Anionics
B. Cationics

PART 6. *COMMERCIAL NAMES AND ILL DEFINED STRUCTURES* (Arranged alphabetically)

Structural Indexes of Compounds with Keys to Compound Numbers

PART 1. *Grouped by charge and arranged by number of carbon atoms in longest hydrophobic tail and by heads.*

1A. ANIONICS BY NUMBER OF CARBON ATOMS

C-1

428 PERFLUORO ACETIC ACID

C-2

429 PERFLUORO PROPIONIC ACID

C-3

43 BUTYRIC ACID
430 PERFLUORO BUTYRIC ACID
452 3-4-DICHLOROPERFLUORO BUTYRIC/KEL-F/ACID
699 SODIUM BUTYRATE
272 TRI-ISOPROPYL BENZENE SULFONIC ACID
271 SODIUM TRI-ISO-PROPYL BENZENE SULFONATE

C-4

484 SODIUM PENTANOATE/VALERATE/
257 SODIUM DI-N-BUTYL SULFOSUCCINATE
261 SODIUM DI-ISOBUTYL SULFOSUCCINATE
681 SODIUM DIBUTYL BENZENE SULFONATE
445 SODIUM PARA-BIS-/N-BUTYL/ BENZENE SULFONATE
682 SODIUM DIBUTYL NAPHTHALENE SULFONATE /NEKAL/

C-5

700 HEXANOIC ACID
416 PERFLUORO HEXANOIC ACID
453 3-5-6-TRICHLOROPERFLUORO HEXANOIC/KEL-F/ACID
188 POTASSIUM HEXANOATE
701 POTASSIUM PERFLUOROHEXANOATE
485 SODIUM HEXANOATE/CAPROATE/
343 SODIUM PENTANE SULFONATE
258 SODIUM DI-N-AMYL SULFOSUCCINATE

C-6

296 POTASSIUM HEPTANOATE
374 DODECAFLUOROHEPTANOIC ACID H/CF2/6COOH
486 SODIUM HEPTANOATE
355 AMMONIUM DODECAFLUOROHEPTANOATE H/CF2/6COONH4
352 SODIUM DI-1-METHYLISOAMYL SULFOSUCCINATE
259 SODIUM DI-N-HEXYL SULFOSUCCINATE
344 SODIUM HEXANE SULFONATE
339 MAGNESIUM HEXANE SULFONATE
501 SODIUM HEXYL BENZENE SULFONATE
446 SODIUM PARA-BIS-/N-HEXYL/ BENZENE SULFONATE
704 POTASSIUM 4-HEXYL RESORCINOLATE

C-7

529 OCTANOIC ACID
417 PERFLUORO OCTANOIC ACID
454 3-5-7-8-TETRACHLOROPERFLUORO OCTANOIC/KEL-F/ACID
476 SODIUM OCTANOATE
44 POTASSIUM OCTANOATE
456 POTASSIUM PERFLUORO OCTANOATE
284 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-OCTANOATE
303 DI-ISOPROPYLAMONIUM CAPRYLATE
502 SODIUM HEPTYL BENZENE SULFONATE

C-8

375 HEXADECAFLUORONONANOIC ACID H/CF2/8COOH
487 SODIUM NONANOATE
350 POTASSIUM NONANOATE
372 AMMONIUM HEXADECAFLUORONONANOATE H/CF2/8 COO NH4
420 POTASSIUM 1-1-2-OCTANE TRICARBOXYLATE
6 SODIUM ALPHA SULFOPELARGONIC ACID
25 SODIUM ETHYL ALPHA SULFOPELARGONATE
26 SODIUM AMYL ALPHA SULFOPELARGONATE
27 SODIUM HEXYL ALPHA SULFOPELARGONATE
28 SODIUM HEPTYL ALPHA SULFOPELARGONATE
7 SODIUM OCTYL ALPHA SULFOPELARGONATE
31 SODIUM 2 OCTYL ALPHA SULFOPELARGONATE
32 SODIUM 2 ETHYLHEXYL ALPHA SULFOPELARGONATE
35 SODIUM H/CF2CF2/3CH2 ALPHA SULFOPELARGONATE
611 ALPHAPHOSPHONO PELARGONIC ACID
605 SODIUM AMYL ALPHAPHOSPHONO PELARGONATE
260 SODIUM DI-N-OCTYL SULFOSUCCINATE
262 SODIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE
286 AMMONIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE
2 SODIUM OCTYL 1 SULFATE
66 SODIUM OCTYL 2 SULFATE
347 OCTYL TRIMETHYLAMMOMIUM OCTYL SULFATE
643 DODECYL TRIMETHYLAMMONIUM OCTANE SULFATE
181 SODIUM OCTYL 1-SULFONATE
340 MAGNESIUM OCTANE SULFONATE
287 OCTYL TRIMETHYLAMMONIUM OCTANE SULFONATE
503 SODIUM OCTYL BENZENE SULFONATE
49 SODIUM P OCTYL BENZENE SULFONATE
172 SODIUM 2-N-OCTYL BENZENE SULFONATE
510 SODIUM 2-ETHYL-HEXYL BENZENE SULFONATE
676 SODIUM 1,1,3,3-TETRAMETHYL BUTYL BENZENE SULFONATE
447 SODIUM PARA-BIS-/N-OCTYL/ BENZENE SULFONATE
677 SODIUM DI-/1,1,3,3-TETRAMETHYL BUTYL/BENZENESULFONATE

C-9

530 DECANOIC ACID
455 PERFLUORO DECANOIC ACID
299 SODIUM DECANOATE
90 POTASSIUM DECANOATE
702 POTASSIUM PERFLUORODECANOATE
668 DIPOTASSIUM OCTYL MALONATE
29 SODIUM NONYL ALPHA SULFOPELARGONATE
612 ALPHAPHOSPHONO DECANOIC ACID
616 MONOSODIUM ALPHAPHOSPHONO DECANOATE
606 SODIUM AMYL ALPHAPHOSPHONO CAPRATE
136 SODIUM ALPHA DIMETHYL AMINO CAPRATE
295 SODIUM NONYL 1-SULFATE
536 NONYL SULFONIC ACID
504 SODIUM NONYL BENZENE SULFONATE
493 *SODIUM P-NONYL BENZENE SULFONATE*
138 SODIUM NONYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN

C-10

297 POTASSIUM UNDECANOATE
373 AMMONIUM EICOSAFLUOROUNDECANOATE H/CF2/10 COO NH4
425 POTASSIUM 1-1-2-DECANE TRICARBOXYLATE
30 SODIUM DECYL ALPHA SULFOPELARGONATE
33 SODIUM /OXO/ DECYL ALPHA SULFOPELARGONATE
3 SODIUM DECYL 1 SULFATE
15 SODIUM DECYL 2 SULFATE
642 OCTYL TRIMETHYLAMMONIUM DECANE SULFATE
346 DECYL TRIMETHYLAMMONIUM DECYL SULFATE
182 SODIUM DECYL 1-SULFONATE
341 MAGNESIUM DECANE SULFONATE
353 OCTYL TRIMETHYLAMMONIUM DECANE SULFONATE
288 DECYL TRIMETHYLAMMONIUM DECANE SULFONATE
505 SODIUM DECYL BENZENE SULFONATE
50 SODIUM P DECYL BENZENE SULFONATE
173 SODIUM 2-N-DECYL BENZENE SULFONATE
140 SODIUM DECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
511 SODIUM 2-PROPYL-HEPTYL BENZENE SULFONATE

C-11

531 DODECANOIC ACID
273 SODIUM DODECANOATE
91 POTASSIUM DODECANOATE
627 CESIUM DODECANOATE
277 BENZYL TRIMETHYL AMMONIUM DODECANOATE
527 SODIUM UNDECANE-3-CARBOXYLATE
669 DIPOTASSIUM DECYL MALONATE
602 ALPHA SULFO LAURIC ACID
235 SODIUM ALPHA SULFO LAURIC ACID
603 SODIUM PROPYL ALPHA SULFO LAURATE
613 ALPHAPHOSPHONO DODECANOIC ACID
617 MONOSODIUM ALPHAPHOSPHONO DODECANOATE
620 DISODIUM ALPHAPHOSPHONO DODECANOATE
607 SODIUM ISOPROPYL ALPHAPHOSPHONO LAURATE
311 SODIUM UNDECYL 1-SULFATE
72 SODIUM UNDECYL 3 SULFATE

PART 1. *Grouped by charge and arranged by number of carbon atoms in longest hydrophobic tail and by heads*—Continued

80 SODIUM UNDECYL 6 SULFATE
462 SODIUM MONOLAURIN SULFATE
639 SODIUM UNDECYL THIOSULFATE
537 UNDECYL SULFONIC ACID
418 SODIUM UNDECYL SULFONATE
45 SODIUM P 1 METHYL DECYL BENZENE SULFONATE
678 SODIUM 1,1-DIMETHYLNONYL BENZENE SULFONATE
679 SODIUM 3-BUTYL HEPTYL BENZENE SULFONATE

C-12

351 POTASSIUM TRIDECANOATE
421 POTASSIUM 1-1-2-DODECANE TRICARBOXYLATE
34 SODIUM DODECYL ALPHA SULFOPELARGONATE
632 POTASSIUM N-DODECYL BETA-ALANINATE
705 DODECYL SULFURIC ACID
1 SODIUM DODECYL 1 SULFATE
67 SODIUM DODECYL 2 SULFATE
634 POTASSIUM DODECYL SULFATE
111 LITHIUM DODECYL 1 SULFATE
23 SILVER DODECYL 1 SULFATE
568 MAGNESIUM DODECYL SULFATE
24 CALCIUM DODECYL 1 SULFATE
569 STRONTIUM DODECYL SULFATE
572 COBALTOUS DODECYL SULFATE
573 CUPRIC DODECYL SULFATE
570 LEAD DODECYL SULFATE
571 MANGANESE DODECYL SULFATE
575 NICKEL DODECYL SULFATE
574 ZINC DODECYL SULFATE
386 AMMONIUM DODECYL SULFATE
387 METHYLAMMONIUM DODECYL SULFATE
388 ETHYLAMMONIUM DODECYL SULFATE
389 BUTYLAMMONIUM DODECYL SULFATE
112 TETRAMETHYL AMMONIUM DODECYL 1 SULFATE
383 BUTYL TRIMETHYLAMMONIUM DODECYL SULFATE
382 ETHYL TRIMETHYLAMMONIUM DODECYL SULFATE
718 TETRAETHYLAMMONIUM DODECYL SULFATE
719 TETRABUTYLAMMONIUM DODECYL SULFATE
720 1-6-DITRIMETHYLAMMONIUM-HEXANE/DODECYL SULFATE/2
409 TRIETHANOLAMMONIUM DODECYL SULFATE
410 MORPHOLINIUM DODECYL SULFATE
391 OCTYLAMMONIUM DODECYL SULFATE
385 OCTYL TRIMETHYLAMMONIUM DODECYL SULFATE
280 DECYL TRIMETHYL AMMONIUM DODECYL SULFATE
281 DODECYL TRIMETHYLAMMONIUM DODECYL SULFATE
562 SODIUM DODECENYL SULFATE
636 SODIUM DODECYL THIOSULFATE
541 SODIUM DODECYL MONO-OXYETHYLENE SULFATE
542 SODIUM DODECYL DIOXYETHYLENE SULFATE
113 SODIUM DODECYL TRI-OXYETHYLENE SULFATE
543 SODIUM DODECYL TETRA-OXYETHYLENE SULFATE
114 SODIUM DODECYL /OXYETHYLENE/17.5 SULFATE
597 SODIUM DODECYL MONO-OXYPROPYL SULFATE
200 DODECYL SULFONIC ACID
179 SODIUM DODECANE 1-SULFONATE
175 SODIUM DODECANE 2-SULFONATE
40 POTASSIUM DODECYL 1 SULFONATE
635 LITHIUM DODECYL SULFONATE
342 MAGNESIUM DODEGANE SULFONATE
238 SODIUM DODECANE 1-HYDROXY 2-SULFONATE
247 DODECANE 1-HYDROXY 2-SULFONIC ACID
506 SODIUM DODECYL BENZENE SULFONATE
51 SODIUM P DODECYL BENZENE SULFONATE
171 SODIUM 2-N-DODECYL BENZENE SULFONATE
301 SODIUM 3-N-DODECYL BENZENE SULFONATE
302 SODIUM 4-N-DODECYL BENZENE SULFONATE
514 SODIUM 6-N-DODECYL BENZENE SULFONATE
512 SODIUM 2-BUTYL-OCTYL BENZENE SULFONATE
680 SODIUM 2-PROPYL-4-METHYL-OCTYL BENZENE SULFONATE
492 SODIUM TETRAPROPYLENE/1-3-5-7-TETRAMETHYL-OCTYL/BENZENE SULFONATE
139 SODIUM DODECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN

C-13

532 TETRADECANOIC ACID
298 SODIUM TETRADECANOATE
92 POTASSIUM TETRADECANOATE
670 DIPOTASSIUM DODECYL MALONATE
189 ALPHA SULFOMYRISTIC ACID
236 SODIUM ALPHA SULFO MYRISTIC ACID
604 SODIUM METHYL ALPHA SULFO MYRISTATE
233 DISODIUM ALPHA SULFO MYRISTATE
614 ALPHAPHOSPHONO TETRADECANOIC ACID
618 MONOSODIUM ALPHAPHOSPHONO TETRADECANOATE
621 DISODIUM ALPHAPHOSPHONO TETRADECANOATE
624 TRISODIUM ALPHAPHOSPHONO TETRADECANOATE
608 SODIUM METHYL ALPHAPHOSPHONO MYRISTATE
68 SODIUM TRIDECYL 2 SULFATE
83 SODIUM TRIDECYL 7 SULFATE
242 TRIDECANE 1 SULFONIC ACID
229 SODIUM TRIDECANE 1-SULFONATE
46 SODIUM P 1 METHYL DODECYL BENZENE SULFONATE
141 SODIUM TRIDECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN

C-14

426 POTASSIUM 1-1-2-TETRADECANE TRICARBOXYLATE
4 SODIUM TETRADECYL 1 SULFATE
16 SODIUM TETRADECYL 2 SULFATE
73 SODIUM TETRADECYL 3 SULFATE
17 SODIUM TETRADECYL 4 SULFATE
77 SODIUM TETRADECYL 5 SULFATE
525 SODIUM TETRADECYL 6-SULFATE
84 SODIUM TETRADECYL 7 SULFATE
526 SODIUM 2-DI-N-HEXYL ETHYL SULFATE
637 LITHIUM TETRADECYL SULFATE
576 CUPRIC TETRADECYL SULFATE
544 SODIUM TETRADECYL MONO-OXYETHYLENE SULFATE
545 SODIUM TETRADECYL DI-OXYETHYLENE SULFATE
546 SODIUM TETRADECYL TRI-OXYETHYLENE SULFATE
598 SODIUM TETRADECYL MONO-OXYPROPYL SULFATE
599 SODIUM TETRADECYL DI-OXYPROPYL SULFATE
243 TETRADECANE 1-SULFONIC ACID
183 SODIUM TETRADECYL 1-SULFONATE
176 SODIUM TETRADECANE 2-SULFONATE
248 TETRADECANE 1-HYDROXY 2-SULFONIC ACID
239 SODIUM TETRADECANE 1-HYDROXY 2-SULFONATE
507 SODIUM TETRADECYL BENZENE SULFONATE
174 SODIUM 2-N-TETRADECYL BENZENE SULFONATE
513 SODIUM 2-AMYL-NONYL BENZENE SULFONATE

C-15

533 HEXADECANOIC ACID
300 SODIUM HEXADECANOATE
185 POTASSIUM HEXADECANOATE
671 DIPOTASSIUM TETRADECYL MALONATE
190 ALPHA SULFOPALMITIC ACID
237 SODIUM ALPHA SULFO PALMITIC ACID
234 DISODIUM ALPHA SULFO PALMITATE
36 SODIUM METHYL ALPHA SULFOPALMITATE
192 SODIUM ETHYL ALPHA SULFOPALMITATE
193 SODIUM PROPYL ALPHA SULFOPALMITATE
197 DISODIUM 2 SULFOETHYL ALPHA SULFOPALMITATE
615 ALPHAPHOSPHONO HEXADECANOIC ACID
619 MONOSODIUM ALPHAPHOSPHONO HEXADECANOATE
622 DISODIUM ALPHAPHOSPHONO HEXADECANOATE
625 TRISODIUM ALPHAPHOSPHONO HEXADECANOATE
609 SODIUM ISOPROPYL ALPHAPHOSPHONO PALMITATE
69 SODIUM PENTADECYL 2 SULFATE
74 SODIUM PENTADECYL 3 SULFATE
78 SODIUM PENTADECYL 5 SULFATE
85 SODIUM PENTADECYL 8 SULFATE
244 PENTADECANE 1-SULFONIC ACID
230 SODIUM PENTADECANE 1-SULFONATE
47 SODIUM P 1 METHYL TETRADECYL BENZENE SULFONATE
142 SODIUM PENTADECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
596 TETRAHYDROANACARDOL AMMONIUM MONOSULFONATE

C-16

422 POTASSIUM 1-1-2-HEXADECANE TRICARBOXYLATE
5 SODIUM HEXADECYL 1 SULFATE
75 SODIUM HEXADECYL 4 SULFATE
81 SODIUM HEXADECYL 6 SULFATE
86 SODIUM HEXADECYL 8 SULFATE
638 LITHIUM HEXADECYL SULFATE
577 CUPRIC HEXADECYL SULFATE
60 TRIETHANOL AMMONIUM HEXADECYL SULFATE
52 SODIUM HEXADECYL MONO OXYETHYLENE SULFATE
53 SODIUM HEXADECYL DI OXYETHYLENE SULFATE
54 SODIUM HEXADECYL TRI OXYETHYLENE SULFATE
55 SODIUM HEXADECYL TETRA OXYETHYLENE SULFATE
600 SODIUM HEXADECYL MONO-OXYPROPYL SULFATE
245 HEXADECANE 1-SULFONIC ACID
184 SODIUM HEXADECYL 1-SULFONATE
177 SODIUM HEXADECANE 2-SULFONATE
408 POTASSIUM HEXADECANE 1-SULFONATE

249 HEXADECANE 1-HYDROXY 2-SULFONIC ACID
240 SODIUM HEXADECANE 1-HYDROXY 2-SULFONATE
508 SODIUM HEXADECYL BENZENE SULFONATE

C-17

534 OCTADECANOIC ACID
448 SODIUM OCTADECANOATE /STEARATE/
256 POTASSIUM STEARATE
672 DIPOTASSIUM HEXADECYL MALONATE
263 SODIUM OLEATE /CIS-9-OCTADECENOATE/
305 POTASSIUM OLEATE/ CIS-9-OCTADECENOATE/
285 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-OLEATE
264 SODIUM ELAIDATE /TRANS-9-OCTADECENOATE/
629 POTASSIUM ELAIDATE/TRANS-9-OCTADECENOATE/
283 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-ELAIDATE
630 POTASSIUM RICINOLEATE/12 HYDROXY OLEATE/
631 POTASSIUM RICINELAIDATE/12 HYDROXY ELAIDATE/
255 POTASSIUM 9,10 DIHYDROXY STEARATE
191 ALPHA SULFOSTEARIC ACID
553 XYLYL SULFOSTEARIC ACID
9 SODIUM ALPHA SULFOSTEARIC ACID
10 DISODIUM ALPHA SULFOSTEARATE
194 SODIUM METHYL ALPHA SULFOSTEARATE
195 SODIUM ETHYL ALPHA SULFOSTEARATE
196 SODIUM PROPYL ALPHA SULFOSTEARATE
199 SODIUM ISOPROPYL ALPHA SULFOSTEARATE
198 DISODIUM 2 SULFOETHYL ALPHA SULFOSTEARATE
551 PHENYL SULFOSTEARIC ACID
11 SODIUM ALPHA SULFO PHENYL STEARIC ACID
8 DISODIUM ALPHA SULFOPHENYLSTEARATE
552 TOLYL SULFOSTEARIC ACID
14 DISODIUM 9,10 DIHYDROXY ALPHA SULFOSTEARATE
12 SODIUM 9,10 DICHLORO ALPHA SULFOSTEARIC ACID
13 DISODIUM 9,10 DICHLORO ALPHA SULFOSTEARATE
623 DISODIUM ALPHAPHOSPHONO OCTADECANOATE
626 TRISODIUM ALPHAPHOSPHONO OCTADECANOATE
610 SODIUM METHYL ALPHAPHOSPHONO STEARATE
70 SODIUM HEPTADECYL 2 SULFATE
87 SODIUM HEPTADECYL 9 SULFATE
246 HEPTADECANE 1-SULFONIC ACID
231 SODIUM HEPTADECANE 1-SULFONATE
48 SODIUM P 1 METHYL HEXADECYL BENZENE SULFONATE

C-18

64 SODIUM OCTADECYL 1 SULFATE
71 SODIUM OCTADECYL 2 SULFATE
76 SODIUM OCTADECYL 4 SULFATE
82 SODIUM OCTADECYL 6 SULFATE
65 TRIETHANOLAMMONIUM OCTADECYL 1 SULFATE
61 SODIUM OLEYL/CIS 9 OCTADECENOYL/ SULFATE
62 SODIUM ELAIDYL/TRANS 9 OCTADECENOYL/SULFATE
250 OCTADECANE 1-HYDROXY 2-SULFONIC ACID
63 SODIUM 9 10 DICHLORO OCTADECYL SULFATE
56 SODIUM OCTADECYL MONO OXYETHYLENE SULFATE
57 SODIUM OCTADECYL DI OXYETHYLENE SULFATE
58 SODIUM OCTADECYL TRI OXYETHYLENE SULFATE
59 SODIUM OCTADECYL TETRA OXYETHYLENE SULFATE
547 SODIUM OLEYL MONO-OXYETHYLENE SULFATE
548 SODIUM OLEYL DI-OXYETHYLENE SULFATE
549 SODIUM OLEYL TRI-OXYETHYLENE SULFATE
601 SODIUM OCTADECYL MONO-OXYPROPYL SULFATE
232 OCTADECANE 1-SULFONIC ACID
349 SODIUM OCTADECANE 1-SULFONATE
178 SODIUM OCTADECANE 2-SULFONATE
419 SODIUM ALPHA-HEPTYL UNDECYL SULFONATE
241 SODIUM OCTADECANE 1-HYDROXY 2-SULFONATE
509 SODIUM OCTADECYL BENZENE SULFONATE

C-19

673 DIPOTASSIUM OCTADECYL MALONATE
79 SODIUM NONADECYL 5 SULFATE
88 SODIUM 1 NONYL DECYL SULFATE

C-20

683 SODIUM EICOSYLBENZENE SULFONATE

C-29

89 SODIUM 1 TETRADECYL PENTADECYL SULFATE

1B. CATIONICS BY NUMBER OF CARBON ATOMS

C-3

706 PERFLUORO PROPYLAMINE
707 PERFLUORO PROPYLAMINE HYDROCHLORIDE

C-6

708 HEXYLAMINE
709 HEXYLAMINE HYDROCHLORIDE
390 HEXYLAMMONIUM DODECYL SULFATE
640 HEXYL TRIMETHYLAMMONIUM HEXANE SULFATE
644 HEXYL TRIMETHYLAMMONIUM HEXANE SULFONATE
641 HEXYL TRIMETHYLAMMONIUM OCTANE SULFATE
384 HEXYL TRIMETHYLAMMONIUM DODECYL SULFATE
354 HEXYL BENZYL DIMETHYLAMMONIUM CHLORIDE

C-8

392 OCTYLAMMONIUM CHLORIDE
391 OCTYLAMMONIUM DODECYL SULFATE
93 OCTYL TRIMETHYL AMMONIUM BROMIDE
347 OCTYL TRIMETHYLAMMOMIUM OCTYL SULFATE
287 OCTYL TRIMETHYLAMMONIUM OCTANE SULFONATE
642 OCTYL TRIMETHYLAMMONIUM DECANE SULFATE
353 OCTYL TRIMETHYLAMMONIUM DECANE SULFONATE
385 OCTYL TRIMETHYLAMMONIUM DODECYL SULFATE
483 DIOCTYL DIMETHYL AMMONIUM CHLORIDE
135 OCTYL C BETAINE HYDROCHLORIDE
359 OCTYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
100 OCTYL PYRIDINIUM BROMIDE
451 PARA DI-ISOBUTYLPHENOXYETHOXYETHYL DIMETHYLBENZYL AMMONIUM CHLORIDE/HYAMINE 1622/

C-9

94 NONYL TRIMETHYL AMMONIUM BROMIDE
137 ALPHA DIMETHYLAMINO CAPRIC ACID HYDROCHLORIDE

C-10

37 DECYLAMMONIUM CHLORIDE
411 DECYLAMMONIUM ACETATE
203 DECYL TRIMETHYL AMMONIUM CHLORIDE
95 DECYL TRIMETHYL AMMONIUM BROMIDE
306 DECYL TRIMETHYLAMMONIUM SULFATE
346 DECYL TRIMETHYLAMMONIUM DECYL SULFATE
288 DECYL TRIMETHYLAMMONIUM DECANESULFONATE
280 DECYL TRIMETHYL AMMONIUM DODECYL SULFATE
356 DECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
360 DECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
458 DECYL PYRIDINIUM IODIDE

C-11

96 UNDECYL TRIMETHYL AMMONIUM BROMIDE
101 UNDECYL PYRIDINIUM BROMIDE
304 CATOL 607 (N-/LAURYL-COLAMINO-FORMYL-METHYL/ - PYRIDINIUM CHLORIDE)
560 EMULSOL 607L (N-(2-KETO-2-(2,-LAUROYLOXYETHYL AMINO)) ETHYL) PYRIDINIUM CHLORIDE

C-12

38 DODECYL AMMONIUM CHLORIDE
628 DODECYLAMMONIUM BROMIDE
482 DODECYL AMMONIUM NITRATE
412 DODECYLAMMONIUM ACETATE
449 DODECYLMETHYL AMMONIUM CHLORIDE
450 DODECYLDIMETHYL AMMONIUM CHLORIDE
399 DODECYL DIMETHYL ETHYLAMMONIUM CHLORIDE
345 DIDODECYL DIMETHYLAMMONIUM CHLORIDE
41 DODECYL TRIMETHYL AMMONIUM CHLORIDE
97 DODECYL TRIMETHYL AMMONIUM BROMIDE
126 DODECYL TRIMETHYLAMMONIUM IODIDE
130 DODECYL TRIMETHYL AMMONIUM FLUORIDE
131 DODECYL TRIMETHYLAMMONIUM NITRATE
129 DODECYL TRIMETHYL AMMONIUM BROMATE
127 DODECYL TRIMETHYL AMMONIUM IODATE
307 DODECYL TRIMETHYLAMMONIUM SULFATE
128 DODECYL TRIMETHYL AMMONIUM FORMATE
643 DODECYL TRIMETHYLAMMONIUM OCTANE SULFATE
281 DODECYL TRIMETHYLAMMONIUM DODECYL SULFATE
400 DODECYL METHYL DIETHYLAMMONIUM CHLORIDE
401 DODECYL TRIETHYLAMMONIUM CHLORIDE
22 DIMETHYL DODECYL AMINE OXIDE HYDROCHLORIDE
293 DODECYL DIMETHYL AMINE OXIDE HYDROBROMIDE
633 N-DODECYL BETA-ALANINE HYDROCHLORIDE
124 DODECYL N BETAINE HYDROCHLORIDE
500 DODECYL TRI/2-HYDROXYETHYL/AMMONIUM CHLORIDE
279 DODECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
403 DODECYL DIMETHYLPHENYLAMMONIUM CHLORIDE
404 DODECYL DIMETHYL 2-PHENYLETHYLAMMONIUM CHLORIDE C6H5CH2CH2/N/CH3/2/C12H25

407 DODECYL DIMETHYL 3-PHENYLPROPYLAMMONIUM CHLORIDE C6H5CH2CH2/N/CH3/2/C12H25
405 DODECYL METHYLETHYLBENZYLAMMONIUM CHLORIDE
371 DODECYL 3-4-DIMETHOXYBENZYL DIMETHYLAMMONIUM CHLORIDE
370 DODECYL 3-4-METHYLENEDIOXYBENZYL DIMETHYLAMMONIUM CHLORIDE
365 DODECYL 2-CHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
367 DODECYL 4-CHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
366 DODECYL 2-4-DICHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
369 DODECYL 3-4-DICHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
406 DODECYL DIMETHYL META-TRIFLUOROMETHYLBENZYL AMMONIUM CHLORIDE CF3C6H4CH2/N/CH3/2/C12H25
361 DODECYL 4-NITROBENZYL DIMETHYL AMMONIUM CHLORIDE
368 DODECYL 2-HYDROXY-5-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
278 DODECYL PYRIDINIUM CHLORIDE
290 DODECYL PYRIDINIUM BROMIDE
376 DODECYL PYRIDINIUM IODIDE
717 DODECYLQUINOLINIUM BROMIDE
528 DODECYL TROPYLIUM PERCHLORATE
460 DODECYL TROPYLIUM MONOPHOSPHATE
491 DODECYL TROPYLIUM BISULFATE

C-13

402 TRIDECYL TRIMETHYLAMMONIUM CHLORIDE

C-14

39 TETRADECYL AMMONIUM CHLORIDE
413 TETRADECYLAMMONIUM ACETATE
42 TETRADECYL TRIMETHYL AMMONIUM CHLORIDE
98 TETRADECYL TRIMETHYL AMMONIUM BROMIDE
308 TETRADECYL TRIMETHYLAMMONIUM SULFATE
291 TETRADECYL TRIPROPYLAMMONIUM BROMIDE
125 TETRADECYL N BETAINE HYDROCHLORIDE
357 TETRADECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
362 TETRADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
102 TETRADECYL PYRIDINIUM BROMIDE
479 TETRADECYL PYRIDINIUM IODIDE

C-16

186 HEXADECYL AMMONIUM CHLORIDE
414 HEXADECYLAMMONIUM ACETATE
478 HEXADECYL DIMETHYLETHYLAMMONIUM BROMIDE
265 HEXADECYL TRIMETHYL AMMONIUM CHLORIDE
99 HEXADECYL TRIMETHYLAMMONIUM BROMIDE
309 HEXADECYL TRIMETHYLAMMONIUM SULFATE
666 HEXADECYL TRIBUTYLAMMONIUM BROMATE
292 HEXADECYL TRIPROPYLAMMONIUM BROMIDE
266 HEXADECYL DIMETHYL 2-HYDROXYETHYL AMMONIUM CHLORIDE
267 HEXADECYL DI-/2-HYDROXYETHYL/METHYL AMMONIUMCHLORIDE
268 HEXADECYL TRI-/2-HYDROXYETHYL/ AMMONIUM CHLORIDE
269 HEXADECYLDIMETHYL2,3-DIHYDROXYPROPYLAMMONIUMCHLORIDE
275 HEXADECYL DIMETHYLBENZYLAMMONIUM CHLORIDE
363 HEXADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
274 HEXADECYL PYRIDINIUM CHLORIDE
427 HEXADECYL PYRIDINIUM BROMIDE
480 HEXADECYL PYRIDINIUM IODIDE
660 HEXADECYL PYRIDINIUM IODATE
693 N-CETYL 2-METHYL PYRIDINIUM CHLORIDE
696 N-CETYL 2-METHYL PYRIDINIUM IODIDE
694 N-CETYL 3-METHYL PYRIDINIUM CHLORIDE
697 N-CETYL-3-METHYL PYRIDINIUM IODIDE
695 N-CETYL 4-METHYL PYRIDINIUM CHLORIDE
698 N-CETYL-4-METHYL PYRIDINIUM IODIDE

C-18

187 OCTADECYL AMMONIUM CHLORIDE
415 OCTADECYLAMMONIUM ACETATE
270 OCTADECYL TRIMETHYLAMMONIUM CHLORIDE
477 OCTADECYL TRIMETHYLAMMONIUM BROMIDE
654 OCTADECYL TRIMETHYLAMMONIUM NITRATE
658 OCTADECYL TRIMETHYLAMMONIUM BROMATE
659 OCTADECYL TRIMETHYLAMMONIUM FORMATE
667 OCTADECYL TRIMETHYLAMMONIUM OXALATE
662 OCTADECYL TRIETHYLAMMONIUM BROMATE
663 OCTADECYL TRIPROPYLAMMONIUM BROMATE
664 OCTADECYL TRIBUTYLAMMONIUM BROMATE
665 OCTADECYL TRIAMYLAMMONIUM BROMATE
358 OCTADECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
364 OCTADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
655 OCTADECYL PYRIDINIUM CHLORIDE
657 OCTADECYL PYRIDINIUM BROMIDE
481 OCTADECYL PYRIDINIUM IODIDE
656 OCTADECYL PYRIDINIUM NITRATE
661 OCTADECYL PYRIDINIUM IODATE

1C. NONIONICS BY NUMBER OF CARBON ATOMS

C-2

645 PARA/BETA-D-GLUCOSYL/ETHYLBENZENE

C-3

43 BUTYRIC ACID
706 PERFLURO PROPYLAMINE
646 PARA/BETA-D-GLUCOSYL/PROPYL BENZENE

C-4

647 PARA/BETA-D-GLUCOSYL/BUTYLBENZENE
650 PARA/BETA-D-XYLOSYL/BUTYL BENZENE
461 BUTYL/OXYETHYLENE/1 ALCOHOL--BUTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP
393 BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
394 1-METHYL PROPYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
674 DIISOBUTYL BENZENE/OXYETHYLENE/6 ALCOHOL (DB) BRANCHED CHAIN, NATURAL OE DISTRIBUTION

C-5

700 HEXANOIC ACID

C-6

708 HEXYLAMINE
714 HEXYL DIMETHYL AMINE OXIDE
686 HEXYL SULFINYLBUTANOL
684 HEXYL SULFINYLETHANOL
685 HEXYL SULFINYLPROPANOL
687 HEXYL SULFINYLPENTANOL
457 1-4-HEXANEDIOL
703 4-HEXYL RESORCINOL
103 HEXYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP
380 HEXYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP
381 HEXYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP
294 HEXYL/OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP
395 2-ETHYL BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP

C-7

529 OCTANOIC ACID
715 HEPTYL DIMETHYL AMINE OXIDE
586 METHYL /OXYETHYLENE/ 7.6 OCTANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS

C-8

118 OCTYL N BETAINE
132 OCTYL C BETAINE
251 OCTYL DIMETHYL AMINE OXIDE
348 NN-DIMETHYL 1-1-DIHYDROPENTADECAFLUORO OCTYL AMINE N-OXIDE /C7F15CH2N/CH3/20/
710 OCTYL DIMETHYL PHOSPHINE OXIDE
688 OCTYL SULFINYLETHANOL
689 OCTYL SULFINYLPROPANOL
690 OCTYL SULFINYLBUTANOL
691 OCTYL METHYL SULFOXIDE
648 ALPHA-D-GLUCOSYL OCTANE
424 OCTYL ALPHA-GLYCERYL ETHER
18 OCTYL BETA D GLUCOSIDE
423 OCTYL/OXYETHYLENE/1 ALCOHOL--OCTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP
104 OCTYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP
105 OCTYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
106 OCTYL /OXYETHYLENE/ 9 ALCOHOL HOMOGENOUS HEAD GROUP
515 ISO-OCTYL/OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
396 2-PROPYL PENTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
335 OCTYL BENZENE/OXYETHYLENE/8.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
675 OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
317 T-OCTYL BENZENE/OXYETHYLENE/10 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
318 T-OCTYL BENZENE/OXYETHYLENE/20 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
319 T-OCTYL BENZENE/OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
207 P-T-OCTYL BENZENE /OXYETHYLENE/1 ALCOHOL HOMOGENOUS HEAD GROUP
217 P-T-OCTYL BENZENE /OXYETHYLENE/1 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

PART 1. *Grouped by charge and arranged by number of carbon atoms in longest hydrophobic tail and by heads*—Continued

208 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL HOMOGENOUS HEAD GROUP
218 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
209 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL HOMOGENOUS HEAD GROUP
219 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
210 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL HOMOGENOUS HEAD GROUP
220 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
211 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL HOMOGENOUS HEAD GROUP
221 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
212 P-T-OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP
222 P-T-OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
213 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL HOMOGENOUS HEAD GROUP
223 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
214 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL HOMOGENOUS HEAD GROUP
224 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
215 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL HOMOGENOUS HEAD GROUP
223 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
214 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL HOMOGENOUS HEAD GROUP
224 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
215 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL HOMOGENOUS HEAD GROUP
225 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
206 TRITON X-100(P-T-OCTYL BENZENE/OXYETHYLENE/9NATURAL DISTRIBUTION OF HEAD GROUPS
216 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL HOMOGENOUS HEAD GROUP
226 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
227 P-T-OCTYL BENZENE /OXYETHYLENE/16 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
228 P-T-OCTYL BENZENE /OXYETHYLENE/40 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

C-9

530 DECANOIC ACID
254 NONYL DIMETHYL AMINE OXIDE
580 METHYL /OXYETHYLENE/ 7.0 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
581 METHYL /OXYETHYLENE/ 10.3 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
578 METHYL /OXYETHYLENE/ 11.9 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
582 METHYL /OXYETHYLENE/ 16.0 DECANOATE NATURAL DISTRIBUTION OF HEAD GROUPS
516 NONYL/OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
153 NONYL BENZENE /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
336 NONYL BENZENE/OXYETHYLENE/9.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
154 NONYL BENZENE /OXYETHYLENE/ 9.8 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
320 NONYL BENZENE/OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
167 NONYL BENZENE /OXYETHYLENE/ 10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
337 NONYL BENZENE/OXYETHYLENE/10.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
463 NONYL BENZENE/OXYETHYLENE/11 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
321 NONYL BENZENE/OXYETHYLENE/15 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
464 NONYL BENZENE/OXYETHYLENE/15 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
168 NONYL BENZENE /OXYETHYLENE/ 15 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
155 NONYL BENZENE /OXYETHYLENE/ 15.4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
322 NONYL BENZENE/OXYETHYLENE/20 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
156 NONYL BENZENE /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
323 NONYL BENZENE/OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
721 NONYL BENZENE /OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN DIALYSED
169 NONYL BENZENE /OXYETHYLENE/ 30 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
157 NONYL BENZENE /OXYETHYLENE/ 30.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
324 NONYL BENZENE/OXYETHYLENE/50 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
338 NONYL BENZENE/OXYETHYLENE/100 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

C-10

119 DECYL N BETAINE
133 DECYL C BETAINE
252 DECYL DIMETHYL AMINE OXIDE
711 DECYL DIMETHYL PHOSPHINE OXIDE
587 DECYL DIMETHYLAMMONIOPROPANE SULFONATE
692 DECYL SULFINYLETHANOL
19 DECYL BETA D GLUCOSIDE
201 DECYL /OXYETHYLENE/8 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
202 DECYL /OXYETHYLENE/11 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
204 DECYL /OXYETHYLENE/12 OXYMETHYL REDUCED POLYDISPERSION
107 DECYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP
379 DECYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP
519 DECYL/OXO-PROCESS/ /OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
378 DECYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP
143 DECYL /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
108 DECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
109 DECYL /OXYETHYLENE/ 9 ALCOHOL HOMOGENOUS HEAD GROUP
144 DECYL /OXYETHYLENE/ 10.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
517 DECYL/OXO-PROCESS/ /OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
145 DECYL /OXYETHYLENE/ 14.9 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
146 DECYL /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
147 DECYL /OXYETHYLENE/ 29.4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
397 2-BUTYL HEXYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
398 2-BUTYL HEXYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP
523 DECYL BENZENE PARA/OXYETHYLENE/11.0 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
522 DECYL BENZENE ORTHO/OXYETHYLENE/11.2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

C-11

531 DODECANOIC ACID
120 UNDECYL N BETAINE
713 UNDECYL DIMETHYL AMINE OXIDE
495 SUCROSE MONOLAURATE
276 NONAETHYLENE GLYCOL MONODODECANOATE NATURAL DISTRIBUTION OF HEAD GROUPS
583 METHYL /OXYETHYLENE/ 6.0 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
584 METHYL /OXYETHYLENE/ 9.4 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
585 METHYL /OXYETHYLENE/ 11.2 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
579 METHYL /OXYETHYLENE/ 12.5 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
440 /OXYETHYLENE/4 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
441 /OXYETHYLENE/8 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
442 /OXYETHYLENE/10 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
443 /OXYETHYLENE/20 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
444 /OXYETHYLENE/25 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS

520 UNDECYL/OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
550 LAURIC ACID DIETHANOLAMINE CONDENSATE

C-12

121 DODECYL N BETAINE
592 DODECYL N-DIETHYL N-BETAINE
134 DODECYL C BETAINE
21 DIMETHYL DODECYL AMINE OXIDE
712 DODECYL DIMETHYL PHOSPHINE OXIDE
590 DODECYL DIMETHYLAMMONIOPROPANE CARBOXYLATE
588 DODECYL DIMETHYLAMMONIOPROPANE SULFONATE
593 DIMETHYL DODECYLAMMONIOPROPANE HYDROXY SULFONATE
594 DODECYL DIPROPYL AMMONIOPROPANE SULFONATE
595 DODECYL DIMETHYL AMMONIOPROPANE SULFATE
591 DODECYL DIMETHYLPHOSPHONIOPROPANE SULFONATE
649 ALPHA-D-GLUCOSYL DODECANE
20 DODECYL BETA D GLUCOSIDE
205 DODECYL /OXYETHYLENE/12 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
325 DODECYL/OXYETHYLENE/4 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
377 DODECYL/OXYETHYLENE/ 5 ALCOHOL HOMOGENEOUS HEAD GROUP
110 DODECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
468 DODECYL/OXYETHYLENE/6.2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
488 DODECYL/OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP
115 DODECYL /OXYETHYLENE/7 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS
469 DODECYL/OXYETHYLENE/7.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
163 DODECYL /OXYETHYLENE/ 8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
489 DODECYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP
310 DODECYL/OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
470 DODECYL/OXYETHYLENE/10.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
490 DODECYL/OXYETHYLENE/12 ALCOHOL HOMOGENEOUS HEAD GROUP
164 DODECYL /OXYETHYLENE/ 12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
326 DODECYL/OXYETHYLENE/14 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
471 DODECYL/OXYETHYLENE/15.8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
716 DODECYL /OXYETHYLENE/16 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
165 DODECYL /OXYETHYLENE/ 18 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
472 DODECYL/OXYETHYLENE/20.4 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
327 DODECYL/OXYETHYLENE/23 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
166 DODECYL /OXYETHYLENE/ 23 ALCOHOL NATURAL DISTRIBUTION OF HEAD G OUPS
473 DODECYL/OXYETHYLENE/27.1 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
170 DODECYL /OXYETHYLENE/ 28 ALCOHOL REDUCED DISTRIBUTION OF HEAD GROUPS
116 DODECYL /OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS
474 DODECYL/OXYETHYLENE/38.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
475 DODECYL/OXYETHYLENE/67.3 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
518 TRIMETHYLNONYL/OXYETHYLENE/6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
158 DODECYL BENZENE /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
159 DODECYL BENZENE /OXYETHYLENE/ 10.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
160 DODECYL BENZENE /OXYETHYLENE/ 15.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
161 DODECYL BENZENE /OXYETHYLENE/ 20.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
162 DODECYL BENZENE /OXYETHYLENE/ 30.6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

C-13

532 TETRADECANOIC ACID
497 SUCROSE MONOMYRISTATE
312 TRIDECYL/OXYETHYLENE/5 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
148 TRIDECYL /OXYETHYLENE/ 5.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
431 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/8.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
465 TRIDECYL/OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
466 TRIDECYL/SECONDARY/ /OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
313 TRIDECYL/OXYETHYLENE/9.5 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
521 TRIDECYL/OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
432 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
149 TRIDECYL /OXYETHYLENE/ 10.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
467 TRIDECYL/SECONDARY/ /OXYETHYLENE/12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
314 TRIDECYL/OXYETHYLENE/14 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
433 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/15 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
150 TRIDECYL /OXYETHYLENE/ 15.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
315 TRIDECYL/OXYETHYLENE/20 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
151 TRIDECYL /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
434 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/22 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
316 TRIDECYL/OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
152 TRIDECYL /OXYETHYLENE/ 30.6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

C-14

122 TETRADECYL N BETAINE
253 TETRADECYL DIMETHYL AMINE OXIDE
289 TETRADECYL/OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP

C-15

533 HEXADECANOIC ACID
498 SUCROSE MONOPALMITATE

C-16

123 HEXADECYL N BETAINE
589 HEXADECYLDIMETHYLAMMONIOPROPANE SULFONATE
499 SUCROSE DI-PALMITATE
282 HEXADECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
330 HEXADECYL/OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP
331 HEXADECYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP
332 HEXADECYL/OXYETHYLENE/12 ALCOHOL HOMOGENEOUS HEAD GROUP
524 HEXADECYL/OXYETHYLENE/14 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
333 HEXADECYL/OXYETHYLENE/15 ALCOHOL HOMOGENEOUS HEAD GROUP
535 HEXADECYL/OXYETHYLENE/18 ALCOHOL
334 HEXADECYL/OXYETHYLENE/21 ALCOHOL HOMOGENEOUS HEAD GROUP
117 HEXADECYL /OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS

C-17

534 OCTADECANOIC ACID
496 SUCROSE MONOSTEARATE
553 XYLYL SULFOSTEARIC ACID

C-18

435 OCTADECYL/OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
328 OCTADECYL/OXYETHYLENE/14 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
436 OCTADECYL/OXYETHYLENE/20 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
329 OCTADECYL/OXYETHYLENE/100 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
437 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
438 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/16 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
439 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/20 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUP

Structural Indexes of Compounds with Keys to Compound Numbers—Continued

PART 2. *Surfactants grouped by charge and by head group and arranged by number of carbon atoms in longest hydrophobic tail.*

2A. ANIONICS BY HEAD GROUP

CARBOXYLIC ACID

428 PERFLUORO ACETIC ACID
429 PERFLUORO PROPIONIC ACID
43 BUTYRIC ACID
430 PERFLUORO BUTYRIC ACID
452 3-4-DICHLOROPERFLUORO BUTYRIC/KEL-F/ACID
700 HEXANOIC ACID
416 PERFLUORO HEXANOIC ACID
453 3-5-6-TRICHLOROPERFLUORO HEXANOIC/KEL-F/ACID
374 DODECAFLUOROHEPTANOIC ACID H/CF2/6COOH
529 OCTANOIC ACID
417 PERFLUORO OCTANOIC ACID
454 3-5-7-8-TETRACHLOROPERFLUORO OCTANOIC/KEL-F/ACID
375 HEXADECAFLUORONONANOIC ACID H/CF2/8COOH
530 DECANOIC ACID
455 PERFLUORO DECANOIC ACID
531 DODECANOIC ACID
532 TETRADECANOIC ACID
533 HEXADECANOIC ACID
534 OCTADECANOIC ACID

MONOCARBOXYLATE

699 SODIUM BUTYRATE
484 SODIUM PENTANOATE/VALERATE/
485 SODIUM HEXANOATE/CAPROATE/
188 POTASSIUM HEXANOATE
701 POTASSIUM PERFLUROHEXANOATE
486 SODIUM HEPTANOATE
296 POTASSIUM HEPTANOATE
355 AMMONIUM DODECAFLUOROHEPTANOATE H/CF2/6COONH4
476 SODIUM OCTANOATE
44 POTASSIUM OCTANOATE
456 POTASSIUM PERFLUORO OCTANOATE
303 DI-ISOPROPYLAMONIUM CAPRYLATE
284 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-OCTANOATE
487 SODIUM NONANOATE
350 POTASSIUM NONANOATE
372 AMMONIUM HEXADECAFLUORONONANOATE H/CF2/8 COO NH4
299 SODIUM DECANOATE
90 POTASSIUM DECANOATE
702 POTASSIUM PERFLUORODECANOATE
297 POTASSIUM UNDECANOATE
527 SODIUM UNDECANE-3-CARBOXYLATE
373 AMMONIUM EICOSAFLUOROUNDECANOATE H/CF2/10 COO NH4
273 SODIUM DODECANOATE
91 POTASSIUM DODECANOATE
627 CESIUM DODECANOATE
277 BENZYL TRIMETHYL AMMONIUM DODECANOATE
351 POTASSIUM TRIDECANOATE
298 SODIUM TETRADECANOATE
92 POTASSIUM TETRADECANOATE
300 SODIUM HEXADECANOATE
185 POTASSIUM HEXADECANOATE
448 SODIUM OCTADECANOATE /STEARATE/
256 POTASSIUM STEARATE
263 SODIUM OLEATE /CIS-9-OCTADECENOATE/
305 POTASSIUM OLEATE/ CIS-9-OCTADECENOATE/
285 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-OLEATE
264 SODIUM ELAIDATE /TRANS-9-OCTADECENOATE/
629 POTASSIUM ELAIDATE/TRANS-9-OCTADECENOATE/
283 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-ELAIDATE
255 POTASSIUM 9,10 DIHYDROXY STEARATE
630 POTASSIUM RICINOLEATE/12 HYDROXY OLEATE/
631 POTASSIUM RICINELAIDATE/12 HYDROXY ELAIDATE/

POLYCARBOXYLATE

668 DIPOTASSIUM OCTYL MALONATE
669 DIPOTASSIUM DECYL MALONATE
670 DIPOTASSIUM DODECYL MALONATE
671 DIPOTASSIUM TETRADECYL MALONATE
672 DIPOTASSIUM HEXADECYL MALONATE
673 DIPOTASSIUM OCTADECYL MALONATE
420 POTASSIUM 1-1-2-OCTANE TRICARBOXYLATE
425 POTASSIUM 1-1-2-DECANE TRICARBOXYLATE
421 POTASSIUM 1-1-2-DODECANE TRICARBOXYLATE
426 POTASSIUM 1-1-2-TETRADECANE TRICARBOXYLATE
422 POTASSIUM 1-1-2-HEXADECANE TRICARBOXYLATE

SULFO CARBOXYLIC ACID

6 SODIUM ALPHA SULFOPELARGONIC ACID
602 ALPHA SULFO LAURIC ACID
235 SODIUM ALPHA SULFO LAURIC ACID
189 ALPHA SULFOMYRISTIC ACID
236 SODIUM ALPHA SULFO MYRISTIC ACID
190 ALPHA SULFOPALMITIC ACID
237 SODIUM ALPHA SULFO PALMITIC ACID
191 ALPHA SULFOSTEARIC ACID
551 PHENYL SULFOSTEARIC ACID
552 TOLYL SULFOSTEARIC ACID
553 XYLYL SULFOSTEARIC ACID
9 SODIUM ALPHA SULFOSTEARIC ACID
11 SODIUM ALPHA SULFO PHENYL STEARIC ACID
12 SODIUM 9,10 DICHLORO ALPHA SULFOSTEARIC ACID

SULFO CARBOXYLATE

233 DISODIUM ALPHA SULFO MYRISTATE
234 DISODIUM ALPHA SULFO PALMITATE
197 DISODIUM 2 SULFOETHYL ALPHA SULFOPALMITATE
8 DISODIUM ALPHA SULFOPHENYLSTEARATE
10 DISODIUM ALPHA SULFOSTEARATE
198 DISODIUM 2 SULFOETHYL ALPHA SULFOSTEARATE
13 DISODIUM 9,10 DICHLORO ALPHA SULFOSTEARATE
14 DISODIUM 9,10 DIHYDROXY ALPHA SULFOSTEARATE

PHOSPHONO CARBOXYLIC ACID

611 ALPHAPHOSPHONO PELARGONIC ACID
612 ALPHAPHOSPHONO DECANOIC ACID
613 ALPHAPHOSPHONO DODECANOIC ACID
614 ALPHAPHOSPHONO TETRADECANOIC ACID
615 ALPHAPHOSPHONO HEXADECANOIC ACID

PHOSPHONO CARBOXYLATE

616 MONOSODIUM ALPHAPHOSPHONO DECANOATE
617 MONOSODIUM ALPHAPHOSPHONO DODECANOATE
618 MONOSODIUM ALPHAPHOSPHONO TETRADECANOATE
619 MONOSODIUM ALPHAPHOSPHONO HEXADECANOATE
620 DISODIUM ALPHAPHOSPHONO DODECANOATE
621 DISODIUM ALPHAPHOSPHONO TETRADECANOATE
622 DISODIUM ALPHAPHOSPHONO HEXADECANOATE
623 DISODIUM ALPHAPHOSPHONO OCTADECANOATE
624 TRISODIUM ALPHAPHOSPHONO TETRADECANOATE
625 TRISODIUM ALPHAPHOSPHONO HEXADECANOATE
626 TRISODIUM ALPHAPHOSPHONO OCTADECANOATE

SULFO CARBOXYLIC ESTER

25 SODIUM ETHYL ALPHA SULFOPELARGONATE
26 SODIUM AMYL ALPHA SULFOPELARGONATE
27 SODIUM HEXYL ALPHA SULFOPELARGONATE
28 SODIUM HEPTYL ALPHA SULFOPELARGONATE
35 SODIUM H/CF2CF2/3CH2 ALPHA SULFOPELARGONATE
7 SODIUM OCTYL ALPHA SULFOPELARGONATE
31 SODIUM 2 OCTYL ALPHA SULFOPELARGONATE
32 SODIUM 2 ETHYLHEXYL ALPHA SULFOPELARGONATE
29 SODIUM NONYL ALPHA SULFOPELARGONATE
30 SODIUM DECYL ALPHA SULFOPELARGONATE
33 SODIUM /OXO/ DECYL ALPHA SULFOPELARGONATE
34 SODIUM DODECYL ALPHA SULFOPELARGONATE
603 SODIUM PROPYL ALPHA SULFO LAURATE
604 SODIUM METHYL ALPHA SULFO MYRISTATE
36 SODIUM METHYL ALPHA SULFOPALMITATE
192 SODIUM ETHYL ALPHA SULFOPALMITATE
193 SODIUM PROPYL ALPHA SULFOPALMITATE
194 SODIUM METHYL ALPHA SULFOSTEARATE
195 SODIUM ETHYL ALPHA SULFOSTEARATE
196 SODIUM PROPYL ALPHA SULFOSTEARATE
199 SODIUM ISOPROPYL ALPHA SULFOSTEARATE

PHOSPHONO ESTER

605 SODIUM AMYL ALPHAPHOSPHONO PELARGONATE

PART 2. *Surfactants grouped by charge and by head group and arranged by number of carbon atoms in longest hydrophobic tail*—Continued

606 SODIUM AMYL ALPHAPHOSPHONO CAPRATE
607 SODIUM ISOPROPYL ALPHAPHOSPHONO LAURATE
608 SODIUM METHYL ALPHAPHOSPHONO MYRISTATE
610 SODIUM METHYL ALPHAPHOSPHONO STEARATE
609 SODIUM ISOPROPYL ALPHAPHOSPHONO PALMITATE

SULFATE

2 SODIUM OCTYL 1 SULFATE
347 OCTYL TRIMETHYLAMMOMIUM OCTYL SULFATE
643 DODECYL TRIMETHYLAMMONIUM OCTANE SULFATE
66 SODIUM OCTYL 2 SULFATE
295 SODIUM NONYL 1-SULFATE
3 SODIUM DECYL 1 SULFATE
642 OCTYL TRIMETHYLAMMONIUM DECANE SULFATE
79 SODIUM NONADECYL 5 SULFATE
346 DECYL TRIMETHYLAMMONIUM DECYL SULFATE
15 SODIUM DECYL 2 SULFATE
311 SODIUM UNDECYL 1-SULFATE
72 SODIUM UNDECYL 3 SULFATE
80 SODIUM UNDECYL 6 SULFATE

C-12

705 DODECYL SULFURIC ACID
1 SODIUM DODECYL 1 SULFATE
634 POTASSIUM DODECYL SULFATE
111 LITHIUM DODECYL 1 SULFATE
23 SILVER DODECYL 1 SULFATE
568 MAGNESIUM DODECYL SULFATE
24 CALCIUM DODECYL 1 SULFATE
569 STRONTIUM DODECYL SULFATE
575 NICKEL DODECYL SULFATE
572 COBALTOUS DODECYL SULFATE
574 ZINC DODECYL SULFATE
570 LEAD DODECYL SULFATE
571 MANGANESE DODECYL SULFATE
573 CUPRIC DODECYL SULFATE
386 AMMONIUM DODECYL SULFATE
387 METHYLAMMONIUM DODECYL SULFATE
388 ETHYLAMMONIUM DODECYL SULFATE
389 BUTYLAMMONIUM DODECYL SULFATE
112 TETRAMETHYL AMMONIUM DODECYL 1 SULFATE
382 ETHYL TRIMETHYLAMMONIUM DODECYL SULFATE
383 BUTYL TRIMETHYLAMMONIUM DODECYL SULFATE
718 TETRAETHYLAMMONIUM DODECYL SULFATE
719 TETRABUTYLAMMONIUM DODECYL SULFATE
720 1-6-DITRIMETHYLAMMONIUM-HEXANE/DODECYL SULFATE/2
409 TRIETHANOLAMMONIUM DODECYL SULFATE
410 MORPHOLINIUM DODECYL SULFATE
391 OCTYLAMMONIUM DODECYL SULFATE
385 OCTYL TRIMETHYLAMMONIUM DODECYL SULFATE
280 DECYL TRIMETHYL AMMONIUM DODECYL SULFATE
281 DODECYL TRIMETHYLAMMONIUM DODECYL SULFATE
67 SODIUM DODECYL 2 SULFATE
562 SODIUM DODECENYL SULFATE
68 SODIUM TRIDECYL 2 SULFATE
83 SODIUM TRIDECYL 7 SULFATE
4 SODIUM TETRADECYL 1 SULFATE
526 SODIUM 2-DI-N-HEXYL ETHYL SULFATE
637 LITHIUM TETRADECYL SULFATE
576 CUPRIC TETRADECYL SULFATE
16 SODIUM TETRADECYL 2 SULFATE
73 SODIUM TETRADECYL 3 SULFATE
17 SODIUM TETRADECYL 4 SULFATE
77 SODIUM TETRADECYL 5 SULFATE
525 SODIUM TETRADECYL 6-SULFATE
84 SODIUM TETRADECYL 7 SULFATE
69 SODIUM PENTADECYL 2 SULFATE
74 SODIUM PENTADECYL 3 SULFATE
78 SODIUM PENTADECYL 5 SULFATE
85 SODIUM PENTADECYL 8 SULFATE
5 SODIUM HEXADECYL 1 SULFATE
638 LITHIUM HEXADECYL SULFATE
577 CUPRIC HEXADECYL SULFATE
60 TRIETHANOL AMMONIUM HEXADECYL SULFATE
75 SODIUM HEXADECYL 4 SULFATE
81 SODIUM HEXADECYL 6 SULFATE
86 SODIUM HEXADECYL 8 SULFATE
70 SODIUM HEPTADECYL 2 SULFATE
87 SODIUM HEPTADECYL 9 SULFATE

C-18

64 SODIUM OCTADECYL 1 SULFATE
65 TRIETHANOLAMMONIUM OCTADECYL 1 SULFATE
61 SODIUM OLEYL/CIS 9 OCTADECENOYL/ SULFATE
62 SODIUM ELAIDYL/TRANS 9 OCTADECENOYL/SULFATE
63 SODIUM 9 10 DICHLORO OCTADECYL SULFATE
71 SODIUM OCTADECYL 2 SULFATE
76 SODIUM OCTADECYL 4 SULFATE
82 SODIUM OCTADECYL 6 SULFATE
88 SODIUM 1 NONYL DECYL SULFATE
89 SODIUM 1 TETRADECYL PENTADECYL SULFATE

POLYOL SULFATE

462 SODIUM MONOLAURIN SULFATE

THIOSULFATE

639 SODIUM UNDECYL THIOSULFATE
636 SODIUM DODECYL THIOSULFATE

ALKYL SULFONATE

343 SODIUM PENTANE SULFONATE
344 SODIUM HEXANE SULFONATE
339 MAGNESIUM HEXANE SULFONATE
181 SODIUM OCTYL 1-SULFONATE
340 MAGNESIUM OCTANE SULFONATE
287 OCTYL TRIMETHYLAMMONIUM OCTANE SULFONATE
536 NONYL SULFONIC ACID
288 DECYL TRIMETHYLAMMONIUM DECANESULFONATE
182 SODIUM DECYL 1-SULFONATE
341 MAGNESIUM DECANE SULFONATE
353 OCTYL TRIMETHYLAMMONIUM DECANE SULFONATE
537 UNDECYL SULFONIC ACID
410 SODIUM UNDECYL SULFONATE
200 DODECYL SULFONIC ACID
179 SODIUM DODECANE 1-SULFONATE
40 POTASSIUM DODECYL 1 SULFONATE
635 LITHIUM DODECYL SULFONATE
342 MAGNESIUM DODECANE SULFONATE
175 SODIUM DODECANE 2-SULFONATE
242 TRIDECANE 1-SULFONIC ACID
229 SODIUM TRIDECANE 1-SULFONATE
243 TETRADECANE 1-SULFONIC ACID
183 SODIUM TETRADECYL 1-SULFONATE
176 SODIUM TETRADECANE 2-SULFONATE
244 PENTADECANE 1-SULFONIC ACID
230 SODIUM PENTADECANE 1-SULFONATE
245 HEXADECANE 1-SULFONIC ACID
184 SODIUM HEXADECYL 1-SULFONATE
408 POTASSIUM HEXADECANE 1-SULFONATE
177 SODIUM HEXADECANE 2-SULFONATE
246 HEPTADECANE 1-SULFONIC ACID
231 SODIUM HEPTADECANE 1-SULFONATE
232 OCTADECANE 1-SULFONIC ACID
349 SODIUM OCTADECANE 1-SULFONATE
419 SODIUM ALPHA-HEPTYL UNDECYL SULFONATE
178 SODIUM OCTADECANE 2-SULFONATE

HYDROXY ALKYL SULFONATE

247 DODECANE 1-HYDROXY 2-SULFONIC ACID
238 SODIUM DODECANE 1-HYDROXY 2-SULFONATE
248 TETRADECANE 1-HYDROXY 2-SULFONIC ACID
239 SODIUM TETRADECANE 1-HYDROXY 2-SULFONATE
249 HEXADECANE 1-HYDROXY 2-SULFONIC ACID
240 SODIUM HEXADECANE 1-HYDROXY 2-SULFONATE
250 OCTADECANE 1-HYDROXY 2-SULFONIC ACID
241 SODIUM OCTADECANE 1-HYDROXY 2-SULFONATE

SULFOSUCCINATE DIESTER

257 SODIUM DI-N-BUTYL SULFOSUCCINATE
261 SODIUM DI-ISOBUTYL SULFOSUCCINATE
258 SODIUM DI-N-AMYL SULFOSUCCINATE
259 SODIUM DI-N-HEXYL SULFOSUCCINATE
352 SODIUM DI-1-METHYLISOAMYL SULFOSUCCINATE
260 SODIUM DI-N-OCTYL SULFOSUCCINATE
262 SODIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE
286 AMMONIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE

PARA ALKARYL SULFONATE

445 SODIUM PARA-BIS-/N-BUTYL/ BENZENE SULFONATE
446 SODIUM PARA-BIS-/N-HEXYL/ BENZENE SULFONATE
49 SODIUM P OCTYL BENZENE SULFONATE
447 SODIUM PARA-BIS-/N-OCTYL/ BENZENE SULFONATE
493 SODIUM P-NONYL BENZENE SULFONATE
50 SODIUM P DECYL BENZENE SULFONATE
45 SODIUM P 1 METHYL DECYL BENZENE SULFONATE
51 SODIUM P DODECYL BENZENE SULFONATE
46 SODIUM P 1 METHYL DODECYL BENZENE SULFONATE

PART 2. *Surfactants grouped by charge and by head group and arranged by number of carbon atoms in longest hydrophobic tail*—Continued

47 SODIUM P 1 METHYL TETRADECYL BENZENE SULFONATE
48 SODIUM P 1 METHYL HEXADECYL BENZENE SULFONATE

ALKARYL SULFONATE (UNSPECIFIED)
682 SODIUM DIBUTYL NAPHTHALENE SULFONATE /NEKAL/
681 SODIUM DIBUTYL BENZENE SULFONATE
501 SODIUM HEXYL BENZENE SULFONATE
502 SODIUM HEPTYL BENZENE SULFONATE

C-8
503 SODIUM OCTYL BENZENE SULFONATE
510 SODIUM 2-ETHYL-HEXYL BENZENE SULFONATE
676 SODIUM 1,1,3,3-TETRAMETHYL BUTYL BENZENE SULFONATE
677 SODIUM DI-/1,1,3,3-TETRAMETHYL BUTYL/BENZENESULFONATE
172 SODIUM 2-N-OCTYL BENZENE SULFONATE

C-9
504 SODIUM NONYL BENZENE SULFONATE
138 SODIUM NONYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
272 TRI-ISOPROPYL BENZENE SULFONIC ACID
271 SODIUM TRI-ISO-PROPYL BENZENE SULFONATE

C-10
505 SODIUM DECYL BENZENE SULFONATE
173 SODIUM 2-N-DECYL BENZENE SULFONATE
511 SODIUM 2-PROPYL-HEPTYL BENZENE SULFONATE
678 SODIUM 1,1-DIMETHYLNONYL BENZENE SULFONATE
679 SODIUM 3-BUTYL HEPTYL BENZENE SULFONATE
140 SODIUM DECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
561 SANTOMERSE D /SODIUM DECYLBENZENE SULFONATE/

C-12
680 SODIUM 2-PROPYL-4-METHYL-OCTYL BENZENE SULFONATE
492 SODIUM TETRAPROPYLENE/1-3-5-7-TETRAMETHYL-OCTYL/BENZENE SULFONATE
506 SODIUM DODECYL BENZENE SULFONATE
139 SODIUM DODECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
171 SODIUM 2-N-DODECYL BENZENE SULFONATE
301 SODIUM 3-N-DODECYL BENZENE SULFONATE
302 SODIUM 4-N-DODECYL BENZENE SULFONATE
514 SODIUM 6-N-DODECYL BENZENE SULFONATE
512 SODIUM 2-BUTYL-OCTYL BENZENE SULFONATE
141 SODIUM TRIDECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
554 SANTOMERSE 3 /SODIUM DODECYL BENZENE SULFONATE/

C-14
507 SODIUM TETRADECYL BENZENE SULFONATE
174 SODIUM 2-N-TETRADECYL BENZENE SULFONATE
513 SODIUM 2-AMYL-NONYL BENZENE SULFONATE
596 TETRAHYDROANACARDOL AMMONIUM MONOSULFONATE
142 SODIUM PENTADECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
508 SODIUM HEXADECYL BENZENE SULFONATE
509 SODIUM OCTADECYL BENZENE SULFONATE
683 SODIUM EICOSYLBENZENE SULFONATE
557 ARESKET 300 /MONOBUTYL BIPHENYL SODIUM MONOSULFONATE/
556 ARESKAP 100 /MONOBUTYL PHENYLPHENOL SODIUM MONOSULFONATE/
558 ARESKLENE 400 /DIBUTYL PHENYLPHENOL DISODIUMDISULFONATE

OXYPROPYL SULFATE
597 SODIUM DODECYL MONO-OXYPROPYL SULFATE
598 SODIUM TETRADECYL MONO-OXYPROPYL SULFATE
600 SODIUM HEXADECYL MONO-OXYPROPYL SULFATE
601 SODIUM OCTADECYL MONO-OXYPROPYL SULFATE
599 SODIUM TETRADECYL DI-OXYPROPYL SULFATE

OXYETHYLENE SULFATE
541 SODIUM DODECYL MONO-OXYETHYLENE SULFATE
544 SODIUM TETRADECYL MONO-OXYETHYLENE SULFATE
52 SODIUM HEXADECYL MONO OXYETHYLENE SULFATE
56 SODIUM OCTADECYL MONO OXYETHYLENE SULFATE
547 SODIUM OLEYL MONO-OXYETHYLENE SULFATE
542 SODIUM DODECYL DIOXYETHYLENE SULFATE
545 SODIUM TETRADECYL DI-OXYETHYLENE SULFATE
53 SODIUM HEXADECYL DI OXYETHYLENE SULFATE
57 SODIUM OCTADECYL DI OXYETHYLENE SULFATE
548 SODIUM OLEYL DI-OXYETHYLENE SULFATE
113 SODIUM DODECYL TRI-OXYETHYLENE SULFATE
546 SODIUM TETRADECYL TRI-OXYETHYLENE SULFATE
54 SODIUM HEXADECYL TRI OXYETHYLENE SULFATE
58 SODIUM OCTADECYL TRI OXYETHYLENE SULFATE
549 SODIUM OLEYL TRI-OXYETHYLENE SULFATE
543 SODIUM DODECYL TETRA-OXYETHYLENE SULFATE
55 SODIUM HEXADECYL TETRA OXYETHYLENE SULFATE
59 SODIUM OCTADECYL TETRA OXYETHYLENE SULFATE
114 SODIUM DODECYL /OXYETHYLENE/17.5 SULFATE

OTHER
136 SODIUM ALPHA DIMETHYL AMINO CAPRATE
704 POTASSIUM 4-HEXYL RESORCINOLATE
632 POTASSIUM N-DODECYL BETA-ALANINATE

2B. CATIONICS BY HEAD GROUP

AMINE
708 HEXYLAMINE
706 PERFLUORO PROPYLAMINE

R-H3
707 PERFLUORO PROPYLAMINE HYDROCHLORIDE
709 HEXYLAMINE HYDROCHLORIDE
390 HEXYLAMMONIUM DODECYL SULFATE
392 OCTYLAMMONIUM CHLORIDE
391 OCTYLAMMONIUM DODECYL SULFATE
37 DECYLAMMONIUM CHLORIDE
411 DECYLAMMONIUM ACETATE
38 DODECYL AMMONIUM CHLORIDE
628 DODECYLAMMONIUM BROMIDE
482 DODECYL AMMONIUM NITRATE
412 DODECYLAMMONIUM ACETATE
39 TETRADECYL AMMONIUM CHLORIDE
413 TETRADECYLAMMONIUM ACETATE
186 HEXADECYL AMMONIUM CHLORIDE
414 HEXADECYLAMMONIUM ACETATE
187 OCTADECYL AMMONIUM CHLORIDE
415 OCTADECYLAMMONIUM ACETATE

RR-H2
449 DODECYLMETHYL AMMONIUM CHLORIDE

RRR-H
450 DODECYLDIMETHYL AMMONIUM CHLORIDE

R-(CH3)3
644 HEXYL TRIMETHYLAMMONIUM HEXANE SULFONATE
640 HEXYL TRIMETHYLAMMONIUM HEXANE SULFATE
641 HEXYL TRIMETHYLAMMONIUM OCTANE SULFATE
93 OCTYL TRIMETHYL AMMONIUM BROMIDE

C-8
347 OCTYL TRIMETHYLAMMOMIUM OCTYL SULFATE
287 OCTYL TRIMETHYLAMMONIUM OCTANE SULFONATE
642 OCTYL TRIMETHYLAMMONIUM DECANE SULFATE
353 OCTYL TRIMETHYLAMMONIUM DECANE SULFONATE
385 OCTYL TRIMETHYLAMMONIUM DODECYL SULFATE

C-9
94 NONYL TRIMETHYL AMMONIUM BROMIDE

C-10
203 DECYL TRIMETHYL AMMONIUM CHLORIDE
95 DECYL TRIMETHYL AMMONIUM BROMIDE
306 DECYL TRIMETHYLAMMONIUM SULFATE
346 DECYL TRIMETHYLAMMONIUM DECYL SULFATE
280 DECYL TRIMETHYL AMMONIUM DODECYL SULFATE
288 DECYL TRIMETHYLAMMONIUM DECANESULFONATE

C-11
96 UNDECYL TRIMETHYL AMMONIUM BROMIDE

C-12
41 DODECYL TRIMETHYL AMMONIUM CHLORIDE
126 DODECYL TRIMETHYLAMMONIUM IODIDE
97 DODECYL TRIMETHYL AMMONIUM BROMIDE
130 DODECYL TRIMETHYL AMMONIUM FLUORIDE
131 DODECYL TRIMETHYLAMMONIUM NITRATE
127 DODECYL TRIMETHYL AMMONIUM IODATE
129 DODECYL TRIMETHYL AMMONIUM BROMATE

PART 2. *Surfactants grouped by charge and by head group and arranged by number of carbon atoms in longest hydrophobic tail* – Continued

307 DODECYL TRIMETHYLAMMONIUM SULFATE
128 DODECYL TRIMETHYL AMMONIUM FORMATE
643 DODECYL TRIMETHYLAMMONIUM OCTANE SULFATE
281 DODECYL TRIMETHYLAMMONIUM DODECYL SULFATE
384 HEXYL TRIMETHYLAMMONIUM DODECYL SULFATE

C-13

402 TRIDECYL TRIMETHYLAMMONIUM CHLORIDE

C-14

42 TETRADECYL TRIMETHYL AMMONIUM CHLORIDE
98 TETRADECYL TRIMETHYL AMMONIUM BROMIDE
308 TETRADECYL TRIMETHYLAMMONIUM SULFATE

C-16

265 HEXADECYL TRIMETHYL AMMONIUM CHLORIDE
99 HEXADECYL TRIMETHYLAMMONIUM BROMIDE
309 HEXADECYL TRIMETHYLAMMONIUM SULFATE
559 CATOL 605 /(N-(2-KETO-2-(2,-LAUROYL OXYETHYLAMINO))ETHYL TRIMETHYLAMMONIUM CHLORIDE/

C-18

270 OCTADECYL TRIMETHYLAMMONIUM CHLORIDE
477 OCTADECYL TRIMETHYLAMMONIUM BROMIDE
654 OCTADECYL TRIMETHYLAMMONIUM NITRATE
658 OCTADECYL TRIMETHYLAMMONIUM BROMATE
659 OCTADECYL TRIMETHYLAMMONIUM FORMATE
667 OCTADECYL TRIMETHYLAMMONIUM OXALATE

RR-(CH3)2

399 DODECYL DIMETHYL ETHYLAMMONIUM CHLORIDE
403 DODECYL DIMETHYLPHENYLAMMONIUM CHLORIDE
478 HEXADECYL DIMETHYLETHYLAMMONIUM BROMIDE
266 HEXADECYL DIMETHYL 2-HYDROXYETHYL AMMONIUM CHLORIDE
269 HEXADECYLDIMETHYL 2,3-DIHYDROXYPROPYLAMMONIUM CHLORIDE
483 DIOCTYL DIMETHYL AMMONIUM CHLORIDE
345 DIDODECYL DIMETHYLAMMONIUM CHLORIDE

BENZYL

354 HEXYL BENZYL DIMETHYLAMMONIUM CHLORIDE
356 DECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
279 DODECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
357 TETRADECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
275 HEXADECYL DIMETHYLBENZYLAMMONIUM CHLORIDE
358 OCTADECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
406 DODECYL DIMETHYL META-TRIFLUOROMETHYLBENZYL AMMONIUM CHLORIDE CF3C6H4CH2/N/CH3/2/C12H25
359 OCTYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
360 DECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
361 DODECYL 4-NITROBENZYL DIMETHYL AMMONIUM CHLORIDE
362 TETRADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
363 HEXADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
364 OCTADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
365 DODECYL 2-CHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
367 DODECYL 4-CHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
366 DODECYL 2-4-DICHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
369 DODECYL 3-4-DICHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
371 DODECYL 3-4-DIMETHOXYBENZYL DIMETHYLAMMONIUM CHLORIDE
370 DODECYL 3-4-METHYLENEDIOXYBENZYL DIMETHYLAMMONIUM CHLORIDE
368 DODECYL 2-HYDROXY-5-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
451 PARA DI-ISOBUTYLPHENOXYETHOXYETHYL DIMETHYLBENZYL AMMONIUM CHLORIDE/HYAMINE 1622/
404 DODECYL DIMETHYL 2-PHENYLETHYLAMMONIUM CHLORIDE C6H5CH2CH2/N/CH3/2/C12H25
407 DODECYL DIMETHYL 3-PHENYLPROPYLAMMONIUM CHLORIDE C6H5CH2CH2/N/CH3/2/C12H25

RRR-CH3

400 DODECYL METHYL DIETHYLAMMONIUM CHLORIDE
405 DODECYL METHYLETHYLBENZYLAMMONIUM CHLORIDE
267 HEXADECYL DI-/2-HYDROXYETHYL/METHYL AMMONIUMCHLORIDE

R-R3

662 OCTADECYL TRIETHYLAMMONIUM BROMATE
401 DODECYL TRIETHYLAMMONIUM CHLORIDE
663 OCTADECYL TRIPROPYLAMMONIUM BROMATE
292 HEXADECYL TRIPROPYLAMMONIUM BROMIDE
291 TETRADECYL TRIPROPYLAMMONIUM BROMIDE
664 OCTADECYL TRIBUTYLAMMONIUM BROMATE
666 HEXADECYL TRIBUTYLAMMONIUM BROMATE
665 OCTADECYL TRIAMYLAMMONIUM BROMATE
268 HEXADECYL TRI-/2-HYDROXYETHYL/ AMMONIUM CHLORIDE
500 DODECYL TRI/2-HYDROXYETHYL/AMMONIUM CHLORIDE

RRR-O

293 DODECYL DIMETHYL AMINE OXIDE HYDROBROMIDE
22 DIMETHYL DODECYL AMINE OXIDE HYDROCHLORIDE

BETAINE

135 OCTYL C BETAINE HYDROCHLORIDE
124 DODECYL N BETAINE HYDROCHLORIDE
125 TETRADECYL N BETAINE HYDROCHLORIDE

AMINO ACID

633 N-DODECYL BETA-ALANINE HYDROCHLORIDE
137 *ALPHA DIMETHYLAMINO CAPRIC ACID HYDROCHLORIDE*

PYRIDINIUM

100 OCTYL PYRIDINIUM BROMIDE
458 DECYL PYRIDINIUM IODIDE
101 UNDECYL PYRIDINIUM BROMIDE
278 DODECYL PYRIDINIUM CHLORIDE
290 *DODECYL PYRIDINIUM BROMIDE*
376 DODECYL PYRIDINIUM IODIDE
102 TETRADECYL PYRIDINIUM BROMIDE
479 TETRADECYL PYRIDINIUM IODIDE
304 CATOL 607 (N-/LAURYL-COLAMINO-FORMYL-METHYL/ - PYRIDINIUM CHLORIDE)

C-16

274 HEXADECYL PYRIDINIUM CHLORIDE
427 HEXADECYL PYRIDINIUM BROMIDE
480 HEXADECYL PYRIDINIUM IODIDE
660 HEXADECYL PYRIDINIUM IODATE
693 N-CETYL 2-METHYL PYRIDINIUM CHLORIDE
696 N-CETYL 2-METHYL PYRIDINIUM IODIDE
694 N-CETYL 3-*METHYL PYRIDINIUM CHLORIDE*
697 N-CETYL-3-METHYL PYRIDINIUM IODIDE
695 N-CETYL 4-METHYL PYRIDINIUM CHLORIDE
698 N-CETYL-4-METHYL PYRIDINIUM IODIDE
560 EMULSOL 607L (N-(2-KETO-2-(2,-LAUROYLOXETHY LAMINO)) ETHYL) PYRIDINIUM CHLORIDE
655 OCTADECYL PYRIDINIUM CHLORIDE
657 OCTADECYL PYRIDINIUM BROMIDE
481 OCTADECYL PYRIDINIUM IODIDE
656 OCTADECYL PYRIDINIUM NITRATE
661 OCTADECYL PYRIDINIUM IODATE

QUINOLINIUM

717 DODECYLQUINOLINIUM BROMIDE

TROPYLIUM

528 DODECYL TROPYLIUM PERCHLORATE
460 DODECYL TROPYLIUM MONOPHOSPHATE
491 DODECYL TROPYLIUM BISULFATE

2C. NONIONICS BY HEAD GROUP

CARBOXYLIC ACID

43 BUTYRIC ACID
700 HEXANOIC ACID
529 OCTANOIC ACID
530 DECANOIC ACID
531 DODECANOIC ACID
532 TETRADECANOIC ACID
533 HEXADECANOIC ACID
534 OCTADECANOIC ACID

AMINE

706 PERFLURO PROPYLAMINE
708 HEXYLAMINE

N-BETAINE

118 OCTYL N BETAINE
119 DECYL N BETAINE
120 UNDECYL N BETAINE
121 DODECYL N BETAINE
592 DODECYL N-DIETHYL N-BETAINE
122 TETRADECYL N BETAINE
123 HEXADECYL N BETAINE

C-BETAINE

132 OCTYL C BETAINE

PART 2. *Surfactants grouped by charge and by head group and arranged by number of carbon atoms in longest hydrophobic tail*—Continued

133 DECYL C BETAINE
134 DODECYL C BETAINE

AMINE OXIDE
714 HEXYL DIMETHYL AMINE OXIDE
715 HEPTYL DIMETHYL AMINE OXIDE
251 OCTYL DIMETHYL AMINE OXIDE
254 NONYL DIMETHYL AMINE OXIDE
252 DECYL DIMETHYL AMINE OXIDE
713 UNDECYL DIMETHYL AMINE OXIDE
21 DIMETHYL DODECYL AMINE OXIDE
253 TETRADECYL DIMETHYL AMINE OXIDE
348 NN-DIMETHYL 1-1-DIHYDROPENTADECAFLUORO OCTYL AMINE N-OXIDE /C7F15CH2N/CH3/2O/

PHOSPHINE OXIDE
710 OCTYL DIMETHYL PHOSPHINE OXIDE
711 DECYL DIMETHYL PHOSPHINE OXIDE
712 DODECYL DIMETHYL PHOSPHINE OXIDE

-ONIO -ATE
590 DODECYL DIMETHYLAMMONIOPROPANE CARBOXYLATE
587 DECYL DIMETHYLAMMONIOPROPANE SULFONATE
588 DODECYL DIMETHYLAMMONIOPROPANE SULFONATE
594 DODECYL DIPROPYL AMMONIOPROPANE SULFONATE
589 HEXADECYLDIMETHYLAMMONIOPROPANE SULFONATE
595 DODECYL DIMETHYL AMMONIOPROPANE SULFATE
593 DIMETHYL DODECYLAMMONIOPROPANE HYDROXY SULFONATE
591 DODECYL DIMETHYLPHOSPHONIOPROPANE SULFONATE

SULFINYL OL
684 HEXYL SULFINYLETHANOL
688 OCTYL SULFINYLETHANOL
692 DECYL SULFINYLETHANOL
685 HEXYL SULFINYLPROPANOL
689 OCTYL SULFINYLPROPANOL
686 HEXYL SULFINYLBUTANOL
690 OCTYL SULFINYLBUTANOL
687 HEXYL SULFINYLPENTANOL

SUGAR ALKYLATE
648 ALPHA-D-GLUCOSYL OCTANE
649 ALPHA-D-GLUCOSYL DODECANE
645 PARA/BETA-D-GLUCOSYL/ETHYLBENZENE
646 PARA/BETA-D-GLUCOSYL/TROPYL BENZENE
647 PARA/BETA-D-GLUCOSYL/BUTYLBENZENE
650 PARA/BETA-D-XYLOSYL/BUTYL BENZENE

SUGAR ESTER
495 SUCROSE MONOLAURATE
497 SUCROSE MONOMYRISTATE
498 SUCROSE MONOPALMITATE
499 SUCROSE DI-PALMITATE
496 SUCROSE MONOSTEARATE

POLYOL ETHER
424 OCTYL ALPHA-GLYCERYL ETHER
18 OCTYL BETA D GLUCOSIDE
19 DECYL BETA D GLUCOSIDE
20 DODECYL BETA D GLUCOSIDE

OTHER
457 1-4-HEXANEDIOL
703 4-HEXYL RESORCINOL
691 OCTYL METHYL SULFOXIDE

METHYL-OXYETHYLENE ESTER
583 METHYL /OXYETHYLENE/ 6.0 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
580 METHYL /OXYETHYLENE/ 7.0 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
586 METHYL /OXYETHYLENE/ 7.6 OCTANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
584 METHYL /OXYETHYLENE/ 8.4 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
581 METHYL /OXYETHYLENE/ 10.3 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
585 METHYL /OXYETHYLENE/ 11.2 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
578 METHYL /OXYETHYLENE/ 11.9 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
579 METHYL /OXYETHYLENE/ 12.5 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
582 METHYL /OXYETHYLENE/ 16.0 DECANOATE NATURAL DISTRIBUTION OF HEAD GROUPS

METHYL-OXYETHYLENE ETHER
201 DECYL /OXYETHYLENE/8 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
202 DECYL /OXYETHYLENE/11 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
204 DECYL /OXYETHYLENE/12 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
205 DODECYL /OXYETHYLENE/12 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS

OXYETHYLENE SORBITAN
440 /OXYETHYLENE/4 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
441 /OXYETHYLENE/8 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
442 /OXYETHYLENE/10 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
443 /OXYETHYLENE/20 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
444 /OXYETHYLENE/25 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS

OXYETHYLENE DIOL ESTER
276 NONAETHYLENE GLYCOL MONODODECANOATE NATURAL DISTRIBUTION OF HEAD GROUPS

OXYETHYLENE ALCOHOL

OE 1
461 BUTYL/OXYETHYLENE/1 ALCOHOL--BUTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP
423 OCTYL/OXYETHYLENE/1 ALCOHOL--OCTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP
207 P-T-OCTYL BENZENE /OXYETHYLENE/1 ALCOHOL HOMOGENOUS HEAD GROUP
217 P-T-OCTYL BENZENE /OXYETHYLENE/1 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 2
208 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL HOMOGENOUS HEAD GROUP
218 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 3
103 HEXYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP
104 OCTYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP
209 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL HOMOGENOUS HEAD GROUP
219 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
107 DECYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP

OE 3
380 HEXYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP
515 ISO-OCTYL/OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
210 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL HOMOGENOUS HEAD GROUP
220 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
516 NONYL/OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
379 DECYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP
519 DECYL/OXO-PROCESS/ /OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
325 DODECYL/OXYETHYLENE/4 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS

OE 5
381 HEXYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP
211 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL HOMOGENOUS HEAD GROUP
221 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
153 NONYL BENZENE /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
378 DECYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP

143 DECYL /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
377 DODECYL/OXYETHYLENE/ 5 ALCOHOL HOMOGENEOUS HEAD GROUP
158 DODECYL BENZENE /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
312 TRIDECYL/OXYETHYLENE/5 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
148 TRIDECYL /OXYETHYLENE/ 5.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

OE 6

393 BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
394 1-METHYL PROPYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
674 DIISOBUTYL BENZENE/OXYETHYLENE/6 ALCOHOL (DBBRANCHED CHAIN, NATURAL OE DISTRIBUTION
294 HEXYL/OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP
395 2-ETHYL BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
105 OCTYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
396 2-PROPYL PENTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
212 P-T-OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP
222 P-T-OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
108 DECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
397 2-BUTYL HEXYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
110 DODECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
468 DODECYL/OXYETHYLENE/6.2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
518 TRIMETHYLNONYL/OXYETHYLENE/6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
289 TETRADECYL/OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP
282 HEXADECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP

OE 7

213 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL HOMOGENOUS HEAD GROUP
223 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
488 DODECYL/OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP
115 DODECYL /OXYETHYLENE/7 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS
469 DODECYL/OXYETHYLENE/7.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
330 HEXADECYL/OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP

OE 8

335 OCTYL BENZENE/OXYETHYLENE/8.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
214 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL HOMOGENOUS HEAD GROUP
224 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
520 UNDECYL/OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
163 DODECYL /OXYETHYLENE/ 8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
431 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/8.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

OE 9

106 OCTYL /OXYETHYLENE/ 9 ALCOHOL HOMOGENOUS HEAD GROUP
215 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL HOMOGENOUS HEAD GROUP
225 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
206 TRITON X-100(P-T-OCTYL BENZENE/OXYETHYLENE/9NATURAL DISTRIBUTION OF HEAD GROUPS
336 NONYL BENZENE/OXYETHYLENE/9.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
154 NONYL BENZENE /OXYETHYLENE/ 9.8 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
109 DECYL /OXYETHYLENE/ 9 ALCOHOL HOMOGENOUS HEAD GROUP
398 2-BUTYL HEXYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP
489 DODECYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP
465 TRIDECYL/OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
466 TRIDECYL/SECONDARY/ /OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
313 TRIDECYL/OXYETHYLENE/9.5 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
331 HEXADECYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP

OE 10

675 OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
216 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL HOMOGENOUS HEAD GROUP
317 T-OCTYL BENZENE/OXYETHYLENE/10 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
226 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
320 NONYL BENZENE/OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
167 NONYL BENZENE /OXYETHYLENE/ 10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
337 NONYL BENZENE/OXYETHYLENE/10.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
144 DECYL /OXYETHYLENE/ 10.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
517 DECYL/OXO-PROCESS/ /OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
310 DODECYL/OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
470 DODECYL/OXYETHYLENE/10.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
159 DODECYL BENZENE /OXYETHYLENE/ 10.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
521 TRIDECYL/OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
149 TRIDECYL /OXYETHYLENE/ 10.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
432 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
435 OCTADECYL/OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 11

463 NONYL BENZENE/OXYETHYLENE/11 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
523 DECYL BENZENE PARA/OXYETHYLENE/11.0 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
522 DECYL BENZENE ORTHO/OXYETHYLENE/11.2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 12

490 DODECYL/OXYETHYLENE/12 ALCOHOL HOMOGENEOUS HEAD GROUP
164 DODECYL /OXYETHYLENE/ 12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
467 TRIDECYL/SECONDARY/ /OXYETHYLENE/12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
332 HEXADECYL/OXYETHYLENE/12 ALCOHOL HOMOGENEOUS HEAD GROUP
437 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 14

145 DECYL /OXYETHYLENE/ 14.9 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
326 DODECYL/OXYETHYLENE/14 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
314 TRIDECYL/OXYETHYLENE/14 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
524 HEXADECYL/OXYETHYLENE/14 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
328 OCTADECYL/OXYETHYLENE/14 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS

OE 15

321 NONYL BENZENE/OXYETHYLENE/15 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
464 NONYL BENZENE/OXYETHYLENE/15 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
168 NONYL BENZENE /OXYETHYLENE/ 15 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
155 NONYL BENZENE /OXYETHYLENE/ 15.4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
471 DODECYL/OXYETHYLENE/15.8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
160 DODECYL BENZENE /OXYETHYLENE/ 15.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
150 TRIDECYL /OXYETHYLENE/ 15.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

PART 2. *Surfactants grouped by charge and by head group and arranged by number of carbon atoms in longest hydrophobic tail*—Continued

433 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/15 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
333 HEXADECYL/OXYETHYLENE/15 ALCOHOL HOMOGENEOUS HEAD GROUP

OE 16

227 P-T-OCTYL BENZENE /OXYETHYLENE/16 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
716 DODECYL /OXYETHYLENE/16 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
438 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/16 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 18

165 DODECYL /OXYETHYLENE/ 18 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
535 HEXADECYL/OXYETHYLENE/18 ALCOHOL

OE 20

318 T-OCTYL BENZENE/OXYETHYLENE/20 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
322 NONYL BENZENE/OXYETHYLENE/20 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
156 NONYL BENZENE /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
146 DECYL /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
472 DODECYL/OXYETHYLENE/20.4 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
161 DODECYL BENZENE /OXYETHYLENE/ 20.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
315 TRIDECYL/OXYETHYLENE/20 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
151 TRIDECYL /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
436 OCTADECYL/OXYETHYLENE/20 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
439 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/20 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUP

OE 21-25

334 HEXADECYL/OXYETHYLENE/21 ALCOHOL HOMOGENEOUS HEAD GROUP
434 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/22 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
327 DODECYL/OXYETHYLENE/23 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
166 DODECYL /OXYETHYLENE/ 23 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 26-30

473 DODECYL/OXYETHYLENE/27.1 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
170 DODECYL /OXYETHYLENE/ 28 ALCOHOL REDUCED DISTRIBUTION OF HEAD GROUPS
147 DECYL /OXYETHYLENE/ 29.4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
319 T-OCTYL BENZENE/OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
323 NONYL BENZENE/OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
721 NONYL BENZENE /OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN DIALYSED
169 NONYL BENZENE /OXYETHYLENE/ 30 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
157 NONYL BENZENE /OXYETHYLENE/ 30.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
116 DODECYL /OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS
162 DODECYL BENZENE /OXYETHYLENE/ 30.6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
316 TRIDECYL/OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
152 TRIDECYL /OXYETHYLENE/ 30.6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
117 HEXADECYL /OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS

OE 31-40

474 DODECYL/OXYETHYLENE/38.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
228 P-T-OCTYL BENZENE /OXYETHYLENE/40 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 41+

324 NONYL BENZENE/OXYETHYLENE/50 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
475 DODECYL/OXYETHYLENE/67.3 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
338 NONYL BENZENE/OXYETHYLENE/100 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
329 OCTADECYL/OXYETHYLENE/100 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS

PART 3. *Grouped by structure of hydrophobic part and arranged by number of carbon atoms in longest hydrophobic tail and by charge.*

3A. ALKANES

N-ALKANES

C-3

699 SODIUM BUTYRATE
43 BUTYRIC ACID
707 PERFLUORO PROPYLAMINE HYDROCHLORIDE
706 PERFLURO PROPYLAMINE

C-4

484 SODIUM PENTANOATE/VALERATE/
257 SODIUM DI-N-BUTYL SULFOSUCCINATE
461 BUTYL/OXYETHYLENE/1 ALCOHOL--BUTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP
393 BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP

C-5

700 HEXANOIC ACID
485 SODIUM HEXANOATE/CAPROATE/
188 POTASSIUM HEXANOATE
250 SODIUM DI-N-AMYL SULFOSUCCINATE
343 SODIUM PENTANE SULFONATE
700 HEXANOIC ACID

C-6

486 SODIUM HEPTANOATE
296 POTASSIUM HEPTANOATE
344 SODIUM HEXANE SULFONATE
339 MAGNESIUM HEXANE SULFONATE
259 SODIUM DI-N-HEXYL SULFOSUCCINATE
704 POTASSIUM 4-HEXYL RESORCINOLATE
708 HEXYLAMINE
709 HEXYLAMINE HYDROCHLORIDE
640 HEXYL TRIMETHYLAMMONIUM HEXANE SULFATE
644 HEXYL TRIMETHYLAMMONIUM HEXANE SULFONATE
641 HEXYL TRIMETHYLAMMONIUM OCTANE SULFATE
708 HEXYLAMINE
390 HEXYLAMMONIUM DODECYL SULFATE
714 HEXYL DIMETHYL AMINE OXIDE
684 HEXYL SULFINYLETHANOL
685 HEXYL SULFINYLPROPANOL
686 HEXYL SULFINYLBUTANOL
687 HEXYL SULFINYLPENTANOL
457 1-4-HEXANEDIOL
103 HEXYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP
380 HEXYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP
381 HEXYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP
294 HEXYL/OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP
703 4-HEXYL RESORCINOL

C-7

529 OCTANOIC ACID
476 SODIUM OCTANOATE
44 POTASSIUM OCTANOATE
284 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-OCTANOATE
303 DI-ISOPROPYLAMONIUM CAPRYLATE
529 OCTANOIC ACID
715 HEPTYL DIMETHYL AMINE OXIDE
586 METHYL /OXYETHYLENE/ 7.6 OCTANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS

C-8

487 SODIUM NONANOATE
350 POTASSIUM NONANOATE
420 POTASSIUM 1-1-2-OCTANE TRICARBOXYLATE
6 SODIUM ALPHA SULFOPELARGONIC ACID
25 SODIUM ETHYL ALPHA SULFOPELARGONATE
26 SODIUM AMYL ALPHA SULFOPELARGONATE
27 SODIUM HEXYL ALPHA SULFOPELARGONATE
28 SODIUM HEPTYL ALPHA SULFOPELARGONATE
7 SODIUM OCTYL ALPHA SULFOPELARGONATE
31 SODIUM 2 OCTYL ALPHA SULFOPELARGONATE
32 SODIUM 2 ETHYLHEXYL ALPHA SULFOPELARGONATE
35 SODIUM H/CF2CF2/3CH2 ALPHA SULFOPELARGONATE
611 ALPHAPHOSPHONO PELARGONIC ACID
605 SODIUM AMYL ALPHAPHOSPHONO PELARGONATE
2 SODIUM OCTYL 1 SULFATE
66 SODIUM OCTYL 2 SULFATE
347 OCTYL TRIMETHYLAMMOMIUM OCTYL SULFATE
643 DODECYL TRIMETHYLAMMONIUM OCTANE SULFATE
181 SODIUM OCTYL 1-SULFONATE
340 MAGNESIUM OCTANE SULFONATE
287 OCTYL TRIMETHYLAMMONIUM OCTANE SULFONATE
260 SODIUM DI-N-OCTYL SULFOSUCCINATE
392 OCTYLAMMONIUM CHLORIDE
391 OCTYLAMMONIUM DODECYL SULFATE
93 OCTYL TRIMETHYL AMMONIUM BROMIDE
347 OCTYL TRIMETHYLAMMOMIUM OCTYL SULFATE
642 OCTYL TRIMETHYLAMMONIUM DECANE SULFATE
385 OCTYL TRIMETHYLAMMONIUM DODECYL SULFATE
287 OCTYL TRIMETHYLAMMONIUM OCTANE SULFONATE
353 OCTYL TRIMETHYLAMMONIUM DECANE SULFONATE
483 DIOCTYL DIMETHYL AMMONIUM CHLORIDE
135 OCTYL C BETAINE HYDROCHLORIDE
132 OCTYL C BETAINE
118 OCTYL N BETAINE
251 OCTYL DIMETHYL AMINE OXIDE
710 OCTYL DIMETHYL PHOSPHINE OXIDE
688 OCTYL SULFINYLETHANOL
689 OCTYL SULFINYLPROPANOL
690 OCTYL SULFINYLBUTANOL
648 ALPHA-D-GLUCOSYL OCTANE
424 OCTYL ALPHA-GLYCERYL ETHER
18 OCTYL BETA D GLUCOSIDE
691 OCTYL METHYL SULFOXIDE
423 OCTYL/OXYETHYLENE/1 ALCOHOL--OCTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP
104 OCTYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP
105 OCTYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
106 OCTYL /OXYETHYLENE/ 9 ALCOHOL HOMOGENOUS HEAD GROUP

C-9

530 DECANOIC ACID
299 SODIUM DECANOATE
90 POTASSIUM DECANOATE
668 DIPOTASSIUM OCTYL MALONATE
29 SODIUM NONYL ALPHA SULFOPELARGONATE
606 SODIUM AMYL ALPHAPHOSPHONO CAPRATE
612 ALPHAPHOSPHONO DECANOIC ACID
616 MONOSODIUM ALPHAPHOSPHONO DECANOATE
136 SOLIUM ALPHA DIMETHYL AMINO CAPRATE
295 SODIUM NONYL 1-SULFATE
536 NONYL SULFONIC ACID
94 NONYL TRIMETHYL AMMONIUM BROMIDE
137 ALPHA DIMETHYLAMINO CAPRIC ACID HYDROCHLORIDE
530 DECANOIC ACID
254 NONYL DIMETHYL AMINE OXIDE
580 METHYL /OXYETHYLENE/ 7.0 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
581 METHYL /OXYETHYLENE/ 10.3 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
578 METHYL /OXYETHYLENE/ 11.9 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
582 METHYL /OXYETHYLENE/ 16.0 DECANOATE NATURAL DISTRIBUTION OF HEAD GROUPS

C-10

297 POTASSIUM UNDECANOATE
425 POTASSIUM 1-1-2-DECANE TRICARBOXYLATE
30 SODIUM DECYL ALPHA SULFOPELARGONATE
33 SODIUM /OXO/ DECYL ALPHA SULFOPELARGONATE
3 SODIUM DECYL 1 SULFATE
15 SODIUM DECYL 2 SULFATE
346 DECYL TRIMETHYLAMMONIUM DECYL SULFATE
642 OCTYL TRIMETHYLAMMONIUM DECANE SULFATE
182 SODIUM DECYL 1-SULFONATE
341 MAGNESIUM DECANE SULFONATE
353 OCTYL TRIMETHYLAMMONIUM DECANE SULFONATE

PART 3. *Grouped by structure of hydrophobic part and arranged by number of carbon atoms in longest hydrophobic tail and by charge*—Continued

288 DECYL TRIMETHYLAMMONIUM DECANESULFONATE
37 DECYLAMMONIUM CHLORIDE
411 DECYLAMMONIUM ACETATE
203 DECYL TRIMETHYL AMMONIUM CHLORIDE
95 DECYL TRIMETHYL AMMONIUM BROMIDE
306 DECYL TRIMETHYLAMMONIUM SULFATE
346 DECYL TRIMETHYLAMMONIUM DECYL SULFATE
288 DECYL TRIMETHYLAMMONIUM DECANESULFONATE
280 DECYL TRIMETHYL AMMONIUM DODECYL SULFATE
133 DECYL C BETAINE
119 DECYL N BETAINE
252 DECYL DIMETHYL AMINE OXIDE
711 DECYL DIMETHYL PHOSPHINE OXIDE
587 DECYL DIMETHYLAMMONIOPROPANE SULFONATE
692 DECYL SULFINYLETHANOL
19 DECYL BETA D GLUCOSIDE
201 DECYL /OXYETHYLENE/8 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
202 DECYL /OXYETHYLENE/11 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
204 DECYL /OXYETHYLENE/12 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
107 DECYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP
379 DECYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP
378 DECYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP
108 DECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
109 DECYL /OXYETHYLENE/ 9 ALCOHOL HOMOGENOUS HEAD GROUP

C-11

531 DODECANOIC ACID
273 SODIUM DODECANOATE
91 POTASSIUM DODECANOATE
627 CESIUM DODECANOATE
277 BENZYL TRIMETHYL AMMONIUM DODECANOATE
527 SODIUM UNDECANE-3-CARBOXYLATE
669 DIPOTASSIUM DECYL MALONATE
602 ALPHA SULFO LAURIC ACID
235 SODIUM ALPHA SULFO LAURIC ACID
603 SODIUM PROPYL ALPHA SULFO LAURATE
613 ALPHAPHOSPHONO DODECANOIC ACID
617 MONOSODIUM ALPHAPHOSPHONO DODECANOATE
620 DISODIUM ALPHAPHOSPHONO DODECANOATE
607 SODIUM ISOPROPYL ALPHAPHOSPHONO LAURATE
311 SODIUM UNDECYL 1-SULFATE
72 SODIUM UNDECYL 3 SULFATE
80 SODIUM UNDECYL 6 SULFATE
639 SODIUM UNDECYL THIOSULFATE
537 UNDECYL SULFONIC ACID
418 SODIUM UNDECYL SULFONATE
96 UNDECYL TRIMETHYL AMMONIUM BROMIDE
531 DODECANOIC ACID
120 UNDECYL N BETAINE
713 UNDECYL DIMETHYL AMINE OXIDE
495 SUCROSE MONOLAURATE
276 NONAETHYLENE GLYCOL MONODODECANOATE NATURAL DISTRIBUTION OF HEAD GROUPS
583 METHYL /OXYETHYLENE/ 6.0 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
584 METHYL /OXYETHYLENE/ 8.4 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
585 METHYL /OXYETHYLENE/ 11.2 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
579 METHYL /OXYETHYLENE/ 12.5 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
440 /OXYETHYLENE/4 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
441 /OXYETHYLENE/8 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
442 /OXYETHYLENE/10 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
443 /OXYETHYLENE/20 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
444 /OXYETHYLENE/25 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
520 UNDECYL/OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
550 LAURIC ACID DIETHANOLAMINE CONDENSATE

C-12

ANIONIC

351 POTASSIUM TRIDECANOATE
421 POTASSIUM 1-1-2-DODECANE TRICARBOXYLATE
34 SODIUM DODECYL ALPHA SULFOPELARGONATE
632 POTASSIUM N-DODECYL BETA-ALANINATE
705 *DODECYL SULFURIC ACID*
1 SODIUM DODECYL 1 SULFATE
67 SODIUM DODECYL 2 SULFATE
634 POTASSIUM DODECYL SULFATE
111 LITHIUM DODECYL 1 SULFATE
23 SILVER DODECYL 1 SULFATE
568 MAGNESIUM DODECYL SULFATE
24 CALCIUM DODECYL 1 SULFATE
569 STRONTIUM DODECYL SULFATE
571 MANGANESE DODECYL SULFATE
572 COBALTOUS DODECYL SULFATE
575 NICKEL DODECYL SULFATE
573 CUPRIC DODECYL SULFATE
570 LEAD DODECYL SULFATE
574 *ZINC DODECYL SULFATE*
386 AMMONIUM DODECYL SULFATE
387 METHYLAMMONIUM DODECYL SULFATE
388 ETHYLAMMONIUM DODECYL SULFATE
389 BUTYLAMMONIUM DODECYL SULFATE
409 TRIETHANOLAMMONIUM DODECYL SULFATE
112 TETRAMETHYL AMMONIUM DODECYL 1 SULFATE
382 ETHYL TRIMETHYLAMMONIUM DODECYL SULFATE
383 BUTYL TRIMETHYLAMMONIUM DODECYL SULFATE
718 TETRAETHYLAMMONIUM DODECYL SULFATE
719 TETRABUTYLAMMONIUM DODECYL SULFATE
720 1-6-DITRIMETHYLAMMONIUM-HEXANE/DODECYL SULFATE/2
410 MORPHOLINIUM DODECYL SULFATE
391 OCTYLAMMONIUM DODECYL SULFATE
385 OCTYL TRIMETHYLAMMONIUM DODECYL SULFATE
280 DECYL TRIMETHYL AMMONIUM DODECYL SULFATE
281 DODECYL TRIMETHYLAMMONIUM DODECYL SULFATE
636 SODIUM DODECYL THIOSULFATE
462 SODIUM MONOLAURIN SULFATE
541 SODIUM DODECYL MONO-OXYETHYLENE SULFATE
542 SODIUM DODECYL DIOXYETHYLENE SULFATE
113 SODIUM DODECYL TRI-OXYETHYLENE SULFATE
543 SODIUM DODECYL TETRA-OXYETHYLENE SULFATE
114 SODIUM DODECYL /OXYETHYLENE/17.5 SULFATE
597 SODIUM DODECYL MONO-OXYPROPYL SULFATE
200 DODECYL SULFONIC ACID
179 SODIUM DODECANE 1-SULFONATE
175 SODIUM DODECANE 2-SULFONATE
40 POTASSIUM DODECYL 1 SULFONATE
635 LITHIUM DODECYL SULFONATE
342 MAGNESIUM DODECANE SULFONATE

CATIONIC

38 DODECYL AMMONIUM CHLORIDE
628 DODECYLAMMONIUM BROMIDE
482 DODECYL AMMONIUM NITRATE
412 DODECYLAMMONIUM ACETATE
449 DODECYLMETHYL AMMONIUM CHLORIDE
450 DODECYLDIMETHYL AMMONIUM CHLORIDE
41 DODECYL TRIMETHYL AMMONIUM CHLORIDE
307 DODECYL TRIMETHYLAMMONIUM SULFATE
97 DODECYL TRIMETHYL AMMONIUM BROMIDE
126 DODECYL TRIMETHYLAMMONIUM IODIDE
130 DODECYL *TRIMETHYL AMMONIUM FLUORIDE*
131 DODECYL TRIMETHYLAMMONIUM NITRATE
129 DODECYL TRIMETHYL AMMONIUM BROMATE
127 DODECYL TRIMETHYL AMMONIUM IODATE
128 DODECYL TRIMETHYL AMMONIUM FORMATE
643 DODECYL TRIMETHYLAMMONIUM OCTANE SULFATE
281 DODECYL TRIMETHYLAMMONIUM DODECYL SULFATE
384 HEXYL TRIMETHYLAMMONIUM DODECYL SULFATE
399 DODECYL DIMETHYL ETHYLAMMONIUM CHLORIDE
345 DIDODECYL DIMETHYLAMMONIUM CHLORIDE
400 DODECYL METHYL DIETHYLAMMONIUM CHLORIDE
401 DODECYL TRIETHYLAMMONIUM CHLORIDE
500 DODECYL TRI/2-HYDROXYETHYL/AMMONIUM CHLORIDE
22 DIMETHYL DODECYL AMINE OXIDE HYDROCHLORIDE
293 DODECYL DIMETHYL AMINE OXIDE HYDROBROMIDE
124 DODECYL N BETAINE HYDROCHLORIDE
633 N-DODECYL BETA-ALANINE HYDROCHLORIDE

NONIONIC

121 DODECYL N BETAINE
592 DODECYL N-DIETHYL N-BETAINE
134 DODECYL C BETAINE
21 DIMETHYL DODECYL AMINE OXIDE
712 DODECYL DIMETHYL PHOSPHINE OXIDE
590 DODECYL DIMETHYLAMMONIOPROPANE CARBOXYLATE
588 DODECYL DIMETHYLAMMONIOPROPANE SULFONATE

PART 3. *Grouped by structure of hydrophobic part and arranged by number of carbon atoms in longest hydrophobic tail and by charge*—Continued

591 DODECYL DIMETHYLPHOSPHONIOPROPANE SULFONATE
595 DODECYL DIMETHYL AMMONIOPROPANE SULFATE
594 DODECYL DIPROPYL AMMONIOPROPANE SULFONATE
593 DIMETHYL DODECYLAMMONIOPROPANE HYDROXY SULFONATE
20 DODECYL BETA D GLUCOSIDE
649 ALPHA-D-GLUCOSYL DODECANE
205 DODECYL /OXYETHYLENE/12 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
325 DODECYL/OXYETHYLENE/4 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
377 DODECYL/OXYETHYLENE/ 5 ALCOHOL HOMOGENEOUS HEAD GROUP
110 DODECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
468 DODECYL/OXYETHYLENE/6.2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
115 DODECYL /OXYETHYLENE/7 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS
488 DODECYL/OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP
469 DODECYL/OXYETHYLENE/7.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
163 DODECYL /OXYETHYLENE/ 8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
489 DODECYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP
310 DODECYL/OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
470 DODECYL/OXYETHYLENE/10.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
490 DODECYL/OXYETHYLENE/12 ALCOHOL HOMOGENEOUS HEAD GROUP
164 DODECYL /OXYETHYLENE/ 12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
326 DODECYL/OXYETHYLENE/14 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
471 DODECYL/OXYETHYLENE/15.8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
716 DODECYL /OXYETHYLENE/16 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
165 DODECYL /OXYETHYLENE/ 18 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
472 DODECYL/OXYETHYLENE/20.4 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
327 DODECYL/OXYETHYLENE/23 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
166 DODECYL /OXYETHYLENE/ 23 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
473 DODECYL/OXYETHYLENE/27.1 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
170 DODECYL /OXYETHYLENE/ 28 ALCOHOL REDUCED DISTRIBUTION OF HEAD GROUPS
116 DODECYL /OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS
474 DODECYL/OXYETHYLENE/38.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
475 DODECYL/OXYETHYLENE/67.3 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

C-13

532 TETRADECANOIC ACID
298 SODIUM TETRADECANOATE
92 POTASSIUM TETRADECANOATE
670 DIPOTASSIUM DODECYL MALONATE
189 ALPHA SULFOMYRISTIC ACID
236 SODIUM ALPHA SULFO MYRISTIC ACID
604 SODIUM METHYL ALPHA SULFO MYRISTATE
618 MONOSODIUM ALPHAPHOSPHONO TETRADECANOATE
608 SODIUM METHYL ALPHAPHOSPHONO MYRISTATE
235 DISODIUM ALPHA SULFO MYRISTATE
614 ALPHAPHOSPHONO TETRADECANOIC ACID
621 DISODIUM ALPHAPHOSPHONO TETRADECANOATE
624 TRISODIUM ALPHAPHOSPHONO TETRADECANOATE
68 SODIUM TRIDECYL 2 SULFATE
83 SODIUM TRIDECYL 7 SULFATE
242 TRIDECANE 1-SULFONIC ACID
229 SODIUM TRIDECANE 1-SULFONATE
402 TRIDECYL TRIMETHYLAMMONIUM CHLORIDE
532 TETRADECANOIC ACID
497 SUCROSE MONOMYRISTATE
465 TRIDECYL/OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
466 TRIDECYL/SECONDARY/ /OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

C-14

426 POTASSIUM 1-1-2-TETRADECANE TRICARBOXYLATE
4 SODIUM TETRADECYL 1 SULFATE
16 SODIUM TETRADECYL 2 SULFATE
73 SODIUM TETRADECYL 3 SULFATE
17 SODIUM TETRADECYL 4 SULFATE
77 SODIUM TETRADECYL 5 SULFATE
525 SODIUM TETRADECYL 6-SULFATE
84 SODIUM TETRADECYL 7 SULFATE
637 LITHIUM TETRADECYL SULFATE
576 CUPRIC TETRADECYL SULFATE
544 SODIUM TETRADECYL MONO-OXYETHYLENE SULFATE
545 SODIUM TETRADECYL DI-OXYETHYLENE SULFATE
546 SODIUM TETRADECYL TRI-OXYETHYLENE SULFATE
598 SODIUM TETRADECYL MONO-OXYPROPYL SULFATE
599 SODIUM TETRADECYL DI-OXYPROPYL SULFATE
243 TETRADECANE 1-SULFONIC ACID
183 SODIUM TETRADECYL 1-SULFONATE
176 SODIUM TETRADECANE 2-SULFONATE
39 TETRADECYL AMMONIUM CHLORIDE
413 TETRADECYLAMMONIUM ACETATE
42 TETRADECYL TRIMETHYL AMMONIUM CHLORIDE
98 TETRADECYL TRIMETHYL AMMONIUM BROMIDE
308 TETRADECYL TRIMETHYLAMMONIUM SULFATE
291 TETRADECYL TRIPROPYLAMMONIUM BROMIDE
125 TETRADECYL N BETAINE HYDROCHLORIDE
122 TETRADECYL N BETAINE
253 TETRADECYL DIMETHYL AMINE OXIDE
289 TETRADECYL/OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP

C-15

533 HEXADECANOIC ACID
300 SODIUM HEXADECANOATE
185 POTASSIUM HEXADECANOATE
671 DIPOTASSIUM TETRADECYL MALONATE
190 ALPHA SULFOPALMITIC ACID
237 SODIUM ALPHA SULFO PALMITIC ACID
36 SODIUM METHYL ALPHA SULFOPALMITATE
192 SODIUM ETHYL ALPHA SULFOPALMITATE
193 SODIUM PROPYL ALPHA SULFOPALMITATE
234 DISODIUM ALPHA SULFO PALMITATE
197 DISODIUM 2 SULFOETHYL ALPHA SULFOPALMITATE
615 ALPHAPHOSPHONO HEXADECANOIC ACID
619 MONOSODIUM ALPHAPHOSPHONO HEXADECANOATE
609 SODIUM ISOPROPYL ALPHAPHOSPHONO PALMITATE
622 DISODIUM ALPHAPHOSPHONO HEXADECANOATE
625 TRISODIUM ALPHAPHOSPHONO HEXADECANOATE
69 SODIUM PENTADECYL 2 SULFATE
74 SODIUM PENTADECYL 3 SULFATE
78 SODIUM PENTADECYL 5 SULFATE
85 SODIUM PENTADECYL 8 SULFATE
244 PENTADECANE 1-SULFONIC ACID
230 SODIUM PENTADECANE 1-SULFONATE
533 HEXADECANOIC ACID
498 SUCROSE MONOPALMITATE

C-16

422 POTASSIUM 1-1-2-HEXADECANE TRICARBOXYLATE
5 SODIUM HEXADECYL 1 SULFATE
75 SODIUM HEXADECYL 4 SULFATE
81 SODIUM HEXADECYL 6 SULFATE
86 SODIUM HEXADECYL 8 SULFATE
638 LITHIUM HEXADECYL SULFATE
577 CUPRIC HEXADECYL SULFATE
60 TRIETHANOL AMMONIUM HEXADECYL SULFATE
52 SODIUM HEXADECYL MONO OXYETHYLENE SULFATE
53 SODIUM HEXADECYL DI OXYETHYLENE SULFATE
54 SODIUM HEXADECYL TRI OXYETHYLENE SULFATE
55 SODIUM HEXADECYL TETRA OXYETHYLENE SULFATE
600 SODIUM HEXADECYL MONO-OXYPROPYL SULFATE
245 HEXADECANE 1-SULFONIC ACID
184 SODIUM HEXADECYL 1-SULFONATE
177 SODIUM HEXADECANE 2-SULFONATE
408 POTASSIUM HEXADECANE 1-SULFONATE
186 HEXADECYL AMMONIUM CHLORIDE
414 HEXADECYLAMMONIUM ACETATE
265 HEXADECYL TRIMETHYL AMMONIUM CHLORIDE
99 HEXADECYL TRIMETHYLAMMONIUM BROMIDE
309 HEXADECYL TRIMETHYLAMMONIUM SULFATE
478 HEXADECYL DIMETHYLETHYLAMMONIUM BROMIDE
266 HEXADECYL DIMETHYL 2-HYDROXYETHYL AMMONIUM CHLORIDE
269 HEXADECYLDIMETHYL2,3-DIHYDROXYPROPYLAMMONIUM CHLORIDE
267 HEXADECYL DI-/2-HYDROXYETHYL/METHYL AMMONIUM CHLORIDE
268 HEXADECYL TRI-/2-HYDROXYETHYL/ AMMONIUM CHLORIDE
292 HEXADECYL TRIPROPYLAMMONIUM BROMIDE
666 HEXADECYL TRIBUTYLAMMONIUM BROMATE
123 HEXADECYL N BETAINE
589 HEXADECYLDIMETHYLAMMONIOPROPANE SULFONATE
499 SUCROSE DI-PALMITATE

PART 3. *Grouped by structure of hydrophobic part and arranged by number of carbon atoms in longest hydrophobic tail and by charge* – Continued

282 HEXADECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
330 HEXADECYL/OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP
331 HEXADECYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP
332 HEXADECYL/OXYETHYLENE/12 ALCOHOL HOMOGENEOUS HEAD GROUP
333 HEXADECYL/OXYETHYLENE/15 ALCOHOL HOMOGENEOUS HEAD GROUP
535 HEXADECYL/OXYETHYLENE/18 ALCOHOL
334 HEXADECYL/OXYETHYLENE/21 ALCOHOL HOMOGENEOUS HEAD GROUP
117 HEXADECYL /OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS

C-17

534 OCTADECANOIC ACID
448 SODIUM OCTADECANOATE /STEARATE/
256 POTASSIUM STEARATE
672 DIPOTASSIUM HEXADECYL MALONATE
191 ALPHA SULFOSTEARIC ACID
9 SODIUM ALPHA SULFOSTEARIC ACID
194 SODIUM METHYL ALPHA SULFOSTEARATE
195 SODIUM ETHYL ALPHA SULFOSTEARATE
196 SODIUM PROPYL ALPHA SULFOSTEARATE
199 SODIUM ISOPROPYL ALPHA SULFOSTEARATE
10 DISODIUM ALPHA SULFOSTEARATE
198 DISODIUM 2 SULFOETHYL ALPHA SULFOSTEARATE
553 XYLYL SULFOSTEARIC ACID
610 SODIUM METHYL ALPHAPHOSPHONO STEARATE
623 DISODIUM ALPHAPHOSPHONO OCTADECANOATE
626 TRISODIUM ALPHAPHOSPHONO OCTADECANOATE
70 SODIUM HEPTADECYL 2 SULFATE
87 SODIUM HEPTADECYL 9 SULFATE
246 HEPTADECANE 1-SULFONIC ACID
231 SODIUM HEPTADECANE 1-SULFONATE
534 OCTADECANOIC ACID
496 SUCROSE MONOSTEARATE

C-18

673 DIPOTASSIUM OCTADECYL MALONATE
64 SODIUM OCTADECYL 1 SULFATE
71 SODIUM OCTADECYL 2 SULFATE
76 SODIUM OCTADECYL 4 SULFATE
82 SODIUM OCTADECYL 6 SULFATE
65 TRIETHANOLAMMONIUM OCTADECYL 1 SULFATE
56 SODIUM OCTADECYL MONO OXYETHYLENE SULFATE
57 SODIUM OCTADECYL DI OXYETHYLENE SULFATE
58 SODIUM OCTADECYL TRI OXYETHYLENE SULFATE
59 SODIUM OCTADECYL TETRA OXYETHYLENE SULFATE
601 SODIUM OCTADECYL MONO-OXYPROPYL SULFATE
232 OCTADECANE 1-SULFONIC ACID
349 SODIUM OCTADECANE 1-SULFONATE
178 SODIUM OCTADECANE 2-SULFONATE
419 SODIUM ALPHA-HEPTYL UNDECYL SULFONATE
187 OCTADECYL AMMONIUM CHLORIDE
415 OCTADECYLAMMONIUM ACETATE
270 OCTADECYL TRIMETHYLAMMONIUM CHLORIDE
477 OCTADECYL TRIMETHYLAMMONIUM BROMIDE
654 OCTADECYL TRIMETHYLAMMONIUM NITRATE
658 OCTADECYL TRIMETHYLAMMONIUM BROMATE
659 OCTADECYL TRIMETHYLAMMONIUM FORMATE
667 OCTADECYL TRIMETHYLAMMONIUM OXALATE
662 OCTADECYL TRIETHYLAMMONIUM BROMATE
663 OCTADECYL TRIPROPYLAMMONIUM BROMATE
664 OCTADECYL TRIBUTYLAMMONIUM BROMATE
665 OCTADECYL TRIAMYLAMMONIUM BROMATE
435 OCTADECYL/OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
328 OCTADECYL/OXYETHYLENE/14 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
436 OCTADECYL/OXYETHYLENE/20 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
329 OCTADECYL/OXYETHYLENE/100 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS

C-19

79 SODIUM NONADECYL 5 SULFATE
88 SODIUM 1 NONYL DECYL SULFATE

C-20

683 SODIUM EICOSYLBENZENE SULFONATE

C-29

89 SODIUM 1 TETRADECYL PENTADECYL SULFATE

ISO-ALKANES

261 SODIUM DI-ISOBUTYL SULFOSUCCINATE
394 1-METHYL PROPYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
352 SODIUM DI-1-METHYLISOAMYL SULFOSUCCINATE
395 2-ETHYL BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
262 SODIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE
286 AMMONIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE
396 2-PROPYL PENTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
515 ISO-OCTYL/OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
516 NONYL/OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
397 2-BUTYL HEXYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
398 2-BUTYL HEXYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP
517 DECYL/OXO-PROCESS/ /OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
519 DECYL/OXO-PROCESS/ /OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
143 DECYL /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
144 DECYL /OXYETHYLENE/ 10.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
145 DECYL /OXYETHYLENE/ 14.9 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
146 DECYL /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
147 DECYL /OXYETHYLENE/ 29.4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
518 TRIMETHYLNONYL/OXYETHYLENE/6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

C-13

312 TRIDECYL/OXYETHYLENE/5 ALCOHOL BRANCHED CHAIN. REDUCED OE DISTRIBUTION
148 TRIDECYL /OXYETHYLENE/ 5.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
313 TRIDECYL/OXYETHYLENE/9.5 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
521 TRIDECYL/OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
149 TRIDECYL /OXYETHYLENE/ 10.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
314 TRIDECYL/OXYETHYLENE/14 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
150 TRIDECYL /OXYETHYLENE/ 15.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
315 TRIDECYL/OXYETHYLENE/20 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
151 TRIDECYL /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
316 TRIDECYL/OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
152 TRIDECYL /OXYETHYLENE/ 30.6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
431 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/8.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
432 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
433 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/15 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
434 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/22 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
526 SODIUM 2-DI-N-HEXYL ETHYL SULFATE
524 HEXADECYL/OXYETHYLENE/14 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

3B. ALKYL ARYL

ALKYL AND ARYL

354 HEXYL BENZYL DIMETHYLAMMONIUM CHLORIDE
356 DECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
403 DODECYL DIMETHYLPHENYLAMMONIUM CHLORIDE
279 DODECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
404 DODECYL DIMETHYL 2-PHENYLETHYLAMMONIUM CHLORIDE C6H5CH2CH2/N/CH3/2/C12H25
407 DODECYL DIMETHYL 3-PHENYLPROPYLAMMONIUM CHLORIDE C6H5CH2CH2/N/CH3/2/C12H25
405 DODECYL METHYLETHYLBENZYLAMMONIUM CHLORIDE
357 TETRADECYL BENZYL DIMETHYLAMMONIUM CHLORIDE

PART 3. *Grouped by structure of hydrophobic part and arranged by number of carbon atoms in longest hydrophobic tail and by charge* — Continued

275 HEXADECYL DIMETHYLBENZYLAMMONIUM CHLORIDE
358 OCTADECYL BENZYL DIMETHYLAMMONIUM CHLORIDE

1-N-ALKYL ARYL

645 PARA/BETA-D-GLUCOSYL/ETHYLBENZENE
646 PARA/BETA-D-GLUCOSYL/PROPYL BENZENE
445 SODIUM PARA-BIS-/N-BUTYL/ BENZENE SULFONATE
681 SODIUM DIBUTYL BENZENE SULFONATE
647 PARA/BETA-D-GLUCOSYL/BUTYLBENZENE
650 PARA/BETA-D-XYLOSYL/BUTYL BENZENE
501 SODIUM HEXYL BENZENE SULFONATE
446 SODIUM PARA-BIS-/N-HEXYL/ BENZENE SULFONATE
502 SODIUM HEPTYL BENZENE SULFONATE
49 SODIUM P OCTYL BENZENE SULFONATE
503 SODIUM OCTYL BENZENE SULFONATE
447 SODIUM PARA-BIS-/N-OCTYL/ BENZENE SULFONATE
675 OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
493 SODIUM P-NONYL BENZENE SULFONATE
504 SODIUM NONYL BENZENE SULFONATE
463 NONYL BENZENE/OXYETHYLENE/11 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
464 NONYL BENZENE/OXYETHYLENE/15 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
50 SODIUM P DECYL BENZENE SULFONATE
505 SODIUM DECYL BENZENE SULFONATE
522 DECYL BENZENE ORTHO/OXYETHYLENE/11.2 ALCOHOLNATURAL DISTRIBUTION OF HEAD GROUPS
523 DECYL BENZENE PARA/OXYETHYLENE/11.0 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
51 SODIUM P DODECYL BENZENE SULFONATE
506 SODIUM DODECYL BENZENE SULFONATE
507 SODIUM TETRADECYL BENZENE SULFONATE
596 TETRAHYDROANACARDOL AMMONIUM MONOSULFONATE
508 SODIUM HEXADECYL BENZENE SULFONATE
552 TOLYL SULFOSTEARIC ACID
509 SODIUM OCTADECYL BENZENE SULFONATE

OTHER N-ALKYL ARYL

172 SODIUM 2-N-OCTYL BENZENE SULFONATE
173 SODIUM 2-N-DECYL BENZENE SULFONATE
45 SODIUM P 1 METHYL DECYL BENZENE SULFONATE
171 SODIUM 2-N-DODECYL BENZENE SULFONATE
301 SODIUM 3-N-DODECYL BENZENE SULFONATE
302 SODIUM 4-N-DODECYL BENZENE SULFONATE
514 SODIUM 6-N-DODECYL BENZENE SULFONATE
46 SODIUM P 1 METHYL DODECYL BENZENE SULFONATE
174 SODIUM 2-N-TETRADECYL BENZENE SULFONATE
47 SODIUM P 1 METHYL TETRADECYL BENZENE SULFONATE
48 SODIUM P 1 METHYL HEXADECYL BENZENE SULFONATE
551 PHENYL SULFOSTEARIC ACID

ISO-ALKYL ARYL - KNOWN BRANCHING

674 DIISOBUTYL BENZENE/OXYETHYLENE/6 ALCOHOL (DB) BRANCHED CHAIN, NATURAL OE DISTRIBUTION
510 SODIUM 2-ETHYL-HEXYL BENZENE SULFONATE
676 SODIUM 1,1,3,3-TETRAMETHYL BUTYL BENZENE SULFONATE
677 SODIUM DI-/1,1,3,3-TETRAMETHYL BUTYL/BENZENESULFONATE

P-TERTIARY OCTYL BENZENE

207 P-T-OCTYL BENZENE /OXYETHYLENE/1 ALCOHOL HOMOGENOUS HEAD GROUP
217 P-T-OCTYL BENZENE /OXYETHYLENE/1 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
208 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL HOMOGENOUS HEAD GROUP
218 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
209 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL HOMOGENOUS HEAD GROUP
219 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
210 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL HOMOGENOUS HEAD GROUP
220 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
211 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL HOMOGENOUS HEAD GROUP
221 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
212 P-T-OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP
222 P-T-OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
213 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL HOMOGENOUS HEAD GROUP
223 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
214 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL HOMOGENOUS HEAD GROUP
224 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
215 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL HOMOGENOUS HEAD GROUP
225 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
206 TRITON X-100(P-T-OCTYL BENZENE/OXYETHYLENE/9NATURAL DISTRIBUTION OF HEAD GROUPS
216 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL HOMOGENOUS HEAD GROUP
317 T-OCTYL BENZENE/OXYETHYLENE/10 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
226 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
227 P-T-OCTYL BENZENE /OXYETHYLENE/16 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
318 T-OCTYL BENZENE/OXYETHYLENE/20 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
319 T-OCTYL BENZENE/OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
228 P-T-OCTYL BENZENE /OXYETHYLENE/40 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
272 TRI-ISOPROPYL BENZENE SULFONIC ACID
271 SODIUM TRI-ISO-PROPYL BENZENE SULFONATE
678 SODIUM 1,1-DIMETHYLNONYL BENZENE SULFONATE
511 SODIUM 2-PROPYL-HEPTYL BENZENE SULFONATE
679 SODIUM 3-BUTYL HEPTYL BENZENE SULFONATE
680 SODIUM 2-PROPYL-4-METHYL-OCTYL BENZENE SULFONATE
492 SODIUM TETRAPROPYLENE/1-3-5-7-TETRAMETHYL-OCTYL/BENZENE SULFONATE
512 SODIUM 2-BUTYL-OCTYL BENZENE SULFONATE
513 SODIUM 2-AMYL-NONYL BENZENE SULFONATE

ISO-ALKYL ARYL - BRANCHING UNSPECIFIED

335 OCTYL BENZENE/OXYETHYLENE/8.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
138 SODIUM NONYL BENZENE SULFONATE BRANCHED HYDROCARBON

ISO-NONYL BENZENE

153 NONYL BENZENE /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
154 NONYL BENZENE /OXYETHYLENE/ 9.8 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
336 NONYL BENZENE/OXYETHYLENE/9.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
320 NONYL BENZENE/OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
167 NONYL BENZENE /OXYETHYLENE/ 10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
337 NONYL BENZENE/OXYETHYLENE/10.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
168 NONYL BENZENE /OXYETHYLENE/ 15 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
321 NONYL BENZENE/OXYETHYLENE/15 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
155 NONYL BENZENE /OXYETHYLENE/ 15.4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
322 NONYL BENZENE/OXYETHYLENE/20 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
156 NONYL BENZENE /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
323 NONYL BENZENE/OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
721 NONYL BENZENE /OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN DIALYSED
169 NONYL BENZENE /OXYETHYLENE/ 30 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
157 NONYL BENZENE /OXYETHYLENE/ 30.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
324 NONYL BENZENE/OXYETHYLENE/50 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
338 NONYL BENZENE/OXYETHYLENE/100 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
140 SODIUM DECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
139 SODIUM DODECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN

PART 3. *Grouped by structure of hydrophobic part and arranged by number of carbon atoms in longest hydrophobic tail and by charge*—Continued

158 DODECYL BENZENE /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
159 DODECYL BENZENE /OXYETHYLENE/ 10.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
160 DODECYL BENZENE /OXYETHYLENE/ 15.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
161 DODECYL BENZENE /OXYETHYLENE/ 20.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
162 DODECYL BENZENE /OXYETHYLENE/ 30.6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
141 SODIUM TRIDECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
142 SODIUM PENTADECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN

ALKYL–ARYL – PRESENCE OF BRANCHING UNCERTAIN

682 SODIUM DIBUTYL NAPHTHALENE SULFONATE /NEKAL/
11 SODIUM ALPHA SULFO PHENYL STEARIC ACID
8 DISODIUM ALPHA SULFOPHENYLSTEARATE

3C. UNSATURATED AND SUBSTITUTED

UNSATURATED HYDROCARBON

562 SODIUM DODECENYL SULFATE
263 SODIUM OLEATE /CIS-9-OCTADECENOATE/
305 POTASSIUM OLEATE/ CIS-9-OCTADECENOATE/
285 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-OLEATE
61 SODIUM OLEYL/CIS 9 OCTADECENOYL/ SULFATE
547 SODIUM OLEYL MONO-OXYETHYLENE SULFATE
548 SODIUM OLEYL DI-OXYETHYLENE SULFATE
549 SODIUM OLEYL TRI-OXYETHYLENE SULFATE
437 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
438 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/16 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
439 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/20 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUP
264 SODIUM ELAIDATE /TRANS-9-OCTADECENOATE/
629 POTASSIUM ELAIDATE/TRANS-9-OCTADECENOATE/
283 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-ELAIDATE
62 SODIUM ELAIDYL/TRANS 9 OCTADECENOYL/SULFATE

OXYGEN

451 PARA DI-ISOBUTYLPHENOXYETHOXYETHYL DIMETHYLBENZYL AMMONIUM CHLORIDE/HYAMINE 1622/
238 SODIUM DODECANE 1-HYDROXY 2-SULFONATE
247 DODECANE 1-HYDROXY 2-SULFONIC ACID
370 DODECYL 3-4-METHYLENEDIOXYBENZYL DIMETHYLAMMONIUM CHLORIDE
371 DODECYL 3-4-DIMETHOXYBENZYL DIMETHYLAMMONIUM CHLORIDE
248 TETRADECANE 1-HYDROXY 2-SULFONIC ACID
239 SODIUM TETRADECANE 1-HYDROXY 2-SULFONATE
249 HEXADECANE 1-HYDROXY 2-SULFONIC ACID
240 SODIUM HEXADECANE 1-HYDROXY 2-SULFONATE
255 POTASSIUM 9,10 DIHYDROXY STEARATE
630 POTASSIUM RICINOLEATE/12 HYDROXY OLEATE/
631 POTASSIUM RICINELAIDATE/12 HYDROXY ELAIDATE/
14 DISODIUM 9,10 DIHYDROXY ALPHA SULFOSTEARATE
250 OCTADECANE 1-HYDROXY 2-SULFONIC ACID
241 SODIUM OCTADECANE 1-HYDROXY 2-SULFONATE

NITROBENZYL

359 OCTYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
360 DECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
361 DODECYL 4-NITROBENZYL DIMETHYL AMMONIUM CHLORIDE
368 DODECYL 2-HYDROXY-5-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
362 TETRADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
363 HEXADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
364 OCTADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE

HALOGEN

428 PERFLUORO ACETIC ACID
429 PERFLUORO PROPIONIC ACID
430 PERFLUORO BUTYRIC ACID
706 PERFLUORO PROPYLAMINE
416 PERFLUORO HEXANOIC ACID
701 POTASSIUM PERFLUROHEXANOATE
417 PERFLUORO OCTANOIC ACID
702 POTASSIUM PERFLUORODECANOATE
452 3-4-DICHLOROPERFLUORO BUTYRIC/KEL-F/ACID
453 3-5-6-TRICHLOROPERFLUORO HEXANOIC/KEL-F/ACID
454 3-5-7-8-TETRACHLOROPERFLUORO OCTANOIC/KEL-F/ACID
374 DODECAFLUOROHEPTANOIC ACID H/CF2/6COOH
355 AMMONIUM DODECAFLUOROHEPTANOATE H/CF2/6COONH4
375 HEXADECAFLUORONONANOIC ACID H/CF2/8COOH
372 AMMONIUM HEXADECAFLUORONONANOATE H/CF2/8 COO NH4
373 AMMONIUM EICOSAFLUOROUNDECANOATE H/CF2/10 COO NH4
348 NN-DIMETHYL 1-1-DIHYDROPENTADECAFLUORO OCTYL AMINE N-OXIDE /C7F15CH2N/CH3/2O/
365 DODECYL 2-CHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
367 DODECYL 4-CHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
366 DODECYL 2-4-DICHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
369 DODECYL 3-4-DICHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
406 DODECYL DIMETHYL META-TRIFLUOROMETHYLBENZYL AMMONIUM CHLORIDE CF3C6H4CH2/N/CH3/2/C12H25
12 SODIUM 9,10 DICHLORO ALPHA SULFOSTEARIC ACID
13 DISODIUM 9,10 DICHLORO ALPHA SULFOSTEARATE
63 SODIUM 9 10 DICHLORO OCTADECYL SULFATE

3D. HETEROCYCLIC

100 OCTYL PYRIDINIUM BROMIDE
458 DECYL PYRIDINIUM IODIDE
101 UNDECYL PYRIDINIUM BROMIDE
278 DODECYL PYRIDINIUM CHLORIDE
290 DODECYL PYRIDINIUM BROMIDE
376 DODECYL PYRIDINIUM IODIDE
102 TETRADECYL PYRIDINIUM BROMIDE
479 TETRADECYL PYRIDINIUM IODIDE
274 HEXADECYL PYRIDINIUM CHLORIDE
427 HEXADECYL PYRIDINIUM BROMIDE
480 HEXADECYL PYRIDINIUM IODIDE
660 HEXADECYL PYRIDINIUM IODATE
655 OCTADECYL PYRIDINIUM CHLORIDE
657 OCTADECYL PYRIDINIUM BROMIDE
481 OCTADECYL PYRIDINIUM IODIDE
656 OCTADECYL PYRIDINIUM NITRATE
661 OCTADECYL PYRIDINIUM IODATE
693 N-CETYL 2-METHYL PYRIDINIUM CHLORIDE
696 N-CETYL 2-METHYL PYRIDINIUM IODIDE
694 N-CETYL 3-METHYL PYRIDINIUM CHLORIDE
697 N-CETYL-3-METHYL PYRIDINIUM IODIDE
695 N-CETYL 4-METHYL PYRIDINIUM CHLORIDE
698 N-CETYL-4-METHYL PYRIDINIUM IODIDE
304 CATOL 607 (N-/LAURYL-COLAMINO-FORMYL-METHYL/ - PYRIDINIUM CHLORIDE)
560 EMULSOL 607L (N-(2-KETO-2-(2,-LAUROYLOXYETHYL AMINO)) ETHYL) PYRIDINIUM CHLORIDE
717 DODECYLQUINOLINIUM BROMIDE
491 DODECYL TROPYLIUM BISULFATE
528 DODECYL TROPYLIUM PERCHLORATE
460 DODECYL TROPYLIUM MONOPHOSPHATE

Structural Indexes of Compounds with Keys to Compound Numbers—Continued

PART 4. *Polyoxyethylenes grouped by distribution of heads arranged by number of carbon atoms in longest hydrophobic tail and by heads.*

4A. POLYOXYETHYLENES – HOMOGENEOUS HEAD GROUPS

OE 1

461 BUTYL/OXYETHYLENE/1 ALCOHOL--BUTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP
423 OCTYL/OXYETHYLENE/1 ALCOHOL--OCTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP
207 P-T-OCTYL BENZENE /OXYETHYLENE/1 ALCOHOL HOMOGENOUS HEAD GROUP
208 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL HOMOGENOUS HEAD GROUP
103 HEXYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP
104 OCTYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP
209 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL HOMOGENOUS HEAD GROUP
107 DECYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENOUS HEAD GROUP

OE 4

380 HEXYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP
210 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL HOMOGENOUS HEAD GROUP
379 DECYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP
381 HEXYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP
211 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL HOMOGENOUS HEAD GROUP
378 DECYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP
377 DODECYL/OXYETHYLENE/ 5 ALCOHOL HOMOGENEOUS HEAD GROUP

OE 6

393 BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
394 1-METHYL PROPYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
294 HEXYL/OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP
395 2-ETHYL BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
105 OCTYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
396 2-PROPYL PENTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
212 P-T-OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP
108 DECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
397 2-BUTYL HEXYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP
110 DODECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP
289 TETRADECYL/OXYETHYLENE/6 ALCOHOL HOMOGENOUS HEAD GROUP
282 HEXADECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENOUS HEAD GROUP

OE 7

213 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL HOMOGENOUS HEAD GROUP
488 DODECYL/OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP
330 HEXADECYL/OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP
214 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL HOMOGENOUS HEAD GROUP
106 OCTYL /OXYETHYLENE/ 9 ALCOHOL HOMOGENOUS HEAD GROUP
215 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL HOMOGENOUS HEAD GROUP
109 DECYL /OXYETHYLENE/ 9 ALCOHOL HOMOGENOUS HEAD GROUP
398 2-BUTYL HEXYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP
331 HEXADECYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP
489 DODECYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP

OE 10

216 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL HOMOGENOUS HEAD GROUP
490 DODECYL/OXYETHYLENE/12 ALCOHOL HOMOGENEOUS HEAD GROUP
332 HEXADECYL/OXYETHYLENE/12 ALCOHOL HOMOGENEOUS HEAD GROUP
333 HEXADECYL/OXYETHYLENE/15 ALCOHOL HOMOGENEOUS HEAD GROUP
334 HEXADECYL/OXYETHYLENE/21 ALCOHOL HOMOGENEOUS HEAD GROUP

4B. POLYOXYETHYLENES – REDUCED POLYDISPERSITY OF HEAD GROUPS

OE 4

325 DODECYL/OXYETHYLENE/4 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
312 TRIDECYL/OXYETHYLENE/5 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
583 METHYL /OXYETHYLENE/ 6.0 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
586 METHYL /OXYETHYLENE/ 7.6 OCTANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
580 METHYL /OXYETHYLENE/ 7.0 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
115 DODECYL /OXYETHYLENE/7 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS
201 DECYL /OXYETHYLENE/8 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
584 METHYL /OXYETHYLENE/ 8.4 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
313 TRIDECYL/OXYETHYLENE/9.5 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION

OE 10

317 T-OCTYL BENZENE/OXYETHYLENE/10 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
320 NONYL BENZENE/OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
581 METHYL /OXYETHYLENE/ 10.3 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
202 DECYL /OXYETHYLENE/11 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
585 METHYL /OXYETHYLENE/ 11.2 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
578 METHYL /OXYETHYLENE/ 11.9 DECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS
204 DECYL /OXYETHYLENE/12 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
205 DODECYL /OXYETHYLENE/12 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS
579 METHYL /OXYETHYLENE/ 12.5 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS

OE 14

326 DODECYL/OXYETHYLENE/14 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
328 OCTADECYL/OXYETHYLENE/14 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
314 TRIDECYL/OXYETHYLENE/14 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
321 NONYL BENZENE/OXYETHYLENE/15 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
716 DODECYL /OXYETHYLENE/16 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
535 HEXADECYL/OXYETHYLENE/18 ALCOHOL

OE 20

318 T-OCTYL BENZENE/OXYETHYLENE/20 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
322 NONYL BENZENE/OXYETHYLENE/20 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
327 DODECYL/OXYETHYLENE/23 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
315 TRIDECYL/OXYETHYLENE/20 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
319 T-OCTYL BENZENE/OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS
323 NONYL BENZENE/OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
721 NONYL BENZENE /OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN DIALYSED
116 DODECYL /OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS

PART 4. *Polyoxyethylenes grouped by distribution of heads arranged by number of carbon atoms in longest hydrophobic tail and by heads* — Continued

316 TRIDECYL/OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
117 HEXADECYL /OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS
324 NONYL BENZENE/OXYETHYLENE/50 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION
329 OCTADECYL/OXYETHYLENE/100 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS

4C. POLYOXYETHYLENES – NATURAL DISTRIBUTION OF HEAD GROUPS

OE 1

217 P-T-OCTYL BENZENE /OXYETHYLENE/1 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
218 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
219 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
220 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
515 ISO-OCTYL/OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
516 NONYL/OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
519 DECYL/OXO-PROCESS/ /OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
440 /OXYETHYLENE/4 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS

OE 5

221 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
153 NONYL BENZENE /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
143 DECYL /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
158 DODECYL BENZENE /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
148 TRIDECYL /OXYETHYLENE/ 5.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
674 DIISOBUTYL BENZENE/OXYETHYLENE/6 ALCOHOL (DB) BRANCHED CHAIN, NATURAL OE DISTRIBUTION
222 P-T-OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
468 DODECYL/OXYETHYLENE/6.2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
518 TRIMETHYLNONYL/OXYETHYLENE/6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
223 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
469 DODECYL/OXYETHYLENE/7.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 8

335 OCTYL BENZENE/OXYETHYLENE/8.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
224 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
520 UNDECYL/OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
441 /OXYETHYLENE/8 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
163 DODECYL /OXYETHYLENE/ 8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
431 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/8.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
206 TRITON X-100(P-T-OCTYL BENZENE/OXYETHYLENE/9NATURAL DISTRIBUTION OF HEAD GROUPS
225 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
336 NONYL BENZENE/OXYETHYLENE/9.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
154 NONYL BENZENE /OXYETHYLENE/ 9.8 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
276 NONAETHYLENE GLYCOL MONODODECANOATE NATURAL DISTRIBUTION OF HEAD GROUPS
465 TRIDECYL/OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
466 TRIDECYL/SECONDARY/ /OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 10

675 OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
226 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
167 NONYL BENZENE /OXYETHYLENE/ 10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
337 NONYL BENZENE/OXYETHYLENE/10.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
144 DECYL /OXYETHYLENE/ 10.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
517 DECYL/OXO-PROCESS/ /OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
442 /OXYETHYLENE/10 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
310 DODECYL/OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
159 DODECYL BENZENE /OXYETHYLENE/ 10.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
470 DODECYL/OXYETHYLENE/10.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
521 TRIDECYL/OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
432 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
149 TRIDECYL /OXYETHYLENE/ 10.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
435 OCTADECYL/OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 11

463 NONYL BENZENE/OXYETHYLENE/11 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
523 DECYL BENZENE PARA/OXYETHYLENE/11.0 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
522 DECYL BENZENE ORTHO/OXYETHYLENE/11.2 ALCOHOLNATURAL DISTRIBUTION OF HEAD GROUPS
164 DODECYL /OXYETHYLENE/ 12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
467 TRIDECYL/SECONDARY/ /OXYETHYLENE/12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
437 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 14

145 DECYL /OXYETHYLENE/ 14.9 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
524 HEXADECYL/OXYETHYLENE/14 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
464 NONYL BENZENE/OXYETHYLENE/15 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
168 NONYL BENZENE /OXYETHYLENE/ 15 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
155 NONYL BENZENE /OXYETHYLENE/ 15.4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
160 DODECYL BENZENE /OXYETHYLENE/ 15.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
150 TRIDECYL /OXYETHYLENE/ 15.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
433 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/15 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

OE 16

227 P-T-OCTYL BENZENE /OXYETHYLENE/16 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
582 METHYL /OXYETHYLENE/ 16.0 DECANOATE NATURAL DISTRIBUTION OF HEAD GROUPS
471 DODECYL/OXYETHYLENE/15.8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
438 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/16 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
165 DODECYL /OXYETHYLENE/ 18 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE 20

151 TRIDECYL /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
436 OCTADECYL/OXYETHYLENE/20 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
439 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/20 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUP
156 NONYL BENZENE /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

PART 4. *Polyoxyethylenes grouped by distribution of heads arranged by number of carbon atoms in longest hydrophobic tail and by heads*—Continued

146 DECYL /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
443 /OXYETHYLENE/20 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
472 DODECYL/OXYETHYLENE/20.4 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
161 DODECYL BENZENE /OXYETHYLENE/ 20.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
434 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/22 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
166 DODECYL /OXYETHYLENE/ 23 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS

OE-25

444 /OXYETHYLENE/25 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS
473 DODECYL/OXYETHYLENE/27.1 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
170 DODECYL /OXYETHYLENE/ 28 ALCOHOL REDUCED DISTRIBUTION OF HEAD GROUPS
147 DECYL /OXYETHYLENE/ 29.4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
169 NONYL BENZENE /OXYETHYLENE/ 30 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
157 NONYL BENZENE /OXYETHYLENE/ 30.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
162 DODECYL BENZENE /OXYETHYLENE/ 30.6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
152 TRIDECYL /OXYETHYLENE/ 30.6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION
474 DODECYL/OXYETHYLENE/38.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
228 P-T-OCTYL BENZENE /OXYETHYLENE/40 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
475 DODECYL/OXYETHYLENE/67.3 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS
338 NONYL BENZENE/OXYETHYLENE/100 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

PART 5. *Ionics grouped by counterion and arranged by number of carbon atoms in longest hydrophobic tail and by heads.*

5A. ANIONICS BY COUNTERION

HYDROGEN

428 PERFLUORO ACETIC ACID
429 PERFLUORO PROPIONIC ACID
43 BUTYRIC ACID
452 3-4-DICHLOROPERFLUORO BUTYRIC/KEL-F/ACID
430 PERFLUORO BUTYRIC ACID
700 HEXANOIC ACID
453 3-5-6-TRICHLOROPERFLUORO HEXANOIC/KEL-F/ACID
416 PERFLUORO HEXANOIC ACID
374 DODECAFLUOROHEPTANOIC ACID H/CF2/6COOH
529 OCTANOIC ACID
417 PERFLUORO OCTANOIC ACID
375 HEXADECAFLUORONONANOIC ACID H/CF2/8COOH
611 ALPHAPHOSPHONO PELARGONIC ACID
530 DECANOIC ACID
455 PERFLUORO DECANOIC ACID
612 ALPHAPHOSPHONO DECANOIC ACID
536 NONYL SULFONIC ACID
272 TRI-ISOPROPYL BENZENE SULFONIC ACID
531 DODECANOIC ACID
602 ALPHA SULFO LAURIC ACID
613 ALPHAPHOSPHONO DODECANOIC ACID
537 UNDECYL SULFONIC ACID

C-12

705 DODECYL SULFURIC ACID
200 DODECYL SULFONIC ACID
247 DODECANE 1-HYDROXY 2-SULFONIC ACID
532 TETRADECANOIC ACID
614 ALPHAPHOSPHONO TETRADECANOIC ACID
189 ALPHA SULFOMYRISTIC ACID
242 TRIDECANE 1-SULFONIC ACID
243 TETRADECANE 1-SULFONIC ACID
248 TETRADECANE 1-HYDROXY 2-SULFONIC ACID
533 HEXADECANOIC ACID
190 ALPHA SULFOPALMITIC ACID
615 ALPHAPHOSPHONO HEXADECANOIC ACID
244 PENTADECANE 1-SULFONIC ACID
245 HEXADECANE 1-SULFONIC ACID
249 HEXADECANE 1-HYDROXY 2-SULFONIC ACID
534 OCTADECANOIC ACID
191 ALPHA SULFOSTEARIC ACID
551 PHENYL SULFOSTEARIC ACID
552 TOLYL SULFOSTEARIC ACID
553 XYLYL SULFOSTEARIC ACID
246 HEPTADECANE 1-SULFONIC ACID
232 OCTADECANE 1-SULFONIC ACID
250 OCTADECANE 1-HYDROXY 2-SULFONIC ACID

SODIUM

699 SODIUM BUTYRATE
681 SODIUM DIBUTYL BENZENE SULFONATE
682 SODIUM DIBUTYL NAPHTHALENE SULFONATE /NEKAL/
484 SODIUM PENTANOATE/VALERATE/
257 SODIUM DI-N-BUTYL SULFOSUCCINATE
261 SODIUM DI-ISOBUTYL SULFOSUCCINATE
445 SODIUM PARA-BIS-/N-BUTYL/ BENZENE SULFONATE
556 ARESKAP 100 /MONOBUTYL PHENYLPHENOL SODIUM MONOSULFONATE/
557 ARESKET 300 /MONOBUTYL BIPHENYL SODIUM MONOSULFONATE/
558 ARESKLENE 400 /DIBUTYL PHENYLPHENOL DISODIUMDISULFONATE
485 SODIUM HEXANOATE/CAPROATE/
258 SODIUM DI-N-AMYL SULFOSUCCINATE
343 SODIUM PENTANE SULFONATE

C-6

486 SODIUM HEPTANOATE
259 SODIUM DI-N-HEXYL SULFOSUCCINATE
352 SODIUM DI-1-METHYLISOAMYL SULFOSUCCINATE
344 SODIUM HEXANE SULFONATE
501 SODIUM HEXYL BENZENE SULFONATE
446 SODIUM PARA-BIS-/N-HEXYL/ BENZENE SULFONATE
476 SODIUM OCTANOATE
502 SODIUM HEPTYL BENZENE SULFONATE

C-8

487 SODIUM NONANOATE
260 SODIUM DI-N-OCTYL SULFOSUCCINATE
262 SODIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE
6 SODIUM ALPHA SULFOPELARGONIC ACID
25 SODIUM ETHYL ALPHA SULFOPELARGONATE
26 SODIUM AMYL ALPHA SULFOPELARGONATE
27 SODIUM HEXYL ALPHA SULFOPELARGONATE
28 SODIUM HEPTYL ALPHA SULFOPELARGONATE
7 SODIUM OCTYL ALPHA SULFOPELARGONATE
31 SODIUM 2 OCTYL ALPHA SULFOPELARGONATE
32 SODIUM 2 ETHYLHEXYL ALPHA SULFOPELARGONATE
35 SODIUM H/CF2CF2/3CH2 ALPHA SULFOPELARGONATE
605 SODIUM AMYL ALPHAPHOSPHONO PELARGONATE
181 SODIUM OCTYL 1-SULFONATE
2 SODIUM OCTYL 1 SULFATE
66 SODIUM OCTYL 2 SULFATE
49 SODIUM P OCTYL BENZENE SULFONATE
503 SODIUM OCTYL BENZENE SULFONATE
172 SODIUM 2-N-OCTYL BENZENE SULFONATE
510 SODIUM 2-ETHYL-HEXYL BENZENE SULFONATE
676 SODIUM 1,1,3,3-TETRAMETHYL BUTYL BENZENE SULFONATE
677 SODIUM DI-/1,1,3,3-TETRAMETHYL BUTYL/BENZENESULFONATE
447 SODIUM PARA-BIS-/N-OCTYL/ BENZENE SULFONATE

C-9

299 SODIUM DECANOATE
29 SODIUM NONYL ALPHA SULFOPELARGONATE
616 MONOSODIUM ALPHAPHOSPHONO DECANOATE
606 SODIUM AMYL ALPHAPHOSPHONO CAPRATE
136 SODIUM ALPHA DIMETHYL AMINO CAPRATE
295 SODIUM NONYL 1-SULFATE
493 SODIUM P-NONYL BENZENE SULFONATE
504 SODIUM NONYL BENZENE SULFONATE
271 SODIUM TRI-ISO-PROPYL BENZENE SULFONATE
138 SODIUM NONYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN

C-10

30 SODIUM DECYL ALPHA SULFOPELARGONATE
33 SODIUM /OXO/ DECYL ALPHA SULFOPELARGONATE
3 SODIUM DECYL 1 SULFATE
15 SODIUM DECYL 2 SULFATE
182 SODIUM DECYL 1-SULFONATE
50 SODIUM P DECYL BENZENE SULFONATE
505 SODIUM DECYL BENZENE SULFONATE
173 SODIUM 2-N-DECYL BENZENE SULFONATE
511 SODIUM 2-PROPYL-HEPTYL BENZENE SULFONATE
140 SODIUM DECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
561 SANTOMERSE D /SODIUM DECYLBENZENE SULFONATE/

C-11

273 SODIUM DODECANOATE
527 SODIUM UNDECANE-3-CARBOXYLATE
235 SODIUM ALPHA SULFO LAURIC ACID
603 SODIUM PROPYL ALPHA SULFO LAURATE
607 SODIUM ISOPROPYL ALPHAPHOSPHONO LAURATE
620 DISODIUM ALPHAPHOSPHONO DODECANOATE
617 MONOSODIUM ALPHAPHOSPHONO DODECANOATE
311 SODIUM UNDECYL 1-SULFATE
72 SODIUM UNDECYL 3 SULFATE
80 SODIUM UNDECYL 6 SULFATE
639 SODIUM UNDECYL THIOSULFATE
462 SODIUM MONOLAURIN SULFATE
418 SODIUM UNDECYL SULFONATE
45 SODIUM P 1 METHYL DECYL BENZENE SULFONATE
678 SODIUM 1,1-DIMETHYLNONYL BENZENE SULFONATE
679 SODIUM 3-BUTYL HEPTYL BENZENE SULFONATE

PART 5. *Ionics grouped by counterion and arranged by number of carbon atoms in longest hydrophobic tail and by heads* — Continued

C-12

34 SODIUM DODECYL ALPHA SULFOPELARGONATE
1 SODIUM DODECYL 1 SULFATE
67 SODIUM DODECYL 2 SULFATE
562 SODIUM DODECENYL SULFATE
636 SODIUM DODECYL THIOSULFATE
541 SODIUM DODECYL MONO-OXYETHYLENE SULFATE
542 SODIUM DODECYL DIOXYETHYLENE SULFATE
113 SODIUM DODECYL TRI-OXYETHYLENE SULFATE
543 SODIUM DODECYL TETRA-OXYETHYLENE SULFATE
114 SODIUM DODECYL /OXYETHYLENE/17.5 SULFATE
597 SODIUM DODECYL MONO-OXYPROPYL SULFATE
179 SODIUM DODECANE 1-SULFONATE
175 SODIUM DODECANE 2-SULFONATE
238 SODIUM DODECANE 1-HYDROXY 2-SULFONATE
51 SODIUM P DODECYL BENZENE SULFONATE
506 SODIUM DODECYL BENZENE SULFONATE
171 SODIUM 2-N-DODECYL BENZENE SULFONATE
301 SODIUM 3-N-DODECYL BENZENE SULFONATE
302 SODIUM 4-N-DODECYL BENZENE SULFONATE
514 SODIUM 6-N-DODECYL BENZENE SULFONATE
512 SODIUM 2-BUTYL-OCTYL BENZENE SULFONATE
492 SODIUM TETRAPROPYLENE/1-3-5-7-TETRAMETHYL-OCTYL/BENZENE SULFONATE
680 SODIUM 2-PROPYL-4-METHYL-OCTYL BENZENE SULFONATE
139 SODIUM DODECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN
554 SANTOMERSE 3 /SODIUM DODECYL BENZENE SULFONATE/

C-13

298 SODIUM TETRADECANOATE
236 SODIUM ALPHA SULFO MYRISTIC ACID
604 SODIUM METHYL ALPHA SULFO MYRISTATE
233 DISODIUM ALPHA SULFO MYRISTATE
618 MONOSODIUM ALPHAPHOSPHONO TETRADECANOATE
608 SODIUM METHYL ALPHAPHOSPHONO MYRISTATE
621 DISODIUM ALPHAPHOSPHONO TETRADECANOATE
624 TRISODIUM ALPHAPHOSPHONO TETRADECANOATE
68 SODIUM TRIDECYL 2 SULFATE
83 SODIUM TRIDECYL 7 SULFATE
229 SODIUM TRIDECANE 1-SULFONATE
46 SODIUM P 1 METHYL DODECYL BENZENE SULFONATE
141 SODIUM TRIDECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN

C-14

4 SODIUM TETRADECYL 1 SULFATE
16 SODIUM TETRADECYL 2 SULFATE
73 SODIUM TETRADECYL 3 SULFATE
17 SODIUM TETRADECYL 4 SULFATE
77 SODIUM TETRADECYL 5 SULFATE
525 SODIUM TETRADECYL 6-SULFATE
84 SODIUM TETRADECYL 7 SULFATE
526 SODIUM 2-DI-N-HEXYL ETHYL SULFATE
544 SODIUM TETRADECYL MONO-OXYETHYLENE SULFATE
545 SODIUM TETRADECYL DI-OXYETHYLENE SULFATE
546 SODIUM TETRADECYL TRI-OXYETHYLENE SULFATE
598 SODIUM TETRADECYL MONO-OXYPROPYL SULFATE
599 SODIUM TETRADECYL DI-OXYPROPYL SULFATE
183 SODIUM TETRADECYL 1-SULFONATE
176 SODIUM TETRADECANE 2-SULFONATE
239 SODIUM TETRADECANE 1-HYDROXY 2-SULFONATE
507 SODIUM TETRADECYL BENZENE SULFONATE
174 SODIUM 2-N-TETRADECYL BENZENE SULFONATE
513 SODIUM 2-AMYL-NONYL BENZENE SULFONATE

C-15

300 SODIUM HEXADECANOATE
237 SODIUM ALPHA SULFO PALMITIC ACID
36 SODIUM METHYL ALPHA SULFOPALMITATE
192 SODIUM ETHYL ALPHA SULFOPALMITATE
193 SODIUM PROPYL ALPHA SULFOPALMITATE
234 DISODIUM ALPHA SULFO PALMITATE
197 DISODIUM 2 SULFOETHYL ALPHA SULFOPALMITATE
619 MONOSODIUM ALPHAPHOSPHONO HEXADECANOATE
609 SODIUM ISOPROPYL ALPHAPHOSPHONO PALMITATE
622 DISODIUM ALPHAPHOSPHONO HEXADECANOATE
625 TRISODIUM ALPHAPHOSPHONO HEXADECANOATE
69 SODIUM PENTADECYL 2 SULFATE
74 SODIUM PENTADECYL 3 SULFATE
78 SODIUM PENTADECYL 5 SULFATE
85 SODIUM PENTADECYL 8 SULFATE
230 SODIUM PENTADECANE 1-SULFONATE
47 SODIUM P 1 METHYL TETRADECYL BENZENE SULFONATE
142 SODIUM PENTADECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN

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5 SODIUM HEXADECYL 1 SULFATE
75 SODIUM HEXADECYL 4 SULFATE
81 SODIUM HEXADECYL 6 SULFATE
86 SODIUM HEXADECYL 8 SULFATE
52 SODIUM HEXADECYL MONO OXYETHYLENE SULFATE
53 SODIUM HEXADECYL DI OXYETHYLENE SULFATE
54 SODIUM HEXADECYL TRI OXYETHYLENE SULFATE
55 SODIUM HEXADECYL TETRA OXYETHYLENE SULFATE
600 SODIUM HEXADECYL MONO-OXYPROPYL SULFATE
184 SODIUM HEXADECYL 1-SULFONATE
177 SODIUM HEXADECANE 2-SULFONATE
240 SODIUM HEXADECANE 1-HYDROXY 2-SULFONATE
508 SODIUM HEXADECYL BENZENE SULFONATE

C-17

448 SODIUM OCTADECANOATE /STEARATE/
263 SODIUM OLEATE /CIS-9-OCTADECENOATE/
264 SODIUM ELAIDATE /TRANS-9-OCTADECENOATE/
9 SODIUM ALPHA SULFOSTEARIC ACID
194 SODIUM METHYL ALPHA SULFOSTEARATE
195 SODIUM ETHYL ALPHA SULFOSTEARATE
196 SODIUM PROPYL ALPHA SULFOSTEARATE
199 SODIUM ISOPROPYL ALPHA SULFOSTEARATE
10 DISODIUM ALPHA SULFOSTEARATE
198 DISODIUM 2 SULFOETHYL ALPHA SULFOSTEARATE
11 SODIUM ALPHA SULFO PHENYL STEARIC ACID
8 DISODIUM ALPHA SULFOPHENYLSTEARATE
12 SODIUM 9,10 DICHLORO ALPHA SULFOSTEARIC ACID
13 DISODIUM 9,10 DICHLORO ALPHA SULFOSTEARATE
14 DISODIUM 9,10 DIHYDROXY ALPHA SULFOSTEARATE
610 SODIUM METHYL ALPHAPHOSPHONO STEARATE
623 DISODIUM ALPHAPHOSPHONO OCTADECANOATE
626 TRISODIUM ALPHAPHOSPHONO OCTADECANOATE
70 SODIUM HEPTADECYL 2 SULFATE
87 SODIUM HEPTADECYL 9 SULFATE
231 SODIUM HEPTADECANE 1-SULFONATE
48 SODIUM P 1 METHYL HEXADECYL BENZENE SULFONATE

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64 SODIUM OCTADECYL 1 SULFATE
71 SODIUM OCTADECYL 2 SULFATE
76 SODIUM OCTADECYL 4 SULFATE
82 SODIUM OCTADECYL 6 SULFATE
61 SODIUM OLEYL/CIS 9 OCTADECENOYL/ SULFATE
62 SODIUM ELAIDYL/TRANS 9 OCTADECENOYL/SULFATE
63 SODIUM 9 10 DICHLORO OCTADECYL SULFATE
56 SODIUM OCTADECYL MONO OXYETHYLENE SULFATE
547 SODIUM OLEYL MONO-OXYETHYLENE SULFATE
57 SODIUM OCTADECYL DI OXYETHYLENE SULFATE
548 SODIUM OLEYL DI-OXYETHYLENE SULFATE
58 SODIUM OCTADECYL TRI OXYETHYLENE SULFATE
549 SODIUM OLEYL TRI-OXYETHYLENE SULFATE
59 SODIUM OCTADECYL TETRA OXYETHYLENE SULFATE
601 SODIUM OCTADECYL MONO-OXYPROPYL SULFATE
349 SODIUM OCTADECANE 1-SULFONATE
178 SODIUM OCTADECANE 2-SULFONATE
419 SODIUM ALPHA-HEPTYL UNDECYL SULFONATE
241 SODIUM OCTADECANE 1-HYDROXY 2-SULFONATE
509 SODIUM OCTADECYL BENZENE SULFONATE
79 SODIUM NONADECYL 5 SULFATE
88 SODIUM 1 NONYL DECYL SULFATE
683 SODIUM EICOSYLBENZENE SULFONATE
89 SODIUM 1 TETRADECYL PENTADECYL SULFATE

POTASSIUM

188 POTASSIUM HEXANOATE
701 POTASSIUM PERFLUROHEXANOATE
296 POTASSIUM HEPTANOATE
704 POTASSIUM 4-HEXYL RESORCINOLATE
44 POTASSIUM OCTANOATE
456 POTASSIUM PERFLUORO OCTANOATE
350 POTASSIUM NONANOATE
420 POTASSIUM 1-1-2-OCTANE TRICARBOXYLATE
90 POTASSIUM DECANOATE
702 POTASSIUM PERFLUORODECANOATE
668 DIPOTASSIUM OCTYL MALONATE
297 POTASSIUM UNDECANOATE
425 POTASSIUM 1-1-2-DECANE TRICARBOXYLATE
91 POTASSIUM DODECANOATE
669 DIPOTASSIUM DECYL MALONATE

C-12

351 POTASSIUM TRIDECANOATE
421 POTASSIUM 1-1-2-DODECANE TRICARBOXYLATE
632 POTASSIUM N-DODECYL BETA-ALANINATE
634 POTASSIUM DODECYL SULFATE
40 POTASSIUM DODECYL 1 SULFONATE
92 POTASSIUM TETRADECANOATE
670 DIPOTASSIUM DODECYL MALONATE
426 POTASSIUM 1-1-2-TETRADECANE TRICARBOXYLATE
185 POTASSIUM HEXADECANOATE
671 DIPOTASSIUM TETRADECYL MALONATE
422 POTASSIUM 1-1-2-HEXADECANE TRICARBOXYLATE
408 POTASSIUM HEXADECANE 1-SULFONATE
256 POTASSIUM STEARATE
305 POTASSIUM OLEATE/ CIS-9-OCTADECENOATE/
629 POTASSIUM ELAIDATE/TRANS-9-OCTADECENOATE/
255 POTASSIUM 9,10 DIHYDROXY STEARATE
630 POTASSIUM RICINOLEATE/12 HYDROXY OLEATE/
631 POTASSIUM RICINELAIDATE/12 HYDROXY ELAIDATE/
672 DIPOTASSIUM HEXADECYL MALONATE
673 DIPOTASSIUM OCTADECYL MALONATE
494 POTASSIUM DILINOLEATE

OTHER MONOVALENT METALS

111 LITHIUM DODECYL 1 SULFATE
635 LITHIUM DODECYL SULFONATE
637 LITHIUM TETRADECYL SULFATE
638 LITHIUM HEXADECYL SULFATE
627 CESIUM DODECANOATE
23 SILVER DODECYL 1 SULFATE

POLYVALENT METALS

339 MAGNESIUM HEXANE SULFONATE
340 MAGNESIUM OCTANE SULFONATE
341 MAGNESIUM DECANE SULFONATE
568 MAGNESIUM DODECYL SULFATE
342 MAGNESIUM DODECANE SULFONATE
24 CALCIUM DODECYL 1 SULFATE
569 STRONTIUM DODECYL SULFATE
573 CUPRIC DODECYL SULFATE
576 CUPRIC TETRADECYL SULFATE
577 CUPRIC HEXADECYL SULFATE
572 COBALTOUS DODECYL SULFATE
574 ZINC DODECYL SULFATE
571 MANGANESE DODECYL SULFATE
570 LEAD DODECYL SULFATE
575 NICKEL DODECYL SULFATE

AMMONIUM

355 AMMONIUM DODECAFLUOROHEPTANOATE H/CF2/6COONH4
286 AMMONIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE
372 AMMONIUM HEXADECAFLUORONONANOATE H/CF2/8 COO NH4
373 AMMONIUM EICOSAFLUOROUNDECANOATE H/CF2/10 COO NH4
386 AMMONIUM DODECYL SULFATE
387 METHYLAMMONIUM DODECYL SULFATE
388 ETHYLAMMONIUM DODECYL SULFATE
389 BUTYLAMMONIUM DODECYL SULFATE
303 DI-ISOPROPYLAMMONIUM CAPRYLATE
596 TETRAHYDROANACARDOL AMMONIUM MONOSULFONATE
409 TRIETHANOLAMMONIUM DODECYL SULFATE
60 TRIETHANOL AMMONIUM HEXADECYL SULFATE
65 TRIETHANOLAMMONIUM OCTADECYL 1 SULFATE
284 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-OCTANOATE
285 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-OLEATE
283 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-ELAIDATE

QUATERNARIES

112 TETRAMETHYL AMMONIUM DODECYL 1 SULFATE
382 ETHYL TRIMETHYLAMMONIUM DODECYL SULFATE
383 BUTYL TRIMETHYLAMMONIUM DODECYL SULFATE
277 BENZYL TRIMETHYL AMMONIUM DODECANOATE
720 1-6-DITRIMETHYLAMMONIUM-HEXANE/DODECYL SULFATE/2
718 TETRAETHYLAMMONIUM DODECYL SULFATE
719 TETRABUTYLAMMONIUM DODECYL SULFATE
410 MORPHOLINIUM DODECYL SULFATE

SURFACTANT

390 HEXYLAMMONIUM DODECYL SULFATE
391 OCTYLAMMONIUM DODECYL SULFATE
640 HEXYL TRIMETHYLAMMONIUM HEXANE SULFATE
644 HEXYL TRIMETHYLAMMONIUM HEXANE SULFONATE
641 HEXYL TRIMETHYLAMMONIUM OCTANE SULFATE
384 HEXYL TRIMETHYLAMMONIUM DODECYL SULFATE
347 OCTYL TRIMETHYLAMMOMIUM OCTYL SULFATE
287 OCTYL TRIMETHYLAMMONIUM OCTANE SULFONATE
642 OCTYL TRIMETHYLAMMONIUM DECANE SULFATE
353 OCTYL TRIMETHYLAMMONIUM DECANE SULFONATE
385 OCTYL TRIMETHYLAMMONIUM DODECYL SULFATE
346 DECYL TRIMETHYLAMMONIUM DECYL SULFATE
288 DECYL TRIMETHYLAMMONIUM DECANESULFONATE
280 DECYL TRIMETHYL AMMONIUM DODECYL SULFATE
643 DODECYL TRIMETHYLAMMONIUM OCTANE SULFATE
281 DODECYL TRIMETHYLAMMONIUM DODECYL SULFATE

5B. CATIONICS BY COUNTERIONS

HYDROXYL

706 PERFLUORO PROPYLAMINE
708 HEXYLAMINE

CHLORIDE

707 PERFLUORO PROPYLAMINE HYDROCHLORIDE
709 HEXYLAMINE HYDROCHLORIDE
354 HEXYL BENZYL DIMETHYLAMMONIUM CHLORIDE
392 OCTYLAMMONIUM CHLORIDE
483 DIOCTYL DIMETHYL AMMONIUM CHLORIDE
135 OCTYL C BETAINE HYDROCHLORIDE
451 PARA DI-ISOBUTYLPHENOXYETHOXYETHYL DIMETHYLBENZYL AMMONIUM CHLORIDE/HYAMINE 1622/
359 OCTYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
137 ALPHA DIMETHYLAMINO CAPRIC ACID HYDROCHLORIDE

C-10

37 DECYLAMMONIUM CHLORIDE
203 DECYL TRIMETHYL AMMONIUM CHLORIDE
356 DECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
360 DECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
304 CATOL 607 (N-/LAURYL-COLAMINO-FORMYL-METHYL/ -PYRIDINIUM CHLORIDE)

C-12

38 DODECYL AMMONIUM CHLORIDE
449 DODECYLMETHYL AMMONIUM CHLORIDE
450 DODECYLDIMETHYL AMMONIUM CHLORIDE
41 DODECYL TRIMETHYL AMMONIUM CHLORIDE
399 DODECYL DIMETHYL ETHYLAMMONIUM CHLORIDE
345 DIDODECYL DIMETHYLAMMONIUM CHLORIDE
403 DODECYL DIMETHYLPHENYLAMMONIUM CHLORIDE
279 DODECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
404 DODECYL DIMETHYL 2-PHENYLETHYLAMMONIUM CHLORIDE C6H5CH2CH2/N/CH3/2/C12H25
407 DODECYL DIMETHYL 3-PHENYLPROPYLAMMONIUM CHLORIDE C6H5CH2CH2/N/CH3/2/C12H25
370 DODECYL 3-4-METHYLENEDIOXYBENZYL DIMETHYLAMMONIUM CHLORIDE
371 DODECYL 3-4-DIMETHOXYBENZYL DIMETHYLAMMONIUM CHLORIDE
361 DODECYL 4-NITROBENZYL DIMETHYL AMMONIUM CHLORIDE
368 DODECYL 2-HYDROXY-5-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
365 DODECYL 2-CHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
367 DODECYL 4-CHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
366 DODECYL 2-4-DICHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
369 DODECYL 3-4-DICHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE
406 DODECYL DIMETHYL META-TRIFLUOROMETHYLBENZYL AMMONIUM CHLORIDE CF3C6H4CH2/N/CH3/2/C12H25
400 DODECYL METHYL DIETHYLAMMONIUM CHLORIDE
405 DODECYL METHYLETHYLBENZYLAMMONIUM CHLORIDE
401 DODECYL TRIETHYLAMMONIUM CHLORIDE
22 DIMETHYL DODECYL AMINE OXIDE HYDROCHLORIDE
633 N-DODECYL BETA-ALANINE HYDROCHLORIDE
124 DODECYL N BETAINE HYDROCHLORIDE
278 DODECYL PYRIDINIUM CHLORIDE
528 DODECYL TROPYLIUM PERCHLORATE
500 DODECYL TRI/2-HYDROXYETHYL/AMMONIUM CHLORIDE

C-13

402 TRIDECYL TRIMETHYLAMMONIUM CHLORIDE
39 TETRADECYL AMMONIUM CHLORIDE
42 TETRADECYL TRIMETHYL AMMONIUM CHLORIDE
357 TETRADECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
362 TETRADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
125 TETRADECYL N BETAINE HYDROCHLORIDE

C-16

186 HEXADECYL AMMONIUM CHLORIDE

PART 5. *Ionics grouped by counterion and arranged by number of carbon atoms in longest hydrophobic tail and by heads* – Continued

275 HEXADECYL DIMETHYLBENZYLAMMONIUM CHLORIDE
265 HEXADECYL TRIMETHYL AMMONIUM CHLORIDE
266 HEXADECYL DIMETHYL 2-HYDROXYETHYL AMMONIUM CHLORIDE
269 HEXADECYLDIMETHYL2,3-DIHYDROXYPROPYLAMMONIUM CHLORIDE
363 HEXADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
267 HEXADECYL DI-/2-HYDROXYETHYL/METHYL AMMONIUMCHLORIDE
268 HEXADECYL TRI-/2-HYDROXYETHYL/ AMMONIUM CHLORIDE
274 HEXADECYL PYRIDINIUM CHLORIDE
693 N-CETYL 2-METHYL PYRIDINIUM CHLORIDE
694 N-CETYL 3-METHYL PYRIDINIUM CHLORIDE
695 N-CETYL 4-METHYL PYRIDINIUM CHLORIDE

C-18

187 OCTADECYL AMMONIUM CHLORIDE
270 OCTADECYL TRIMETHYLAMMONIUM CHLORIDE
358 OCTADECYL BENZYL DIMETHYLAMMONIUM CHLORIDE
364 OCTADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE
655 OCTADECYL PYRIDINIUM CHLORIDE

BROMIDE

93 OCTYL TRIMETHYL AMMONIUM BROMIDE
100 OCTYL PYRIDINIUM BROMIDE
94 NONYL TRIMETHYL AMMONIUM BROMIDE
95 DECYL TRIMETHYL AMMONIUM BROMIDE
96 UNDECYL TRIMETHYL AMMONIUM BROMIDE
101 UNDECYL PYRIDINIUM BROMIDE
628 DODECYLAMMONIUM BROMIDE
97 DODECYL TRIMETHYL AMMONIUM BROMIDE
293 DODECYL DIMETHYL AMINE OXIDE HYDROBROMIDE
290 DODECYL PYRIDINIUM BROMIDE
717 DODECYLQUINOLINIUM BROMIDE

C-14

98 TETRADECYL TRIMETHYL AMMONIUM BROMIDE
291 TETRADECYL TRIPROPYLAMMONIUM BROMIDE
102 TETRADECYL PYRIDINIUM BROMIDE
99 HEXADECYL TRIMETHYLAMMONIUM BROMIDE
478 HEXADECYL DIMETHYLETHYLAMMONIUM BROMIDE
292 HEXADECYL TRIPROPYLAMMONIUM BROMIDE
427 HEXADECYL PYRIDINIUM BROMIDE
477 OCTADECYL TRIMETHYLAMMONIUM BROMIDE
657 OCTADECYL PYRIDINIUM BROMIDE

IODIDE

458 DECYL PYRIDINIUM IODIDE
126 DODECYL TRIMETHYLAMMONIUM IODIDE
376 DODECYL PYRIDINIUM IODIDE
479 TETRADECYL PYRIDINIUM IODIDE
480 HEXADECYL PYRIDINIUM IODIDE
696 N-CETYL 2-METHYL PYRIDINIUM IODIDE
697 N-CETYL-3-METHYL PYRIDINIUM IODIDE
698 N-CETYL-4-METHYL PYRIDINIUM IODIDE
481 OCTADECYL PYRIDINIUM IODIDE

FLUORIDE

130 DODECYL TRIMETHYL AMMONIUM FLUORIDE

NITRATE

482 DODECYL AMMONIUM NITRATE
131 DODECYL TRIMETHYLAMMONIUM NITRATE
654 OCTADECYL TRIMETHYLAMMONIUM NITRATE
656 OCTADECYL PYRIDINIUM NITRATE

BROMATE

129 DODECYL TRIMETHYL AMMONIUM BROMATE
666 HEXADECYL TRIBUTYLAMMONIUM BROMATE
658 OCTADECYL TRIMETHYLAMMONIUM BROMATE
662 OCTADECYL TRIETHYLAMMONIUM BROMATE
663 OCTADECYL TRIPROPYLAMMONIUM BROMATE
664 OCTADECYL TRIBUTYLAMMONIUM BROMATE
665 OCTADECYL TRIAMYLAMMONIUM BROMATE

IODATE

127 DODECYL TRIMETHYL AMMONIUM IODATE
660 HEXADECYL PYRIDINIUM IODATE
661 OCTADECYL PYRIDINIUM IODATE

SULFATE

306 DECYL TRIMETHYLAMMONIUM SULFATE
307 DODECYL TRIMETHYLAMMONIUM SULFATE
491 DODECYL TROPYLIUM BISULFATE
308 TETRADECYL TRIMETHYLAMMONIUM SULFATE
309 HEXADECYL TRIMETHYLAMMONIUM SULFATE

PHOSPHATE

460 DODECYL TROPYLIUM MONOPHOSPHATE

CARBOXYLATE

128 DODECYL TRIMETHYL AMMONIUM FORMATE
659 OCTADECYL TRIMETHYLAMMONIUM FORMATE
415 OCTADECYLAMMONIUM ACETATE
411 DECYLAMMONIUM ACETATE
412 DODECYLAMMONIUM ACETATE
413 TETRADECYLAMMONIUM ACETATE
414 HEXADECYLAMMONIUM ACETATE
667 OCTADECYL TRIMETHYLAMMONIUM OXALATE

SURFACTANT

391 OCTYLAMMONIUM DODECYL SULFATE
347 OCTYL TRIMETHYLAMMONIUM OCTYL SULFATE
287 OCTYL TRIMETHYLAMMONIUM OCTANE SULFONATE
642 OCTYL TRIMETHYLAMMONIUM DECANE SULFATE
353 OCTYL TRIMETHYLAMMONIUM DECANE SULFONATE
385 OCTYL TRIMETHYLAMMONIUM DODECYL SULFATE
346 DECYL TRIMETHYLAMMONIUM DECYL SULFATE
280 DECYL TRIMETHYL AMMONIUM DODECYL SULFATE
288 DECYL TRIMETHYLAMMONIUM DECANESULFONATE
643 DODECYL TRIMETHYLAMMONIUM OCTANE SULFATE
281 DODECYL TRIMETHYLAMMONIUM DODECYL SULFATE

PART 6. *Commercial names and ill defined structures arranged alphabetically.*

6. COMMERCIAL AND ILL-DEFINED

556 ARESKAP 100 /MONOBUTYL PHENYLPHENOL SODIUM MONOSULFONATE/
557 ARESKET 300 /MONOBUTYL BIPHENYL SODIUM MONOSULFONATE/
558 ARESKLENE 400 /DIBUTYL PHENYLPHENOL DISODIUMDISULFONATE
566 AQUAREX D
559 CATOL 605 /(N-(2-KETO-2-(2,-LAUROYL OXYETHYLAMINO))ETHYL TRIMETHYLAMMONIUM CHLORIDE/
304 CATOL 607 (N-/LAURYL-COLAMINO-FORMYL-METHYL/ - PYRIDINIUM CHLORIDE)
459 ALKYL/15-17/ /OXYETHYLENE/ /19-23/ALCOHOL / CETOMACROGOL 1000/
565 DAXAD 11
674 DIISOBUTYL BENZENE/OXYETHYLENE/6 ALCOHOL (DB) BRANCHED CHAIN, NATURAL OE DISTRIBUTION
494 POTASSIUM DILINOLEATE
651 EMASOL 1120 /ALKYL POLYOXYETHYLENE SORBITAN ESTER/
652 EMASOL 1130 /ALKYL POLYOXYETHYLENE SORBITAN ESTER/
653 EMULGEN 120 /ALKYL POLYOXYETHYLENE ETHER/
560 EMULSOL 607L (N-(2-KETO-2-(2,-LAUROYLOXYETHYL AMINO)) ETHYL) PYRIDINIUM CHLORIDE
451 PARA DI-ISOBUTYLPHENOXYETHOXYETHYL DIMETHYLBENZYL AMMONIUM CHLORIDE/HYAMINE 1622/
452 3-4-DICHLOROPERFLUORO BUTYRIC/KEL-F/ACID
453 3-5-6-TRICHLOROPERFLUORO HEXANOIC/KEL-F/ACID
454 3-5-7-8-TETRACHLOROPERFLUORO OCTANOIC/KEL-F/ACID
550 LAURIC ACID DIETHANOLAMINE CONDENSATE
564 NA OSR
682 SODIUM DIBUTYL NAPHTHALENE SULFONATE /NEKAL/
538 PLURONIC L62
539 RENEX 698
561 SANTOMERSE D /SODIUM DECYLBENZENE SULFONATE/
554 SANTOMERSE 3 /SODIUM DODECYL BENZENE SULFONATE/
567 SA-178
540 SIPONIC BC
555 TERGITOL TMN
563 ZEPHIRAN /COCONUT DIMETHYLBENZYL AMMONIUM CHLORIDE/

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 1 MOL WGT = 288.3 SODIUM DODECYL 1 SULFATE								
	10	8.67 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	10	8.81 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	10.0	8.55 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	1
	15	8.51 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	15	8.43 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	20	8.47 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	20	8.25 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	25	2.330X10-1 D 8.081X10-3 M	BA	EQUIV CONDCTNCE GRAPH	WILL MYSE	55005	T M	1
	25	2.340X10-1 D 8.116X10-3 M	BA	FOTOMTR SOLUBLZTN OROT	WILL MYSE	55005	T M	1
	25	2.36 X10-1 D 8.185X10-3 M	BB	DEBYE PLT LIGHT SCATTER	WILL MYSE	55005	T M	1
	25	8.39 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	25	8.1 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	GODD HIGH	55018	K	1
	25	2.324X10-1 D 8.061X10-3 M	BA	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T M	1
	25	8.3 X10-3 M	BB	SURFACE TNSN LINEAR PLOT	MIUR MATS	57025	TA	1
	25	8.16 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	25	8.27 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	HAMA	62036	T	1
	25.0	8.27 X10-3 M	BA	SPECFC CONDCTNCE EQUATNS	MUKE KAPA	66002	T	1
	25	8.15 X10-3 M	AB	SURFACE TENSION LOG PLOT	ELWO MYSE	66007	T	1
	25	8.2 X10-3 M	AA	SURFACE TNSN LINEAR PLOT	ELWO MYSE	66007	T	1
	25	8.4 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	ELWO MYSE	66007	T	1
	30	8.44 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	30	8.23 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	35	8.57 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	35	8.4 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	1
	35	8.39 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	40	8.88 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	40	8.60 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	45	9.10 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	45	8.86 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	50	9.61 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	D
	50	9.18 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	D
	55	9.95 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	55	9.8 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	1
	55.0	9.49 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	1
	55	9.61 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	60	1.016X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	65	1.091X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	70	1.14 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
1. E-2 M AG NO3	35	5.0 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
5. E 0 H DIOXANE	15	6.73 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.0 E 1 H DIOXANE	15	7.31 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.5 E 1 H DIOXANE	15	9.03 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.0 E 1 H DIOXANE	15	1.38 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.5 E 1 H DIOXANE	15	2.10 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2. E 0 H DIOXANE	25	8.01 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
3. E 0 H DIOXANE	25	8.06 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
5. E 0 H DIOXANE	25	7.7 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
7. E 0 H DIOXANE	25	8.5 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.0 E 1 H DIOXANE	25	9.0 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.5 E 1 H DIOXANE	25	1.31 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.0 E 1 H DIOXANE	25	2.12 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.5 E 1 H DIOXANE	25	3.0 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
5. E 0 H DIOXANE	35	8.74 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.0 E 1 H DIOXANE	35	1.05 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.5 E 1 H DIOXANE	35	1.90 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.00 E 2 A DEUTERIUM OXIDE	25.0	8.05 X10-3 M	BA	SPECFC CONDCTNCE EQUATNS	MUKE KAPA	66002	T	2
9.27 E 0 P ETHANOL	5	5.51 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
3. E 0 P ETHANOL	10.0	7.33 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
5. E 0 P ETHANOL	10.0	6.63 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
6. E 0 P ETHANOL	10.0	6.33 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9. E 0 P ETHANOL	10.0	5.55 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	10	5.50 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	15	5.54 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	20	5.67 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.91 E 0 H ETHANOL	20	5.65 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	WARD	40004	P	3
2.002E 1 H ETHANOL	20	8.5 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	WARD	40004	P	3
9.27 E 0 P ETHANOL	25	5.96 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P ETHANOL	25	1.067X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	30	6.33 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P ETHANOL	30	1.146X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	35	6.72 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Table of Recommended and Selected Critical Micelle Concentrations — Continued

	Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2.498E 1 P	ETHANOL	35	1.310X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P	ETHANOL	40	7.19 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P	ETHANOL	40	1.496X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P	ETHANOL	45	7.72 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P	ETHANOL	45	1.656X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P	ETHANOL	50	8.30 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P	ETHANOL	50	1.831X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
3. E 0 P	ETHANOL	55.0	8.75 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
5. E 0 P	ETHANOL	55.0	8.40 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
6. E 0 P	ETHANOL	55.0	8.42 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9. E 0 P	ETHANOL	55.0	8.92 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P	ETHANOL	55	8.96 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
1.0 E 1 P	ETHANOL	55.0	9.28 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
1.5 E 1 P	ETHANOL	55.0	1.160X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.0 E 1 P	ETHANOL	55.0	1.505X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P	ETHANOL	60	9.70 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P	ETHANOL	60	2.170X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
1. E-1 M	NA BR	21	4.1 X10-2 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			1.42 X10-3 M					M	
1. E-2 M	NA CL	21	1.62 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			5.619X10-3 M					M	
1. E-2 M	NA CL	21	1.52 X10-1 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	3
			5.272X10-3 M					M	
3. E 2 M	NA CL	21	9.2 X10-2 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	1
			3.19 X10-3 M					M	
1. E-1 M	NA CL	21	4.3 X10-2 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			1.49 X10-3 M					M	
3. E-2 M	NA CL	25	9.00 X10-2 D	BB	FOTOMTR SOLUBLZTN OROT	WILL MYSE	55005	T	1
			3.121X10-3 M					M	
3. E-2 M	NA CL	25	9.03 X10-2 D	BA	SPECFC CONDCTNCE GRAPH	WILL MYSE	55005	T	1
			3.132X10-3 M					M	
3. E-2 M	NA CL	25	9.18 X10-2 D	BB	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T	1
			3.184X10-3 M					M	
1.00 E-1 M	NA CL	25	4.30 X10-2 D	BA	SPECFC CONDCTNCE GRAPH	WILL MYSE	55005	T	3
			1.491X10-3 M					M	
2. E-1 M	NA CL	25.0	9.0 X10-4 M	BA	SPECFC CONDCTNCE GRAPH	MYSE MYSE	65018	T	3
1. E-2 M	NA F	21	1.61 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			5.584X10-3 M					M	
1. E-1 M	NA F	21	4.2 X10-2 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			1.45 X10-3 M					M	
1. E-2 M	NA I	21	1.62 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			5.619X10-3 M					M	
3. E-2 M	NA I	21	9.0 X10-2 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	1
			3.12 X10-3 M					M	
1. E-1 M	NA I	21	4.0 X10-2 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			1.38 X10-3 M					M	
1. E-2 M	NA NO3	35	5.7 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
5.03 E 0 H	PROPANOL-1	00.5	4.7 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.03 E 0 H	PROPANOL-1	10.5	4.0 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.03 E 0 H	PROPANOL-1	25.2	3.8 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.03 E 0 H	PROPANOL-1	33.5	4.1 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.03 E 0 H	PROPANOL-1	40.1	4.4 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.03 E 0 H	PROPANOL-1	50.0	5.1 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.71 E 0 H	PROPANOL-2	00.5	5.7 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.71 E 0 H	PROPANOL-2	10.5	4.9 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.71 E 0 H	PROPANOL-2	25.2	4.3 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	T	3
5.71 E 0 H	PROPANOL-2	33.5	4.5 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.71 E 0 H	PROPANOL-2	40.1	5.0 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.71 E 0 H	PROPANOL-2	50.0	5.7 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.06 E 0 H	PROPIONIC ACID	25.2	4.3 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.00 E 2 Y	PRESSURE	25	9.09 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	HAMA	62036	G	3
1.000E 3 Y	PRESSURE	25	9.45 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	HAMA	62036	G	3
1.500E 3 Y	PRESSURE	25	9.36 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	HAMA	62036	G	3
2.000E 3 Y	PRESSURE	25	9.09 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	HAMA	62036	G	3
3. E 0 D	SUCROSE	25	7.1 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	NAKA KAWA	64034	G	3
1.078E 1 C	0003	25.0	8.32 X10-3 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	3
2.006E 1 C	0003	25.0	8.54 X10-3 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	3
2.025E 1 C	0003	25.0	8.54 X10-3 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	3
3.478E 1 C	0003	25.0	9.88 X10-3 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	3
4.912E 1 C	0003	25.0	1.115X10-2 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	3
5.998E 1 C	0003	25.0	1.281X10-2 M	BA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	2
7.100E 1 C	0003	25.0	1.498X10-2 M	BA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	2
8.466E 1 C	0003	25.0	1.91 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	2
9.495E 1 C	0003	25.0	2.65 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	2
1.25 E 1 C	0004	RM	5.11 X10-3 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3

Concentration units: A — mol %; B — vol % solvent; C — mol % surfactant mixture; D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M — molar; N — normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2.5 E 1 C 0004	RM	3.88 X10-3 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
5.0 E 1 C 0004	RM	2.62 X10-3 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
COMPOUND NO = 2 MOL WGT - 232.2 SODIUM OCTYL 1 SULFATE								
	10	1.421X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	15	1.367X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	20	1.33 X10-1 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	3
	20	1.337X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	21	3.10 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		1.335X10-1 M					M	
	25	1.303X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	30.0	1.30 X10-1 M	CB	VELOCITY OF SOUND	SHIG	65022	T	3
	30	1.318X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	35	1.342X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	40	1.363X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	40.0	1.36 X10-1 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
	45	1.381X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	50	1.434X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	55	1.463X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
3. E-2 M NA CL	21	2.80 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		1.205X10-1 M					M	
1. E-1 M NA CL	21	2.37 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		1.020X10-1 M					M	
3. E-1 M NA CL	21	1.60 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		6.890X10-2 M					M	
1. E 0 M NA CL	21	8.0 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		3.44 X10-2 M					M	
COMPOUND NO = 3 MOL WGT - 260.3 SODIUM DECYL 1 SULFATE								
	0	3.88 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	5	3.64 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	10	3.48 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	D
	10	3.50 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	D
	15	3.41 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	15	3.39 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	20	3.35 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	20	3.31 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	25	3.32 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	25.0	3.26 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	MYSE KAPA	61005	T	1
	25.0	3.35 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	MYSE KAPA	61005	T	1
	25	3.27 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	25.0	3.32 X10-2 M	BA	SPECFC CONDCTNCE EQUATNS	MUKE KAPA	66002	T	1
	30	3.31 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	30	3.26 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	35	3.27 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	35	3.35 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	40	3.32 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	40	3.41 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	45	3.38 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	D
	45	3.49 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	D
	50	3.47 X10-2 M	DA	AVER SP EQUIV COND	FLOC	61007	L	D
	50	3.64 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	D
	55	3.59 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	D
	55	3.78 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	D
	60	3.73 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	65	3.88 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
1.00 E 2 A DEUTERIUM OXIDE	25.0	3.25 X10-2 M	BA	SPECFC CONDCTNCE EQUATNS	MUKE KAPA	66002	T	2
1.00 E-2 M NA CL	25.0	3.02 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	MYSE KAPA	61005	L	3
1.00 E-1 M NA CL	25.0	1.51 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	MYSE KAPA	61005	L	3
1.0 E 0 M NA CL	25.0	2.77 X10-3 M	BB	SPECFC CONDCTNCE GRAPH	MYSE MYSE	65018	T	3
1.25 E 1 C 0001	RM	2.02 X10-2 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
2.6 E 1 C 0001	RM	1.56 X10-2 M	DD	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
5.0 E 1 C 0001	RM	1.08 X10-2 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
5.00 E 1 C 0004	25	3.03 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
5.00 E 1 C 0004	30	3.09 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
5.00 E 1 C 0004	35	3.18 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
5.00 E 1 C 0004	40	3.31 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
5.00 E 1 C 0004	45	3.47 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	50	3.66 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	55	3.87 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	60	4.16 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	65	4.51 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	70	4.90 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	75	5.35 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3

Concentration units: A — mol %; B — vol % solvent; C — mol % surfactant mixture; D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M — molar; N — normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 4 MOL WGT = 316.4 SODIUM TETRADECYL 1 SULFATE								
	25	2.05 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	30	2.08 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	35	2.13 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	40	2.21 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	1
	40	2.21 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	45	2.31 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	50	2.43 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	55	2.58 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	60	2.77 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	65	2.99 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	70	3.22 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	75	3.50 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5. E 0 H DIOXANE	40	2.4 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.0 E 1 H DIOXANE	40	2.9 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.5 E 1 H DIOXANE	40	3.8 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.0 E 1 H DIOXANE	40	5.2 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.5 E 1 H DIOXANE	40	7.5 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
3.0 E 1 H DIOXANE	40	1.28 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
3.5 E 1 H DIOXANE	40	1.77 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
COMPOUND NO = 5 MOL WGT = 344.4 SODIUM HEXADECYL 1 SULFATE								
	40	5.2 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
	40.0	5.8 X10-4 M	BC	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
5. E 0 H DIOXANE	40	1.27 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.0 E 1 H DIOXANE	40	2.0 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.5 E 1 H DIOXANE	40	2.8 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.0 E 1 H DIOXANE	40	3.54 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.5 E 1 H DIOXANE	40	4.3 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
3.0 E 1 H DIOXANE	40	5.0 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
COMPOUND NO = 15 MOL WGT = 260.3 SODIUM DECYL 2 SULFATE								
	10	5.15 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	15	4.92 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	20	4.70 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	25	4.56 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	30	4.52 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	35	4.50 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	40	4.50 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	45	4.52 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	50	4.57 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	55	4.65 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	60	4.79 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	65	4.95 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
COMPOUND NO = 16 MOL WGT = 316.4 SODIUM TETRADECYL 2 SULFATE								
	25	3.27 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	30	3.28 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	35	3.31 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	40	3.38 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	45	3.48 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	50	3.64 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	55	3.83 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	60	4.04 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	65	4.29 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	70	4.60 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	75	5.00 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
COMPOUND NO = 17 MOL WGT = 316.4 SODIUM TETRADECYL 4 SULFATE								
	25	5.12 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	30	5.05 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	35	5.04 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	40.0	5.15 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
	40	5.12 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	45	5.23 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	50	5.38 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	55	5.57 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	60	5.85 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	65	6.21 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	70	6.62 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	75	7.11 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
COMPOUND NO = 18 MOL WGT = 292.4 OCTYL BETA D GLUCOSIDE								
	25	2.5 X10-2 M	BB	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	3

Concentration units: A — mol %; B — vol % solvent; C — mol % surfactant mixture; D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M — molar; N — normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 19 MOL WGT = 320.4 DECYL BETA D GLUCOSIDE								
	25	2.2 X10-3 M	BB	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	3
COMPOUND NO = 20 MOL WGT = 348.5 DODECYL BETA D GLUCOSIDE								
	25	1.9 X10-4 M	BB	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	3
COMPOUND NO = 21 MOL WGT = 229.4 DIMETHYL DODECYL AMINE OXIDE								
	27.0	2.10 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T	3
COMPOUND NO = 22 MOL WGT = 265.9 DIMETHYL DODECYL AMINE OXIDE HYDROCHLORIDE								
1. E-3 M H CL	27	1.9 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T	3
		7.14 X10-3 M					M	
1. E-2 M H CL	27	1.8 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T	3
		6.76 X10-3 M					M	
COMPOUND NO = 23 MOL WGT = 373.2 SILVER DODECYL 1 SULFATE								
	35	7.3 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	2
	55	8.4 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
1. E-2 M AG NO3	35	4.7 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
1. E-2 M NA NO3	35	5.4 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
COMPOUND NO = 24 MOL WGT = 570.8 CALCIUM DODECYL 1 SULFATE								
	70	3.4 X10-3 N	BB	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
1. E-2 M NA NO3	70	3.3 X10-3 N	BB	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
COMPOUND NO = 38 MOL WGT = 221.8 DODECYL AMMONIUM CHLORIDE								
	15	1.56 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	EGGE HARW	51006	T	3
	20	1.50 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P	2
	25	1.46 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	P	1
	25	1.47 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P	1
	27	1.50 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	EGGE HARW	51006	T	3
	30	1.47 X10-2 M	BB	DENSITY	CART ANAC	60005	K	1
	30	1.47 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K	1
	30	1.50 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	EGGE HARW	51006	T	1
	30	1.48 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P	1
	30	1.48 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	GK	1
	40	1.50 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P	2
	50	1.58 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P	3
	60	1.71 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P	3
3.66 E 0 A ACETONITRILE	30	1.61 X10-2 N	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	3
3.27 E 0 A ACETONE	30	1.30 X10-2 N	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	3
2.5 E-3 N BA CL2	30	1.36 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5. E-3 N BA CL2	30	1.30 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1. E-2 N BA CL2	30	1.13 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2. E-2 N BA CL2	30	9.4 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2.65 E 0 A ETHANOL	30	1.77 X10-2 N	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	3
2.5 E-3 M HEXYL AMMONIUM CL	30	1.43 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K	3
5. E-3 M HEXYL AMMONIUM CL	30	1.26 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K	3
2.5 E-3 N H CL	30	1.39 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5. E-3 N H CL	30	1.27 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1. E-2 N H CL	30	1.15 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2. E-2 N H CL	30	9.2 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2.5 E-3 N H NO3	30	1.20 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5. E-3 N H NO3	30	1.02 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1. E-2 N H NO3	30	7.5 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2. E-2 N H NO3	30	4.9 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1.619E 1 H METHANOL	25	1.77 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	P	3
2.465E 1 H METHANOL	25	2.37 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	3
4.82 E 0 A METHANOL	30	1.64 X10-2 N	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	3
1. E-3 N NA CL	30	1.42 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2.5 E-3 N NA CL	30	1.39 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5. E-3 N NA CL	30	1.30 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1. E-2 N NA CL	30	1.13 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2. E-2 N NA CL	30	8.9 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5. E-2 M NA CL	30	6.7 X10-3 M	BB	DENSITY	CART ANAC	60005	K	3
1. E-3 N NA NO3	30	1.37 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2.5 E-3 N NA NO3	30	1.23 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5. E-3 N NA NO3	30	9.9 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1. E-2 N NA NO3	30	7.6 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2. E-2 N NA NO3	30	4.6 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
8.00 E 0 H PROPANOL-2	25	9.2 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	3

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.619E 1 H PROPANOL-2	25	1.04 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	3
5.66 E 0 H TERTIARY BUTANOL	25	7.9 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	3
7.88 E 0 H TERTIARY BUTANOL	25	7.4 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	3
COMPOUND NO = 41 MOL WGT = 263.9 DODECYL TRIMETHYL AMMONIUM CHLORIDE								
	25.0	2.03 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
5. E 2 Y PRESSURE	25.0	2.09 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
1. E 3 Y PRESSURE	25.0	2.11 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
1.5 E 3 Y PRESSURE	25.0	2.04 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
2. E 3 Y PRESSURE	25.0	1.98 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
3. E 3 Y PRESSURE	25.0	1.87 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
4. E 3 Y PRESSURE	25.0	1.83 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
5. E 3 Y PRESSURE	25.0	1.81 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
COMPOUND NO = 42 MOL WGT = 292.0 TETRADECYL TRIMETHYL AMMONIUM CHLORIDE								
	25	1.47 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	HOYE MARM	G1002	T	3
COMPOUND NO = 44 MOL WGT = 182.3 POTASSIUM OCTANOATE								
3.3 E-2 W K OH	15	3.72 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	20	3.55 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	25	3.45 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	30	3.30 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	35	3.13 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	40	3.05 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	45	3.10 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	50	3.18 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	55	3.31 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
COMPOUND NO = 45 MOL WGT = 334.4 SODIUM P 1 METHYL DECYL BENZENE SULFONATE								
	35	2.53 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	GERS	57012	T	2
COMPOUND NO = 46 MOL WGT = 362.4 SODIUM P 1 METHYL DODECYL BENZENE SULFONATE								
	35	7.2 X10-4 W	CA	SPECFC CONDCTNCE GRAPH	GERS	57012	T	3
COMPOUND NO = 47 MOL WGT = 390.5 SODIUM P 1 METHYL TETRADECYL BENZENE SULFONATE								
	40	3.1 X10-4 W	BB	SPECFC CONDCTNCE GRAPH	GERS	57012	T	3
COMPOUND NO = 49 MOL WGT = 292.3 SODIUM P OCTYL BENZENE SULFONATE								
	35	1.47 X10-2 W	CA	SPECFC CONDCTNCE GRAPH	GERS	57012	T	3
COMPOUND NO = 50 MOL WGT = 320.4 SODIUM P DECYL BENZENE SULFONATE								
	50	1.47 X10-2 W	CA	SPECFC CONDCTNCE GRAPH	GERS	57012	T	3
COMPOUND NO = 51 MOL WGT = 348.4 SODIUM P DODECYL BENZENE SULFONATE								
	60	1.20 X10-3 W	CA	SPECFC CONDCTNCE GRAPH	GERS	57012	T	3
COMPOUND NO = 66 MOL WGT = 232.2 SODIUM OCTYL 2 SULFATE								
	40.0	1.80 X10-1 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
COMPOUND NO = 68 MOL WGT = 302.3 SODIUM TRIDECYL 2 SULFATE								
	40.0	6.50 X10-3 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
COMPOUND NO = 72 MOL WGT = 274.3 SODIUM UNDECYL 3 SULFATE								
	40.0	2.89 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
COMPOUND NO = 73 MOL WGT = 316.4 SODIUM TETRADECYL 3 SULFATE								
	40.0	4.30 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
COMPOUND NO = 75 MOL WGT = 344.4 SODIUM HEXADECYL 4 SULFATE								
	40.0	1.72 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
COMPOUND NO = 78 MOL WGT = 330.4 SODIUM PENTADECYL 5 SULFATE								
	40.0	3.40 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C.	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 80 MOL WGT – 274.3 SODIUM UNDECYL 6 SULFATE								
	40.0	8.3 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
COMPOUND NO = 81 MOL WGT 344.4 SODIUM HEXADECYL 6 SULFATE								
	40.0	2.35 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
COMPOUND NO = 83 MOL WGT – 302.3 SODIUM TRIDECYL 7 SULFATE								
	40.0	1.93 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
COMPOUND NO = 85 MOL WGT – 330.4 SODIUM PENTADECYL 8 SULFATE								
	40.0	6.65 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
COMPOUND NO = 86 MOL WGT – 344.4 SODIUM HEXADECYL 8 SULFATE								
	40.0	4.25 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
COMPOUND NO = 95 MOL WGT – 280.3 DECYL TRIMETHYL AMMONIUM BROMIDE								
	25	6.46 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	2
5.00 E 2 Y PRESSURE	25	6.70 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1.000E 3 Y PRESSURE	25	6.70 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1.500E 3 Y PRESSURE	25	6.50 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
3.000E 3 Y PRESSURE	25	5.56 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
COMPOUND NO = 97 MOL WGT – 308.4 DODECYL TRIMETHYL AMMONIUM BROMIDE								
	20	1.59 X10-2 M	BB	INTERFACIAL TENSION LOGM	HAYD PHIL	58012	L	D
	25	4.48 X10-1 D	BB	TURBIDITY PLT LITE SCATR	ANAC JOHN	64017	K	D
		1.452X10-2 M					M	
	25	1.44 X10-2 N	BA	EQUIV CONDCTNCE GRAPH	VOEK TART	55006	T	D
	25	1.564X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	D
	25	1.42 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	BRUN HOLT	61016	T	D
1. E-1 W PHENOL	25	4.62 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1.00 E-1 M NA BR	25	1.38 X10-1 D	BB	TURBIDITY PLT LITE SCATR	ANAC JOHN	64017	K	3
		4.474X10-3 M					M	
5.02 E-1 M NA BR	25	6.2 X10-2 D	BB	TURBIDITY PLT LITE SCATR	ANAC JOHN	64017	K	3
		2.01 X10-3 M					M	
5.00 E 2 Y PRESSURE	25	1.61 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1.000E 3 Y PRESSURE	25	1.616X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1.500E 3 Y PRESSURE	25	1.56 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
3.000E 3 Y PRESSURE	25	1.272X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
5. E-1 M UREA	25	1.56 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	BRUN HOLT	61016	T	3
2.0 E 0 M UREA	25	2.04 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	BRUN HOLT	61016	T	3
6.0 E 0 M UREA	25	4.54 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	BRUN HOLT	61016	T	3
5.00 E 2 Y PRESSURE	25	5.00 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1. E-1 W PHENOL								
1.000E 3 Y PRESSURE	25	5.03 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1. E-1 W PHENOL								
1.500E 3 Y PRESSURE	25	4.88 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1. E-1 W PHENOL								
3.000E 3 Y PRESSURE	25	3.88 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1. E-1 W PHENOL								
COMPOUND NO = 99 MOL WGT – 364.5 HEXADECYL TRIMETHYLAMMONIUM BROMIDE								
	25	9.20 X10-4 W	BA	SPECFC CONDCTNCE GRAPH	CZER	66030	T	2
	35	9.5 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	HART COLL	36001	P	D
	35	9.8 X10-4 M	BB	SPECFC CONDCTNCE GRAPH	HART COLL	36001	P	D
	35	1.020X10-3 W	BA	SPECFC CONDCTNCE GRAPH	CZER	66030	T	D
	45	1.155X10-3 W	BA	SPECFC CONDCTNCE GRAPH	CZER	66030	T	3
	55	1.320X10-3 W	BA	SPECFC CONDCTNCE GRAPH	CZER	66030	T	3
COMPOUND NO = 103 MOL WGT – 234.3 HEXYL /OXYETHYLENE/ 3 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	15	1.07 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	1.00 X10-1 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	7.8 X10-2 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 104 MOL WGT – 262.4 OCTYL /OXYETHYLENE/ 3 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	15	9.3 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	7.5 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
COMPOUND NO = 105 MOL WGT – 394.6 OCTYL /OXYETHYLENE/ 6 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	15	1.19 X10-2 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	9.9 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	7.7 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
COMPOUND NO = 106 MOL WGT – 526.7 OCTYL /OXYETHYLENE/ 9 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	15	1.6 X10-2 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	1.3 X10-2 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	1.1 X10-2 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
COMPOUND NO = 107 MOL WGT – 290.4 DECYL /OXYETHYLENE/ 3 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	15	7.3 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	6.0 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	5.6 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
COMPOUND NO = 108 MOL WGT – 422.6 DECYL /OXYETHYLENE/ 6 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	15	1.14 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	9.0 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	6.6 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
COMPOUND NO = 109 MOL WGT – 554.8 DECYL /OXYETHYLENE/ 9 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	15	1.4 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	1.3 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	1.1 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
COMPOUND NO = 110 MOL WGT – 450.7 DODECYL /OXYETHYLENE/ 6 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	15	1.08 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	8.7 X10-5 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	7.2 X10-5 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
COMPOUND NO = 111 MOL WGT – 272.3 LITHIUM DODECYL 1 SULFATE								
	26	8.77 X10 3 M	BA	EQUIV CONDCTNCE GRAPH	MYSE PRIN	59002	TL	2
	25	8.93 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	MYSE PRIN	59002	TL	2
COMPOUND NO = 112 MOL WGT – 339.5 TETRAMETHYL AMMONIUM DODECYL 1 SULFATE								
	25	5.41 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	MYSE PRIN	59002	TL	2
	25	5.52 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	MYSE PRIN	59002	TL	2
COMPOUND NO = 179 MOL WGT – 272.3 SODIUM DODECANE 1-SULFONATE								
	25	9.8 X10-3 M	AB	SURFACE TENSION LOG PLOT	BUJA GODD	65007	L	3
	40	9.7 X10-3 M	AB	SURFACE TENSION LOG PLOT	BUJA GODD	65007	L	3
COMPOUND NO = 181 MOL WGT – 216.2 SODIUM OCTYL 1-SULFONATE								
	23	1.55 X10-1 N	CB	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	3
	25	1.55 X10-1 M	CC	REFRACTIVE INDEX	KLEV	48005	T	3
	40	1.62 X10-1 M	CC	REFRACTIVE INDEX	KLEV	48005	T	3
COMPOUND NO = 182 MOL WGT – 244.3 SODIUM DECYL 1-SULFONATE								
	30	1.066X10 0 D	BA	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T	2
		4.363X10-2 M					M	
1.0 E-1 M NA CL	30	5.364X10-1 D	BA	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T	2
		2.195X10-2 M					M	

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source Evaluation
COMPOUND NO = 189 MOL WGT – 308.4 ALPHA SULFOMYRISTIC ACID							
	25	5.2 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	WEIL STIR	56008	K 3
COMPOUND NO = 203 MOL WGT – 235.8 DECYL TRIMETHYL AMMONIUM CHLORIDE							
	25	6.11 X10-2 M	BB	UNSPECIFIED CONDUCTANCE	HOYE MARM	61002	T 3
3.33 E 1 C 0041	25	1.96 X10-2 M	BB	UNSPEC SOLUBLZTN SDN 4	HOYE MARM	61002	T 3
COMPOUND NO = 208 MOL WGT – 294.4 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL HOMOGENEOUS HEAD GROUP							
	25	1.32 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL 3
COMPOUND NO = 209 MOL WGT – 338.5 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL HOMOGENEOUS HEAD GROUP							
	25	9.7 X10-5 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL 3
COMPOUND NO = 210 MOL WGT – 382.5 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP							
	25	1.25 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL 3
COMPOUND NO = 211 MOL WGT – 426.6 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP							
	25	1.54 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL 3
COMPOUND NO = 212 MOL WGT 470.7 P T OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP							
	25	2.05 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL 3
COMPOUND NO = 213 MOL WGT – 514.7 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP							
	25	2.46 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL 3
COMPOUND NO = 214 MOL WGT – 558.8 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL HOMOGENEOUS HEAD GROUP							
	25	2.80 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL 3
COMPOUND NO = 215 MOL WGT – 602.8 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP							
	25	3.35 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL 3
COMPOUND NO = 216 MOL WGT – 646.9 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL HOMOGENEOUS HEAD GROUP							
	25	3.35 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL 3
COMPOUND NO = 254 MOL WGT – 187.3 NONYL DIMETHYL AMINE OXIDE							
	25	5.4 X10-2 M	BC	HEAT OF DILUTION	BENJ	64016	L 3
COMPOUND NO = 255 MOL WGT – 354.6 POTASSIUM 9,10 DIHYDROXY STEARATE							
1. E-3 M K OH	60	7.5 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	GREG TART	48012	T 3
COMPOUND NO = 258 MOL WGT – 360.3 SODIUM DI-N-AMYL SULFOSUCCINATE							
	25	5.3 X10-2 M	BC	SURFACE TENSION LOG PLOT	WILL DIXO	57009	AL 3
COMPOUND NO = 259 MOL WGT – 388.4 SODIUM DI-N-HEXYL SULFOSUCCINATE							
	25	1.24 X10-2 M	BC	SURFACE TENSION LOG PLOT	WILL DIXO	57009	TL 3
COMPOUND NO = 260 MOL WGT – 444.5 SODIUM DI-N-OCTYL SULFOSUCCINATE							
	25	6.8 X10-4 M	BC	SURFACE TENSION LOG PLOT	WILL DIXO	57009	TL 3

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied: S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 262 MOL WGT – 444.5 SODIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE								
	25	2.5 X10-3 M	BC	SURFACE TENSION LOG PLOT	WILL DIXO	57009	TL	3
COMPOUND NO = 270 MOL WGT – 348.1 OCTADECYL TRIMETHYLAMMONIUM CHLORIDE								
4.74 E 0 H METHANOL	25	4.00 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	GRIE KRAU	48010	P	3
COMPOUND NO = 272 MOL WGT – 284.3 TRI-ISOPROPYL BENZENE SULFONIC ACID								
	50	5.5 X10-2 M	FB	EQUIV CONDCTNCE GRAPH	SHUC LING	49004	T	3
COMPOUND NO = 273 MOL WGT – 222.3 SODIUM DODECANOATE								
	25	2.44 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	3
1.1 E 1 PH OF SOLUTION	24	2.3 X10-2 M	BC	SURFACE TENSION LOG PLOT	HARV	56018	T	3
1.1 E 1 PH OF SOLUTION	30	2.25 X10-2 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	3
COMPOUND NO = 274 MOL WGT – 340.0 HEXADECYL PYRIDINIUM CHLORIDE								
	25	9.0 X10-4 M	BB	FOTOMTR SOLUBLZTN AZBZ	HART	38001	P	3
	80	2.36 X10-3 M	BC	SPECFC CONDCTNCE GRAPH	HART	36002	P	3
1.00 E 2 E NITROBENZENE	25	5.8 X10-4 M	BA	EQUIV CONDCTNCE GRAPH	GRIE KRAU	49018	T	3
COMPOUND NO = 278 MOL WGT – 283.9 DODECYL PYRIDINIUM CHLORIDE								
	25	1.47 X10-2 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
COMPOUND NO = 279 MOL WGT – 340.0 DODECYL BENZYL DIMETHYLAMMONIUM CHLORIDE								
	25.0	7.8 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
5. E 2 Y PRESSURE	25.0	8.25 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
1. E 3 Y PRESSURE	25.0	8.5 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
2. E 3 Y PRESSURE	25.0	8.2 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
3. E 3 Y PRESSURE	25.0	7.5 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
4. E 3 Y PRESSURE	25.0	7.1 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
5. E 3 Y PRESSURE	25.0	6.8 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
COMPOUND NO = 287 MOL WGT – 365.6 OCTYL TRIMETHYLAMMONIUM OCTANE SULFONATE								
	25	2.016X10-2 M	CA	SPECFC CONDCTNCE GRAPH	TART LING	43004	T	3
COMPOUND NO = 288 MOL WGT – 421.7 DECYL TRIMETHYLAMMONIUM DECANESULFONATE								
	25	1.36 X10-3 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
	40	1.40 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	TART LING	43004	P	3
COMPOUND NO = 290 MOL WGT – 328.3 DODECYL PYRIDINIUM BROMIDE								
	5	1.15 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	10	1.12 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	2
	15	1.10 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	2
	20	1.12 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	2
	25	1.14 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	1
	25	1.13 X10-2 M	CA	SPECFC CONDCTNCE GRAPH	BENT SPAR	66038	T	1
	30	1.18 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	2
	35	1.22 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	2
	40	1.28 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	45	1.35 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	50	1.40 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	55	1.48 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	60	1.54 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	65	1.63 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	70	1.72 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
2. E-2 M K BR	25	7.32 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
4. E-2 M K BR	25	4.88 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
6. E-2 M K BR	25	3.96 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
8. E-2 M K BR	25	3.36 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
6. E-2 M LI BR	25	3.96 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
6. E-2 M RB BR	25	3.35 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
COMPOUND NO = 295 MOL WGT – 246.2 SODIUM NONYL 1-SULFATE								
	21	1.59 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		6.458X10-2 M					M	
3. E-2 M NA CL	21	1.30 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		5.280X10-2 M					M	
1. E-1 M NA CL	21	1.00 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		4.061X10-2 M					M	

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
3. E-1 M NA CL	21	6.3 X10-1 D 2.55 X10-2 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
COMPOUND NO = 298 MOL WGT – 250.3 SODIUM TETRADECANOATE								
	25	6.9 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	3
	35	6.95 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	3
COMPOUND NO = 299 MOL WGT – 194.2 SODIUM DECANOATE								
	25	9.40 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	3
	35	9.80 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	3
COMPOUND NO = 301 MOL WGT – 348.4 SODIUM 3-N-DODECYL BENZENE SULFONATE								
	25	1.46 X10-3 M	FA	SPECFC CONDCTNCE GRAPH	LUDL	56005	T	3
COMPOUND NO = 302 MOL WGT – 348.4 SODIUM 4-N-DODECYL BENZENE SULFONATE								
	25	1.59 X10-3 M	FA	SPECFC CONDCTNCE GRAPH	LUDL	56005	T	3
COMPOUND NO = 311 MOL WGT – 274.3 SODIUM UNDECYL 1-SULFATE								
	21	4.4 X10-1 D 1.60 X10-2 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
3. E-2 M NA CL	21	2.65 X10-1 D 9.660X10-3 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
1. E-1 M NA CL	21	1.49 X10-1 D 5.432X10-3 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
3. E-1 M NA CL	21	8.5 X10-2 D 3.09 X10-3 M	BC	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
COMPOUND NO = 330 MOL WGT – 550.9 HEXADECYL/OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP								
	25	1.74 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	3
COMPOUND NO = 331 MOL WGT – 639.0 HEXADECYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP								
	25	2.09 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	3
COMPOUND NO = 332 MOL WGT – 771.2 HEXADECYL/OXYETHYLENE/12 ALCOHOL HOMOGENEOUS HEAD GROUP								
	25	2.34 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	3
COMPOUND NO = 333 MOL WGT – 903.4 HEXADECYL/OXYETHYLENE/15 ALCOHOL HOMOGENEOUS HEAD GROUP								
	25	3.09 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	3
COMPOUND NO = 334 MOL WGT – 1,167.8 HEXADECYL/OXYETHYLENE/21 ALCOHOL HOMOGENEOUS HEAD GROUP								
	25	3.89 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	3
COMPOUND NO = 340 MOL WGT – 410.8 MAGNESIUM OCTANE SULFONATE								
	23	1.10 X10-1 N	CB	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	3
COMPOUND NO = 341 MOL WGT – 466.9 MAGNESIUM DECANE SULFONATE								
	60	2.0 X10-2 N	CC	SPECFC CONDCTNCE GRAPH	LELO TART	51003	L	3
COMPOUND NO = 342 MOL WGT – 523.1 MAGNESIUM DODECANE SULFONATE								
	60	3.6 X10-3 N	CB	SPECFC CONDCTNCE GRAPH	LELO TART	51003	L	3
COMPOUND NO = 346 MOL WGT – 437.8 DECYL TRIMETHYLAMMONIUM DECYL SULFATE								
	25	4.6 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	63014	L	3
1.00 E 2 I NA BR	25	4.6 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	63014	L	3

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 347 MOL WGT – 381.6 OCTYL TRIMETHYLAMMOMIUM OCTYL SULFATE								
1.00 E 2 I NA BR	25	7.5 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	65005	T	3
COMPOUND NO = 348 MOL WGT – 443.2 NN-DIMETHYL 1-1-DIHYDROPENTADECAFLUORO OCTYL AMINE N-OXIDE /C7F15CH2N/CH3/20/								
	25	4.7 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	65005	T	3
COMPOUND NO = 353 MOL WGT – 393.7 OCTYL TRIMETHYLAMMONIUM DECANE SULFONATE								
	RM	5.75 X10-3 M	BB	DEBYE PLT LIGHT SCATTER	ANAC	53002	T	3
1.78 E-1 M K CL	RM	5.67 X10-3 M	BB	DEBYE PLT LIGHT SCATTER	ANAC	53002	T	3
2.65 E-1 M K CL	RM	5.67 X10-3 M	BB	DEBYE PLT LIGHT SCATTER	ANAC	53002	T	3
COMPOUND NO = 376 MOL WGT – 375.4 DODECYL PYRIDINIUM IODIDE								
	24.9	5.26 X10-3 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	3
	25	5.60 X10-3 M	DC	TURBIDITY PLT LITE SCATR	PARR	60015	T	3
	25	5.70 X10-3 M	CB	SURFACE TENSION UNSPEC	FORD OTTE	66028	T	3
COMPOUND NO = 380 MOL WGT – 278.4 HEXYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	9.0 X10-2 M	BB	REFRACTIVE INDEX	DONB JAN	63021	T	3
COMPOUND NO = 381 MOL WGT – 322.5 HEXYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	9.25 X10-2 M	BB	REFRACTIVE INDEX	DONB JAN	63021	T	3
COMPOUND NO = 385 MOL WGT – 437.8 OCTYL TRIMETHYLAMMONIUM DODECYL SULFATE								
	25	4.3 X10-4 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
COMPOUND NO = 393 MOL WGT – 338.5 BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	7.96 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	30	7.60 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
COMPOUND NO = 394 MOL WGT – 338.5 I-METHYL PROPYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	9.1 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	30	8.8 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
COMPOUND NO = 395 MOL WGT – 366.6 2-ETHYL BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	1.00 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	30	9.3 X10-2 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
COMPOUND NO = 396 MOL WGT – 394.6 2-PROPYL PENTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	2.30 X10-2 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	30	2.0 X10-2 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
COMPOUND NO = 397 MOL WGT – 422.7 2-BUTYL HEXYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	3.10 X10-3 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	25	2.84 X10-3 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
COMPOUND NO = 398 MOL WGT – 554.9 2-BUTYL HEXYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	3.20 X10-3 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	30	2.79 X10-3 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 416 MOL WGT – 314.1 PERFLUORO HEXANOIC ACID								
	0	1.09 X10-1 M	BC	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	3
	18	1.06 X10-1 M	BC	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	3
COMPOUND NO = 417 MOL WGT – 414.1 PERFLUORO OCTANOIC ACID								
	18	9.8 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	3
	35	9.3 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	3
	45	1.02 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	3
COMPOUND NO = 423 MOL WGT – 174.3 OCTYL/OXYETHYLENE/1 ALCOHOL--OCTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP								
	25	4.9 X10-3 M	BC	SURFACE TENSION LOG PLOT	SHIN YAMA	59013	T	3
COMPOUND NO = 424 MOL WGT – 204.3 OCTYL ALPHA-GLYCERYL ETHER								
	25	5.8 X10-3 M	BC	SURFACE TENSION LOG PLOT	SHIN YAMA	59013	T	3
COMPOUND NO = 427 MOL WGT – 384.5 HEXADECYL PYRIDINIUM BROMIDE								
	25	5.81 X10-4 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
	35	7.5 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	HART COLL	36001	T	3
	35	7.7 X10-4 M	BB	SPECFC CONDCTNCE GRAPH	HART COLL	36001	P	3
6.4 E 0 H METHANOL	25	7.51 X10-4 M	BC	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
1.470E 1 H METHANOL	25	1.18 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
1.991E 1 H METHANOL	25	1.69 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
2.602E 1 H METHANOL	25	2.81 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
3.520E 1 H METHANOL	25	6.01 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
COMPOUND NO = 449 MOL WGT – 235.9 DODECYLMETHYL AMMONIUM CHLORIDE								
	30	1.46 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS BR00	49013	T	3
COMPOUND NO = 450 MOL WGT – 249.9 DODECYLDIMETHYL AMMONIUM CHLORIDE								
	30	1.61 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS BR00	49013	T	3
COMPOUND NO = 456 MOL WGT – 452.2 POTASSIUM PERFLUORO OCTANOATE								
	25	2.88 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	30	2.74 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	40	2.65 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	55	2.76 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	70	3.07 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	85	3.54 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
9.4 E-3 W K NO3	30	2.43 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
1.82 E-2 W K NO3	30	2.22 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
2.96 E-2 W K NO3	30	2.01 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
8.3 E-3 W K NO3	40	2.40 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
2.39 E-2 W K NO3	40	2.07 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
4.08 E-2 W K NO3	40	1.79 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
7.31 E-2 W K NO3	40	1.46 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
1.13 E-2 W K NO3	55	2.42 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
2.30 E-2 W K NO3	55	2.17 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
3.54 E-2 W K NO3	55	1.93 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
4.65 E-2 W K NO3	55	1.82 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
6.01 E-2 W K NO3	55	1.65 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
7.77 E-2 W K NO3	55	1.49 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
1.28 E-2 W K NO3	70	2.75 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
3.77 E-2 W K NO3	70	2.22 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
8.22 E-2 W K NO3	70	1.82 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
4.65 E-2 W K NO3	85	2.59 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
7.71 E-2 W K NO3	85	2.27 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
COMPOUND NO = 458 MOL WGT – 347.3 DECYL PYRIDINIUM IODIDE								
	RM	2.25 X10-2 M	CB	MICELLAR SPECTRAL CHANGE	HARK KRIZ	51010	T	3
COMPOUND NO = 482 MOL WGT – 248.4 DODECYL AMMONIUM NITRATE								
	30	9.9 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	3
COMPOUND NO = 483 MOL WGT – 306.0 DIOCTYL DIMETHYL AMMONIUM CHLORIDE								
	30	2.83 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48014	K	3

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Table of Recommended and Selected Critical Micelle Concentrations — Continued

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 491 MOL WGT = 356.5 DODECYL TROPYLIUM BISULFATE								
7.8 E 1 H H2 SO4	25	2.2 X10-3 M	BC	SURFACE TENSION LOG PLOT	ABUH MYSE	65019	T	3
9.6 E 1 H H2 SO4	25	1.25 X10-2 M	BC	SURFACE TENSION LOG PLOT	ABUH MYSE	65019	T	3
9.6 E 1 H H2 SO4	25	5.4 X10-3 M	BC	SURFACE TENSION LOG PLOT	ABUH MYSE	65019	T	3
9. E-1 M NA2 SO4								
COMPOUND NO = 493 MOL WGT = 306.4 SODIUM P-NONYL BENZENE SULFONATE								
	20	4.6 X10-3 M	BB	SURFACE TENSION LOG PLOT	HARR	59001	L	3
COMPOUND NO = 500 MOL WGT = 354.0 DODECYL TRI/2-HYDROXYETHYL/AMMONIUM CHLORIDE								
	30	1.38 X10—2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49009	K	3
COMPOUND NO = 525 MOL WGT = 316.4 SODIUM TETRADECYL 6-SULFATE								
	60	9.80 X10—3 M		UNSPECIFIED CONDUCTANCE	WINS	48008	L	3
COMPOUND NO = 528 MOL WGT = 358.9 DODECYL TROPYLIUM PERCHLORATE								
7.0 E 1 H H CL04	25	8.6 X10-4 M	BC	SURFACE TENSION LOG PLOT	ABUH MYSE	65019	T	3
	30	1.25 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	SATA IWAM	63034	T	3
COMPOUND NO = 568 MOL WGT = 555.1 MAGNESIUM DODECYL SULFATE								
	30	1.25 X10—3 M	BB	UNSPECIFIED CONDUCTANCE	SATA IWAM	63034	T	3
COMPOUND NO = 572 MOL WGT = 589.7 COBALTOUS DODECYL SULFATE								
	30	1.23 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	SATA IWAM	63034	T	3
COMPOUND NO = 573 MOL WGT = 594.3 CUPRIC DODECYL SULFATE								
	30	1.20 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	SATA IWAM	63034	T	3
COMPOUND NO = 575 MOL WGT = 589.5 NICKEL DODECYL SULFATE								
	30	1.24 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	SATA IWAM	63034	T	3
COMPOUND NO = 587 MOL WGT = 307.5 DECYL DIMETHYLAMMONIOPROPANE SULFONATE								
	30	1.20 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HERR	66013	T	3
		3.902X10-2 M					M	
COMPOUND NO = 588 MOL WGT = 335.6 DODECYL DIMETHYLAMMONIOPROPANE SULFONATE								
	30	1.2 X10-1 D	BC	TURBIDITY PLT LITE SCATR	HERR	66013	T	3
2. E-1 M NA CL	30	1.0 X10-1 D	BC	METHOD NOT CITED	HERR	66013	G	3
		2.97 X10-3 M					M	
1. E 0 M NA CL	30	5.8 X10-2 D	BC	METHOD NOT CITED	HERR	66013	G	3
		1.72 X10-3 M					M	
COMPOUND NO = 590 MOL WGT = 299.6 DODECYL DIMETHYLAMMONIOPROPANE CARBOXYLATE								
	30	1.6 X10-1 D	BC	TURBIDITY PLT LITE SCATR	HERR	66013	T	3
		5.34 X10-3 M					M	
COMPOUND NO = 591 MOL WGT = 352.5 DODECYL DIMETHYLPHOSPHONIOPROPANE SULFONATE								
	30	8.5 X10-2 D	BC	TURBIDITY PLT LITE SCATR	HERR	66013	T	3
		2.41 X10-3 M					M	
COMPOUND NO = 593 MOL WGT = 351.6 DIMETHYL DODECYLAMMONIOPROPANE HYDROXY SULFONATE								
	30	7.0 X10-2 D	BC	METHOD NOT CITED	HERR	66013	T	3
		1.99 X10-3 M					M	
COMPOUND NO = 594 MOL WGT = 391.7 DODECYL DIPROPYL AMMONIOPROPANE SULFONATE								
	30	7.0 X10-2 D	BC	METHOD NOT CITED	HERR	66013	T	3
		1.78 X10-3 M					M	
COMPOUND NO = 634 MOL WGT = 304.5 POTASSIUM DODECYL SULFATE								
	40	7.8 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	MEGU KOND	56020	T	3
COMPOUND NO = 640 MOL WGT = 325.5 HEXYL TRIMETHYLAMMONIUM HEXANE SULFATE								
	25	1.1 X10-1 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
COMPOUND NO = 641 MOL WGT = 353.6 HEXYL TRIMETHYLAMMONIUM OCTANE SULFATE								
1.00 E 2 I NA BR	25	2.7 X10-2 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3

Concentration units: A — mol %; B — vol % solvent; C — mol % surfactant mixture; D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M — molar; N — normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 642 MOL WGT – 409.7 OCTYL TRIMETHYLAMMONIUM DECANE SULFATE								
	25	1.9 X10-3 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
COMPOUND NO = 643 MOL WGT – 437.8 DODECYL TRIMETHYLAMMONIUM OCTANE SULFATE								
1.00 E 2 I NA BR	25	4.5 X10-4 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
COMPOUND NO = 654 MOL WGT – 374.7 OCTADECYL TRIMETHYLAMMONIUM NITRATE								
5.01 E 0 H METHANOL	25	1.76 X10-4 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
1.227E 1 H METHANOL	25	3.28 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
1.508E 1 H METHANOL	25	4.37 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
1.985E 1 H METHANOL	25	5.93 X10-4 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
2.589E 1 H METHANOL	25	1.10 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
3.463E 1 H METHANOL	25	3.03 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
COMPOUND NO = 655 MOL WGT – 368.1 OCTADECYL PYRIDINIUM CHLORIDE								
	25	2.40 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
COMPOUND NO = 656 MOL WGT – 394.7 OCTADECYL PYRIDINIUM NITRATE								
	25	1.28 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	T	3
2.0 E 1 H METHANOL	25	5.76 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
COMPOUND NO = 657 MOL WGT – 412.6 OCTADECYL PYRIDINIUM BROMIDE								
2.0 E 1 H METHANOL	25	6.10 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
COMPOUND NO = 658 MOL WGT – 440.6 OCTADECYL TRIMETHYLAMMONIUM BROMATE								
	25	3.51 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	GRIE KRAU	48010	P	3
COMPOUND NO = 659 MOL WGT – 357.7 OCTADECYL TRIMETHYLAMMONIUM FORMATE								
	25	4.4 X10-4 M	BC	EQUIV CONDCTNCE GRAPH	GRIE KRAU	48010	T	3
COMPOUND NO = 662 MOL WGT – 482.7 OCTADECYL TRIETHYLAMMONIUM BROMATE								
	25	2.5 X10-4 M	BC	EQUIV CONDCTNCE GRAPH	MCDO KRAU	51009	T	3
COMPOUND NO = 667 MOL WGT – 713.4 OCTADECYL TRIMETHYLAMMONIUM OXALATE								
9.91 E 0 H ACETONE	25	1.61 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
1.39 E 1 H ACETONE	25	2.56 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
2.07 E 1 H ACETONE	25	6.50 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
2.88 E 1 H ACETONE	25	1.94 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
2.07 E 1 H METHANOL	25	2.50 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
3.02 E 1 H METHANOL	25	6.25 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
4.01 E 1 H METHANOL	25	2.20 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
COMPOUND NO = 668 MOL WGT – 292.5 DIPOTASSIUM OCTYL MALONATE								
	20	3.0 X10-1 M	BC	SURFACE TENSION UNSPEC	SHIN	55007	T	3
COMPOUND NO = 670 MOL WGT – 348.6 DIPOTASSIUM DODECYL MALONATE								
	25	5.0 X10-2 M	BB	FOTOMTR SOLUBLZTN 2NPA	SHIN	55007	T	3
COMPOUND NO = 671 MOL WGT – 376.7 DIPOTASSIUM TETRADECYL MALONATE								
	25	1.8 X10-2 M	BC	FOTOMTR SOLUBLZTN 2NPA	SHIN	55007	T	3
COMPOUND NO = 710 MOL WGT – 190.3 OCTYL DIMETHYL PHOSPHINE OXIDE								
	30	7.7 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HERR BRUS	66039	T	3
		4.04 X10-2 M					M	
COMPOUND NO = 712 MOL WGT – 246.4 DODECYL DIMETHYL PHOSPHINE OXIDE								
	1	2.0 X10-2 D	BC	TURBIDITY PLT LITE SCATR	HERR BRUS	66039	T	3
		8.11 X10-4 M					M	
	30	1.4 X10-2 D	BD	TURBIDITY PLT LITE SCATR	HERR BRUS	66039	T	3
		5.68 X10-4 M					M	
COMPOUND NO = 717 MOL WGT – 378.4 DODECYLQUINOLINIUM BROMIDE								
	25	4.80 X10-3 M	BB	SURFACE TENSION LOG PLOT	FEW GILB	58031	T	3
COMPOUND NO = 720 MOL WGT – 733.2 1-6-DITRIMETHYLAMMONIUM-HEXANE/DODECYL SULFATE/2								
	30	9.6 X10-4 M	CB	EQUIV CONDCTNCE GRAPH	MEGU KOND	59026	T	3

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 1 MOL WGT = 288.3 SODIUM DODECYL 1 SULFATE								
		53005		VALUES FRM REF IN CMC	KLIN LANG	57022		R
		59016		VALUES FRM REF IN CMC	BOTR CRES	60024		R
		47006		VALUES FRM REF IN CMC	CORR HARK	46005		R
				GRAPH DATA NOT RETRIEVED	KLEV	46007		R
	01.0	7.6 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	05.0	7.5 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	08.0	8.6 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	L
	UNK	1.83 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH HUBB	55003	K	L
		6.347X10-3 M					M	
	10	8.67 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	10	8.81 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	10.5	8.5 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	L
	10.0	8.55 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	1
	10	7.4 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	15	8.51 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	15	9.65 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	L
	15	8.43 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	20	8.47 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	20	9. X10-3 M	DE	VISCOSITY	HESS PHIL	39009	T	L
	20	8.0 X10-3 M	BB	INTERFACIAL TENSION LOGM	V VO	60025	T	L
	20	7.22 X10-3 M	CG	EQUIV COND 1ST DEVIATION	WARD	40004	T	L
	20	8.5 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	WARD	40004	P	L
	20	7.7 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	T	L
	20	6.6 X10-3 M	BB	SURFACE TENSION LOG PLOT	HARR	60004	L	L
	20	7.1 X10-3 M	BB	SURFACE TENSION LOG PLOT	HARR	60004	G	L
	20	8.25 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	20	7.95 X10-3 M	BB	INTERFACIAL TENSION LOGM	HAYD PHIL	58012	L	L
	20	8.0 X10-3 M	BB	SURFACE TENSION LOG PLOT	V VO	61026	TL	L
	21	2.5 X10-1 D	BD	REFRACTIVE INDEX	HUIS	64047	T	L
		8.67 X10-3 M					M	
	21	2.30 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	L
		7.977X10-3 M					M	
	21	2.15 X10-1 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
		7.457X10-3 M					M	
	23	8. X10-3 N	CD	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	L
	24.7	1.3 X10-1 P	HC	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
	25	1.83 X10-1 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		6.347X10-3 M					M	
	25	2.21 X10-1 D	CB	UNSPECIFIED CONDUCTANCE	SCHI FOWK	57014	T	L
		7.665X10-3 M					M	
	25	7.4 X10-3 M	BB	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
	25	2.330X10-1 D	BA	EQUIV CONDCTNCE GRAPH	WILL MYSE	55005	T	1
		8.081X10-3 M					M	
	25	2.340X10-1 D	BA	FOTOMTR SOLUBLZTN OROT	WILL MYSE	55005	T	1
		8.116X10-3 M					M	
	25	2.36 X10-1 D	BB	DEBYE PLT LIGHT SCATTER	WILL MYSE	55005	T	1
		8.185X10-3 M					M	
	25	8.39 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	25.2	8.0 X10-3 M	BA	AVER SP EQUIV COND	FLOC UBBE	53008	T	L
	25	8.2 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	L
	25	5.8 X10-3 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
	25	6. X10-3 M	CE	ELECTROMOTIVE FORCE	STAN RADL	60021	T	L
	25	8.1 X10-3 N	CC	UNSPECIFIED CONDUCTANCE	HAFF PICC	42005	T	L
	25	7.8 X10-3 M	BB	EQUIV COND 1ST DEVIATION	GODD HIGH	55018	T	L
	25	8.1 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	GODD HIGH	55018	K	1
	25	8.3 X10-3 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	25.0	7.4 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	25	2.324X10-1 D	BA	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T	1
		8.061X10-3 M					M	
	25	8.11 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	BENT SPAR	66038	T	L
	25	8.3 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	L
	25	8.8 X10-3 M	BC	VISCOSITY	MIUR MATS	57025	T	L
	25	8.3 X10-3 M	BB	SURFACE TNSN LINEAR PLOT	MIUR MATS	57025	TA	1
	25	8.2 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	MIUR MATS	57025	T	L
	25	8.16 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	25	8.2 X10-3 M	BC	SPECFC CONDCTNCE GRAPH	MIUR MATS	57025	T	L
	25.6	5.4 X10-3 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	25	8.27 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	HAMA	62036	T	1
	25	7.3 X10-4 M	HC	FOTOMTR SPCTR CHNGE PNCN	GINN HARR	58008	T	L
	25	5.63 X10-3 M	HC	SPECFC CONDCTNCE GRAPH	GINN HARR	58008	T	L
	25.0	7.2 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	25	1.63 X10-3 M	HG	FOTOMTR SPCTR CHNGE PNCN	GINN HARR	58008	T	L

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values—Continued

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	25	4.03 X10-3 M	HC	SPECFC CONDCTNCE GRAPH	GINN HARR	58008	T	L
	25	7.2 X10-2 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
	25	7.2 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25	2.29 X10-1 D	DC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
		7.943X10-3 M					M	
	25.0	8.22 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	MYSE OTTE	61017	TL	L
	25.0	7.83 X10-3 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	L	L
	25	8.2 X10-3 M	BC	UNSPECIFIED CONDUCTANCE	MIUR ARIS	58023	G	L
	25.0	8.27 X10-3 M	BA	SPECFC CONDCTNCE EQUATNS	MUKE KAPA	66002	T	1
	25	8.0 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	NAKA KAWA	64034	G	L
	25	8.15 X10-3 M	AB	SURFACE TENSION LOG PLOT	ELWO MYSE	66007	T	1
	25	8.2 X10-3 M	AA	SURFACE TNSN LINEAR PLOT	ELWO MYSE	66007	T	1
	25	8.4 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	ELWO MYSE	66007	T	1
	25	6.0 X10-3 M	GC	REFRACTIVE INDEX	LIN	57005	T	L
	26	6.02 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47006	T	L
	26	6.12 X10-3 M	DG	VISUAL SPCTR CHNGE RHD6	CORR HARK	47006	T	L
	26	6.02 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
	29	7.7 X10-3 M	BB	SURFACE TENSION LOG PLOT	BRAD	48022	T	L
	30	1.00 X10-2 M	GB	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
	30.0	8.0 X10-3 M	CB	VELOCITY OF SOUND	SHIG	65022	T	L
	30	8.44 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	30	5. X10-3 M	CE	SURFACE TENSION MINIMUM	KLEV RAIS	54010	T	L
	30	7.0 X10-3 W	CC	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
	30	8.23 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	35	8.57 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	35	8.4 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	1
	35	9.18 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	L
	35	8.39 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	35.8	5.0 X10-3 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	35	7.2 X10-3 M	BC	TURBIDMTR SOLUBLZTN LOH	MIUR ARIS	58023	TA	L
	40	1.2 X10-2 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T	L
	40	8.88 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	40.1	8.1 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	L
	40	6.1 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	MIYA	60029	T	L
	40	6.1 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	MIYA	60029	T	L
	40	7.00 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
	40	8.60 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	40.0	8.65 X10-3 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
	40	7.2 X10-3 M	XG	VELOCITY OF SOUND	KUPP SURY	65028	T	L
	40	8. X10-3 M	CD	VISCOSITY	NAKA NINO	64025	T	L
	40	8.9 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	MEGU KOND	56020	T	L
	45	9.10 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	45	8.86 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	45.0	4.6 X10-3 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	45.0	7.6 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	45	7.6 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	45	7.2 X10-3 M	BC	TURBIDMTR SOLUBLZTN LOH	MIUR ARIS	58023	TA	L
	50	8.1 X10-3 M	CB	EQUIV COND 1ST DEVIATION	LANG	53005	T	L
	50	9.3 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	LANG	53005	K	L
	50	8.1 X10-3 M	BB	INTERFACIAL TENSION LOGM	KLIN LANG	57022	T	L
	50	8.1 X10-3 M	BB	SURFACE TENSION LOG PLOT	KLIN LANG	57022	T	L
	50	9.61 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	D
	50	8.00 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
	50	7.3 X10-3 W	CC	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
	50	8.9 X10-3 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	50	9.18 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	D
	50	5.0 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	RAIS	52016	T	L
	50	6.8 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	50	6.8 X10-3 M	CC	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
	54	9.2 X10-3 M	BB	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
	55	9.95 X10-3 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	55	9.8 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	1
	55.0	9.3 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	L
	55.0	9.49 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	1
	55	2.26 X10-1 D	CB	UNSPECIFIED CONDUCTANCE	SCHI FOWK	57014	T	L
		7.839X10-3 M					M	
	55.0	7.8 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	55	9.61 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	55.0	4.5 X10-3 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	55	7.3 X10-3 M	BC	TURBIDMTR SOLUBLZTN LOH	MIUR ARIS	58023	TA	L
	60	1.10 X10-2 M	GB	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
	60	1.016X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	60	2.25 X10-1 D	DC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
		7.804X10-3 M					M	
	65	1.091X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	70	1.4 X10-2 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.
wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	65	1.091 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	70	1.4 X10-2 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T	L
	70	1.14 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
	70	6.6 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
	75	1.13 X10-4 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	75	6.6 X10-2 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
	90	1.20 X10-2 M	GB	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
	UNK	1.4 X10-2 D	HG	SURFACE TENSION UNSPEC	WAN	66016	T	L
	UNK	7.8 X10-3 M	BD	EMF ALONG CONC GRADIENT	BOTR CRES	59015	T	L
	UNK	8. X10-3 M	BD	ELECTROMOTIVE FORCE	BOTR CRES	59016	T	L
	UNK	5.9 X10-3 M	CG	VISUAL SPCTR CHNGE RHD6	STAN RADL	60021	T	L
	UNK	8.0 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	BOTR CRES	59015	T	L
	UNK	8. X10-3 M	BC	UNSPECIFIED CONDUCTANCE	BOTR CRES	59016	T	L
	UNK	8.6 X10-3 M	BC	ULTRAFILTRATION	HUTC	59018	K	L
	UNK	5.1 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
	RM	7.6 X10-3 M	CG	UNSPECIFIED CONDUCTANCE	PRIN HERM	56002	T	L
	RM	7.15 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
	UNK	6.2 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
	RM	7.2 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	MIUR MATS	57025	T	L
	UNK	6.5 X10-3 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
	RM	7.55 X10-3 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	L
	UNK	8.0 X10-3 M	BB	ELECTROMOTIVE FORCE	BOTR DE M	64032	T	L
	UNK	1.7 X10-1 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		5.89 X10-3 M					M	
1. E-2 M AG NO3	35	5.0 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
5. E-4 N AL CL3	70	5.1 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
7. E-4 N AL CL3	70	3.8 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1. E-3 N AL CL3	70	2.2 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2. E-3 N AL CL3	70	1.6 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
3 E-4 N BZL* C6H5 /CH3/2 N I	40	4.4 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
5. E-4 N BZL* C6H5 /CH3/2 N I	40	3.6 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
8. E-4 N BZL* C6H5 /CH3/2 N I	40	3.2 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.2 E-3 N BZL* C6H5 /CH3/2 N I	40	3.0 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.6 E-3 N BZL* C6H5 /CH3/2 N I	40	2.8 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.7 E-3 N BZL* C6H5 /CH3/2 N I	40	2.6 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
5. E-4 N (C4H9)(CH3)3 N I	40	5.2 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1. E-3 N (C4H9)(CH3)3 N I	40	4.3 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.4 E-3 N (C4H9)(CH3)3 N I	40	4.0 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.9 E-3 N (C4H9)(CH3)3 N I	40	3.5 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
3.0 E-3 N (C4H9)(CH3)3 N I	40	3.0 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1. E-4 N CA CL2	70	6.0 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
3. E-4 N CA CL2	70	5.1 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5. E-4 N CA CL2	70	4.3 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1. E-3 N CA CL2	70	3.9 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2. E-3 N CA CL2	70	3.0 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5. E-3 N CA CL2	70	2.2 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1.2 E-2 N CA CL2	70	1.8 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2.5 E-2 N CA CL2	70	1.4 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5. E-2 N CA CL2	70	1.2 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1.0 E-1 N CA CL2	70	1.0 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
3.0 E-1 N CA CL2	70	7.7 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
9.45 E-4 N CS CL	40	6.90 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.18 E-3 N CS CL	40	6.15 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
5.15 E-3 N CS CL	40	5.20 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
8.64 E-3 N CS CL	40	4.50 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.18 E-2 N CS CL	40	3.75 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.39 E-2 N CS CL	40	3.60 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.357E-2 N CS CL	40	2.75 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.59 E-2 N CS CL	40	2.65 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
3.79 E-2 N CS CL	40	2.10 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.04 E-2 N CS2 S04	40	3.05 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
3.31 E-2 N CS2 S04	40	2.30 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
E 0 CU S04				GRAPH DATA NOT RETRIEVED	SATA IWAM	63034		R
2.22 E 1 Q N-C10 GLYCEROL ETHER	25	8.4 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		2.91 X10-3 M					M	
2.22 E 1 Q N-C10 GLYCEROL ETHER	25	9.7 X10-2 D	CB	UNSPECIFIED CONDUCTANCE	SCHI FOWK	57014	T	L
		3.36 X10-3 M					M	
5. E 0 H DIOXANE	15	6.73 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.0 E 1 H DIOXANE	15	7.31 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.5 E 1 H DIOXANE	15	9.03 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.0 E 1 H DIOXANE	15	1.38 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.5 E 1 H DIOXANE	15	2.10 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2. E 0 H DIOXANE	25	8.01 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
3. E 0 H DIOXANE	25	8.06 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
5. E 0 H DIOXANE	25	7.7 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
7. E 0 H DIOXANE	25	8.5 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.0 E 1 H DIOXANE	25	9.0 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.5 E 1 H DIOXANE	25	1.31 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.0 E 1 H DIOXANE	25	2.12 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.5 E 1 H DIOXANE	25	3.0 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
5. E 0 H DIOXANE	35	8.74 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.0 E 1 H DIOXANE	35	1.05 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.5 E 1 H DIOXANE	35	1.90 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
7. E-2 P DECANOL-1	24.7	7. X10-2 P	HD	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
2.22 E 1 Q 3,5(CH3)2 C6H3 GLET*	25	1.70 X10-1 D	CB	UNSPECIFIED CONDUCTANCE	SCHI FOWK	57014	T	L
		5.896X10-3 M					M	
2.22 E 1 Q 3,5(CH3)2 C6H3 GLET*	25	1.4 X10-1 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		4.85 X10-3 M					M	
1.00 E 2 A DEUTERIUM OXIDE	25.0	8.05 X10-3 M	BA	SPECFC CONDCTNCE EQUATNS	MUKE KAPA	66002	T	2
9.27 E 0 P ETHANOL	5	5.51 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
3. E 0 P ETHANOL	10.0	7.33 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
5. E 0 P ETHANOL	10.0	6.63 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
6. E 0 P ETHANOL	10.0	6.33 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9. E 0 P ETHANOL	10.0	5.55 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	10	5.50 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	15	5.54 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	20	5.67 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.91 E 0 H ETHANOL	20	5.18 X10-3 M	CG	EQUIV COND 1ST DEVIATION	WARD	40004	T	L
9.91 E 0 H ETHANOL	20	5.65 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	WARD	40004	P	3
2.002E 1 H ETHANOL	20	8.5 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	WARD	40004	P	3
2.002E 1 H ETHANOL	20	7.22 X10-3 M	CG	EQUIV COND 1ST DEVIATION	WARD	40004	T	L
2.978E 1 H ETHANOL	20	1.30 X10-2 M	CC	EQUIV CONDCTNCE GRAPH	WARD	40004	P	L
2.978E 1 H ETHANOL	20	1.04 X10-2 M	CG	EQUIV COND 1ST DEVIATION	WARD	40004	T	L
9.27 E 0 P ETHANOL	25	5.96 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P ETHANOL	25	1.067X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	30	6.33 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P ETHANOL	30	1.146X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	35	6.72 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P ETHANOL	35	1.310X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	40	7.19 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P ETHANOL	40	1.496X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	45	7.72 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P ETHANOL	45	1.656X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	50	8.30 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P ETHANOL	50	1.831X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
3. E 0 P ETHANOL	55.0	8.75 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
5. E 0 P ETHANOL	55.0	8.40 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
6. E 0 P ETHANOL	55.0	8.42 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9. E 0 P ETHANOL	55.0	8.92 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
9.27 E 0 P ETHANOL	55	8.96 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
1.0 E 1 P ETHANOL	55.0	9.28 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
1.5 E 1 P ETHANOL	55.0	1.160X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.0 E 1 P ETHANOL	55.0	1.505X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P ETHANOL	55.0	2.005X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	L
9.27 E 0 P ETHANOL	60	9.70 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
2.498E 1 P ETHANOL	60	2.170X10-2 M	BB	EQUIV CONDCTNCE GRAPH	FLOC	57013	L	3
1.13 E 2 I HEXANOL-1	UNK	5.1 X10-3 M	BC	ULTRAFILTRATION	HUTC	59018	K	L
2. E-2 N K CL	70	3.1 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5. E-2 N K CL	70	2.4 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
0.10 E-1 N K CL	70	1.6 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1. E-3 N K OH	UNK	5. X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
4.08 E-3 N K2 SO4	40	6.00 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
7.42 E-3 N K2 SO4	40	5.05 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.50 E-2 N K2 SO4	40	3.95 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.16 E-2 N K2 SO4	40	3.45 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.67 E-2 N K2 SO4	40	3.10 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
3.60 E-2 N K2 SO4	40	2.50 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
4.53 E-2 N K2 SO4	40	2.35 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
5.61 E-3 N LI2 SO4	40	6.10 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.00 E-2 N LI2 SO4	40	5.35 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.49 E-2 N LI2 SO4	40	4.80 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.27 E-2 N LI2 SO4	40	4.00 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.74 E-2 N LI2 SO4	40	3.65 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
3.37 E-2 N LI2 SO4	40	3.40 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
4.36 E-2 N LI2 SO4	40	2.95 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
5.38 E-2 N LI2 SO4	40	2.65 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
7. E-2 P LAURYL ALCOHOL	24.7	9. X10-2 P	HD	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
5. E-1 I LAURYL ALCOHOL	25	8.1 X10-3 M	BC	UNSPECIFIED CONDUCTANCE	MIUR ARIS	58023	G	L
6.67 E-1 I LAURYL ALCOHOL	25	8.1 X10-3 M	BC	UNSPECIFIED CONDUCTANCE	MIUR ARIS	58023	G	L
1. E 0 I LAURYL ALCOHOL	25	8.0 X10-3 M	BC	UNSPECIFIED CONDUCTANCE	MIUR ARIS	58023	G	L
3.33 E 0 I LAURYL ALCOHOL	25	7.0 X10-3 M	BC	UNSPECIFIED CONDUCTANCE	MIUR ARIS	58023	G	L
6.25 E 0 I LAURYL ALCOHOL	25	6.5 X10-3 M	BC	UNSPECIFIED CONDUCTANCE	MIUR ARIS	58023	G	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values—Continued

	Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2.22 E 1 Q	LAURYL ALCOHOL	25	6.6 X10-2 D	CB	UNSPECIFIED CONDUCTANCE	SCHI FOWK	57014	T	L
			2.28 X10-3 M					M	
2.22 E 1 Q	LAURYL ALCOHOL	55	7.6 X10-2 D	CB	UNSPECIFIED CONDUCTANCE	SCHI FOWK	57014	T	L
			2.63 X10-3 M					M	
1. E-3 N	MG CL2	70	3.9 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5. E-3 N	MG CL2	70	2.2 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2.5 E-2 N	MG CL2	70	1.5 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5. E-2 N	MG CL2	70	1.25 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1.0 E-1 N	MG CL2	70	1.0 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2.5 E-1 N	MG CL2	70	8.2 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1. E-1 M	NA BR	21	4.13 X10-2 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
			1.432X10-3 M					M	
1. E-1 M	NA BR	21	4.1 X10-2 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			1.42 X10-3 M					M	
3. E-1 M	NA BR	21	2.3 X10-2 D	BC	TURBIDITY PLT LITE SCATR	HUIS	64047	T	L
			7.97 X10-4 M					M	
2. E-1 M	NA CL	10.0	7.7 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
1.00 E-1 M	NA CL	17.0	4.0 X10-2 D	CD	TURBIDITY PLT LITE SCATR	KURI	62009	T	L
			1.38 X10-3 M					M	
1.00 E-1 M	NA CL	18.0	4.0 X10-2 D	CD	TURBIDITY PLT LITE SCATR	KURI	62009	T	L
			1.38 X10-3 M					M	
1. E-2 M	NA CL	20	5.13 X10-3 M	BB	SURFACE TNSN LINEAR PLOT	MATI PETH	58020	T	L
5. E-2 M	NA CL	20	2.24 X10-3 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	60011	L	L
1. E-1 K	NA CL	20	1.4 X10-3 M	BC	INTERFACIAL TENSION LOGM	V VO	60025	T	L
1.0 E-1 M	NA CL	20	1.41 X10-3 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	60011	L	L
1.0 E-1 M	NA CL	20	1.51 X10-3 M	BB	SURFACE TNSN LINEAR PLOT	MATI PETH	58020	T	L
1.00 E-1 M	NA CL	20.0	4.1 X10-2 D	CD	TURBIDITY PLT LITE SCATR	KURI	62009	T	L
			1.42 X10-3 M					M	
2. E-1 M	NA CL	20	7.2 X10-4 M	CC	SURFACE TENSION LOG PLOT	HARR	59001	K	L
2.0 E-1 M	NA CL	20	7.59 X10-4 M	BB	SURFACE TNSN LINEAR PLOT	MATI PETH	58020	T	L
2.5 E-1 M	NA CL	20	5.89 X10-4 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	60011	L	L
5.0 E-1 M	NA CL	20	3.24 X10-4 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	60011	L	L
1. E-2 M	NA CL	21	1.62 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			5.619X10-3 M					M	
1. E-2 M	NA CL	21	1.52 X10-1 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	3
			5.272X10-3 M					M	
3. E-2 M	NA CL	21	9.2 X10-2 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	1
			3.19 X10-3 M					M	
3. E-2 M	NA CL	21	8.7 X10-2 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
			3.01 X10-3 M					M	
1. E-1 M	NA CL	21	4.2 X10-2 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
			1.45 X10-3 M					M	
1. E-1 M	NA CL	21	4.3 X10-2 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			1.49 X10-3 M					M	
3. E-1 M	NA CL	21	1.9 X10-2 D	BC	TURBIDITY PLT LITE SCATR	HUIS	64047	T	L
			6.59 X10-4 M					M	
3. E-1 M	NA CL	21	2.4 X10-2 D	BC	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
			8.32 X10-4 M					M	
2. E-2 M	NA CL	25	1.10 X10-1 D	BE	DEBYE PLT LIGHT SCATTER	WILL MYSE	55005	T	L
			3.815X10-3 M					M	
2. E-2 M	NA CL	25	1.05 X10-1 D	BD	TURBIDITY PLT LITE SCATR	WILL MYSE	55005	T	L
			3.642X10-3 M					M	
3. E-2 M	NA CL	25	9.00 X10-2 D	BB	FOTOMTR SOLUBLZTN OROT	WILL MYSE	55005	T	1
			3.121X10-3 M					M	
3. E-2 M	NA CL	25	9.03 X10-2 D	BA	SPECFC CONDCTNCE GRAPH	WILL MYSE	55005	T	1
			3.132X10-3 M					M	
3. E-2 M	NA CL	25	8.9 X10-2 D	BC	DEBYE PLT LIGHT SCATTER	WILL MYSE	55005	T	L
			3.08 X10-3 M					M	
3. E-2 M	NA CL	25	8.3 X10-2 D	BB	TURBIDITY PLT LITE SCATR	WILL MYSE	55005	T	L
			2.87 X10-3 M					M	
3. E-2 M	NA CL	25	9.18 X10-2 D	BB	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T	1
			3.184X10-3 M					M	
7.5 E-2 M	NA CL	25	1. X10-2 D	BE	TURBIDITY PLT LITE SCATR	PRIN HERM	56011	T	L
			3.4 X10-4 M					M	
1. E-1 M	NA CL	25	1.7 X10-3 M	BC	ULTRACENTRIFUGATION	ANAC JOHN	64017	T	L
1. E-1 M	NA CL	25	3.0 X10-2 D	BC	TURBIDITY PLT LITE SCATR	WILL MYSE	55005	T	L
			1.04 X10-3 M					M	
1. E-1 M	NA CL	25	3.7 X10-2 D	BC	DEBYE PLT LIGHT SCATTER	WILL MYSE	55005	T	L
			1.28 X10-3 M					M	
1.0 E-1 M	NA CL	25	4.10 X10-2 D	BC	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T	L
			1.422X10-3 M					M	
1.00 E-1 M	NA CL	25	4.15 X10-2 D	BC	FOTOMTR SOLUBLZTN OROT	WILL MYSE	55005	T	L
			1.439X10-3 M					M	
1.00 E-1 M	NA CL	25	4.30 X10-2 D	BA	SPECFC CONDCTNCE GRAPH	WILL MYSE	55005	T	3
			1.491X10-3 M					M	

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values—Continued

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2. E-1 M NA CL	25	2.8 X10-2 D 9.71 X10-4 M	BD	DEBYE PLT LIGHT SCATTER	WILL MYSE	55005	T M	L
2. E-1 M NA CL	25	2.5 X10-2 D 8.67 X10-4 M	BC	TURBIDITY PLT LITE SCATR	WILL MYSE	55005	T M	L
2. E-1 M NA CL	25.0	7.5 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
2. E-1 M NA CL	25.0	9.0 X10-4 M	BA	SPECFC CONDCTNCE GRAPH	MYSE MYSE	65018	T	3
3. E-1 M NA CL	25.0	7. X10-4 M	BD	SPECFC CONDCTNCE GRAPH	MYSE MYSE	65018	T	L
4. E-1 M NA CL	25	1.7 X10-2 D 5.89 X10-4 M	BD	DEBYE PLT LIGHT SCATTER	WILL MYSE	55005	T M	L
4. E-1 M NA CL	25	1.6 X10-2 D 5.54 X10-4 M	BD	TURBIDITY PLT LITE SCATR	WILL MYSE	55005	T M	L
4.0 E-1 M NA CL	25	1.894X10-2 D 6.569X10-4 M	BC	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T M	L
2.05 E-3 M NA CL	26	5.11 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
4.88 E-3 M NA CL	26	4.47 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
9.36 E-3 M NA CL	26	4.19 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.85 E-2 M NA CL	26	3.40 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3.11 E-2 M NA CL	26	2.75 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
4.60 E-2 M NA CL	26	2.11 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
7.53 E-2 M NA CL	26	1.73 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.47 E-1 M NA CL	26	1.35 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
2.43 E-1 M NA CL	26	1.11 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
2.69 E-1 M NA CL	26	1.10 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3.16 E-1 M NA CL	26	9.73 X10-4 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3.54 E-1 M NA CL	26	8.66 X10-4 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
5. E-2 M NA CL	30	2.54 X10-3 M	CC	VELOCITY OF SOUND	SHIG	66010	G	L
1. E-1 M NA CL	30	1.63 X10-3 M	CC	VELOCITY OF SOUND	SHIG	66010	G	L
1.00 E-1 M NA CL	30.0	4.8 X10-2 D 1.66 X10-3 M	CD	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
2. E-1 M NA CL	30	3.0 X10-2 D 1.04 X10-3 M	CD	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T M	L
5. E-1 M NA CL	30	5.9 X10-4 M	CD	VELOCITY OF SOUND	SHIG	66010	G	L
1. E-2 M NA CL	40	5.37 X10-3 M	BB	SURFACE TNSN LINEAR PLOT	MATI PETH	58020	T	L
6.75 E-2 M NA CL	40	1.6 X10-3 M	CG	FOTOMTR SPCTR CHNGE RHD6	MEGU KOND	56020	T	L
1.0 E-1 M NA CL	40	1.62 X10-3 M	BB	SURFACE TNSN LINEAR PLOT	MATI PETH	58020	T	L
2.0 E-1 M NA CL	40	8.71 X10-4 M	BB	SURFACE TNSN LINEAR PLOT	MATI PETH	58020	T	L
1.00 E-1 M NA CL	50.2	7.2 X10-2 D 2.49 X10-3 M	CD	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
2. E-1 M NA CL	50	4.0 X10-2 D 1.38 X10-3 M	CD	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T M	L
2. E-1 M NA CL	55.0	1.1 X10-3 M	BD	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
1. E-2 M NA CL	60	6.17 X10-3 M	BB	SURFACE TNSN LINEAR PLOT	MATI PETH	58020	T	L
1.0 E-1 M NA CL	60	2.04 X10-3 M	BB	SURFACE TNSN LINEAR PLOT	MATI PETH	58020	T	L
2.0 E-1 M NA CL	60	1.45 X10-3 M	BB	SURFACE TNSN LINEAR PLOT	MATI PETH	58020	T	L
1.00 E-1 M NA CL	69.8	1.10 X10-1 D 3.815X10-3 M	CD	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1. E-2 N NA CL	70	4.5 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2. E-2 N NA CL	70	3.2 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5. E-2 N NA CL	70	2.3 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1.0 E-1 N NA CL	70	1.6 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2. E-1 M NA CL	70	6.0 X10-2 D 2.08 X10-3 M	CD	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T M	L
2.0 E-1 N NA CL	70	1.2 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5.0 E-1 N NA CL	70	7.5 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
6.1 E-3 M NA CL	RM	5.7 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
1.09 E-2 M NA CL	RM	5.0 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
1.83 E-2 M NA CL	RM	4.1 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
2. E-2 M NA CL	UNK	7.1 X10-2 D 2.46 X10-3 M	CD	TURBIDITY PLT LITE SCATR	KUSH HUBB	55003	K M	L
3.0 E-2 M NA CL	RM	3.5 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	G	L
3.21 E-2 M NA CL	RM	3.4 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
4. E-2 M NA CL	UNK	6.0 X10-2 D 2.08 X10-3 M	CE	TURBIDITY PLT LITE SCATR	KUSH HUBB	55003	K M	L
5.59 E-2 M NA CL	RM	3.0 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
6. E-2 M NA CL	UNK	4.8 X10-2 D 1.66 X10-3 M	CE	TURBIDITY PLT LITE SCATR	KUSH HUBB	55003	K M	L
1.2 E-1 M NA CL	UNK	2.6 X10-2 D 9.01 X10-4 M	CE	TURBIDITY PLT LITE SCATR	KUSH HUBB	55003	K M	L
2.0 E-1 M NA CL	UNK	1.1 X10-2 D 3.81 X10-4 M	CE	TURBIDITY PLT LITE SCATR	KUSH HUBB	55003	K M	L
1. E-2 M NA F	21	1.61 X10-1 D 5.584X10-3 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
3. E-2 M NA F	21	8.5 X10-2 D 2.94 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/ℓ or kg); W—molal; Y—atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values—Continued

	Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1. E-1 M	NA F	21	4.15 X10-2 D 1.439X10-3 M	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T M	L
1. E-1 M	NA F	21	4.2 X10-2 D 1.45 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
3. E-1 M	NA F	21	2.0 X10-2 D 6.93 X10-4 M	BC	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	L
1. E-2 M	NA I	21	1.62 X10-1 D 5.619X10-3 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
3. E-2 M	NA I	21	9.0 X10-2 D 3.12 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	1
1. E-1 M	NA I	21	4.0 X10-2 D 1.38 X10-3 M	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T M	L
1. E-1 M	NA I	21	4.0 X10-2 D 1.38 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
3. E-1 M	NA I	21	2.3 X10-2 D 7.97 X10-4 M	BC	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	L
4. E-2 K	NA NO3	20	2.43 X10-3 M	BB	SURFACE TENSION LOG PLOT	V VO	61026	TL	L
1. E-2 M	NA NO3	35	5.7 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
1.55 E-3 M	NA4 P207 PYRO	26	4.55 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
5.55 E-3 M	NA4 P207 PYRO	26	3.32 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.87 E-2 M	NA4 P207 PYRO	26	1.86 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
4.13 E-2 M	NA4 P207 PYRO	26	1.24 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
6.02 E-2 M	NA4 P207 PYRO	26	1.06 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3.48 E-3 M	NA2 S04	26	4.54 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
6.87 E-3 M	NA2 S04	26	3.58 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.18 E-2 M	NA2 S04	26	3.12 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.81 E-2 M	NA2 S04	26	2.40 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3.03 E-2 M	NA2 S04	26	1.97 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
4.00 E-2 M	NA2 S04	26	1.74 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
8.36 E-2 M	NA2 S04	26	1.36 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.44 E-1 M	NA2 S04	26	9.98 X10-4 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
5.68 E-3 N	NA2 S04	40	5.80 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
8.14 E-3 N	NA2 S04	40	5.50 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.19 E-2 N	NA2 S04	40	4.70 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.70 E-2 N	NA2 S04	40	4.05 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.32 E-2 N	NA2 S04	40	3.65 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
3.10 E-2 N	NA2 S04	40	3.10 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
3.82 E-2 N	NA2 S04	40	2.75 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
5.14 E-2 N	NA2 S04	40	2.40 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2. E 2 I	NA5 P3010 TRIPOLY	60	1.22 X10-1 D 4.231X10-3 M	DC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T M	L
2.22 E 1 Q	PENTADECANOL V.BR*	25	1.76 X10-1 D 6.104X10-3 M	CB	UNSPECIFIED CONDUCTANCE	SCHI FOWK	57014	T M	L
1. E-5 M	PINACYANOL CL (DYE)	RM	1.93 X10-1 D 6.694X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	MUKE MYSE	55015	G M	L
1. E-5 M	PINACYANOL CL (DYE)	RM	2.01 X10-1 D 6.971X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	MUKE MYSE	55015	G M	L
4. E-5 M	PINACYANOL CL (DYE)	RM	2.03 X10-1 D 7.041X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	MUKE MYSE	55015	G M	L
4. E-5 M	PINACYANOL CL (DYE)	RM	2.10 X10-1 D 7.284X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	MUKE MYSE	55015	G M	L
1. E-4 M	PINACYANOL CL (DYE)	RM	2.15 X10-1 D 7.457X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	MUKE MYSE	55015	G M	L
1. E-4 M	PINACYANOL CL (DYE)	RM	2.29 X10-1 D 7.943X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	MUKE MYSE	55015	G M	L
2. E-6 M	PINACYANOL CL (DYE)	RM	1.84 X10-1 D 6.382X10-3 M	BG	FOTOMTR SPCTR CHNCE PNCN	MUKE MYSE	55015	G M	L
2. E-6 M	PINACYANOL CL (DYE)	RM	1.91 X10-1 D 6.625X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	MUKE MYSE	55015	G M	L
5.03 E 0 H	PROPANOL-1	00.5	4.7 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.03 E 0 H	PROPANOL-1	10.5	4.0 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.03 E 0 H	PROPANOL-1	25.2	3.8 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
9.21 E 0 H	PROPANOL-1	25.2	1.31 X10-3 M	BG	AVER COND BEGINING MAXIM	FLOC UBBE	53008	G	L
1.339E 1 H	PROPANOL-1	25.2	6.0 X10-4 M	BG	AVER COND BEGINING MAXIM	FLOC UBBE	53008	G	L
1.914E 1 H	PROPANOL-1	25.2	5.0 X10-4 M	BG	AVER COND BEGINING MAXIM	FLOC UBBE	53008	G	L
5.03 E 0 H	PROPANOL-1	33.5	4.1 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.03 E 0 H	PROPANOL-1	40.1	4.4 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.03 E 0 H	PROPANOL-1	50.0	5.1 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.71 E 0 H	PROPANOL-2	00.5	5.7 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.71 E 0 H	PROPANOL-2	10.5	4.9 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.71 E 0 H	PROPANOL-2	25.2	4.3 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	T	3
1.040E 1 H	PROPANOL-2	25.2	2.23 X10-3 M	BG	AVER COND BEGINING MAXIM	FLOC UBBE	53008	G	L
1.348E 1 H	PROPANOL-2	25.2	1.83 X10-3 M	BG	AVER COND BEGINING MAXIM	FLOC UBBE	53008	G	L
1.741E 1 H	PROPANOL-2	25.2	1.34 X10-3 M	BG	AVER COND BEGINING MAXIM	FLOC UBBE	53008	G	L
5.71 E 0 H	PROPANOL-2	33.5	4.5 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
5.71 E 0 H PROPANOL-2	40.1	5.0 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.71 E 0 H PROPANOL-2	50.0	5.7 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
5.06 E 0 H PROPIONIC ACID	25.2	4.3 X10-3 M	BB	AVER SP EQUIV COND	FLOC UBBE	53008	G	3
1.042E 1 H PROPIONIC ACID	25.2	4.0 X10-3 M	BD	AVER SP EQUIV COND	FLOC UBBE	53008	G	L
1.519E 1 H PROPIONIC ACID	25.2	5.5 X10-3 M	BE	AVER SP EQUIV COND	FLOC UBBE	53008	G	L
5.00 E 2 Y PRESSURE	25	9.09 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	HAMA	62036	G	3
1.000E 3 Y PRESSURE	25	9.45 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	HAMA	62036	G	3
1.500E 3 Y PRESSURE	25	9.36 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	HAMA	62036	G	3
2.000E 3 Y PRESSURE	25	9.09 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	HAMA	62036	G	3
1. E-3 N PHENYL (CH3)3 N I	40	4.77 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.4 E-3 N PHENYL (CH3)3 N I	40	4.35 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.9 E-3 N PHENYL (CH3)3 N I	40	3.8 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.5 E-3 N PHENYL (CH3)3 N I	40	3.47 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
3.3 E-3 N PHENYL (CH3)3 N I	40	3.1 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
4.4 E-3 N PHENYL (CH3)3 N I	40	2.8 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
7.5 E-3 N PHENYL (CH3)3 N I	40	2.47 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.3 E-2 N PHENYL (CH3)3 N I	40	2.15 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.86 E-2 N PHENYL (CH3)3 N I	40	1.97 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1. E-5 M RHODAMINE 6GPC	40	6.7 X10-3 M	CG	FOTOMTR SPCTR CHNGE RHD6	MEGU KOND	56020	T	L
5. E-6 M RHODAMINE 6GPC	40	6.6 X10-3 M	CG	FOTOMTR SPCTR CHNGE RHD6	MEGU KOND	56020	T	L
5. E 0 D SUCROSE	25	7.1 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	NAKA KAWA	64034	G	3
1.0 E 1 D SUCROSE	25	6.1 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	NAKA KAWA	64034	G	L
2.0 E 1 D SUCROSE	25	5.5 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	NAKA KAWA	64034	G	L
3.0 E 1 D SUCROSE	25	5.1 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	NAKA KAWA	64034	G	L
5. E-2 P TRIBUTYL PHOSPHATE	24.7	1.3 X10-1 P	HC	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
2.0 E-1 P TRIBUTYL PHOSPHATE	24.7	1.8 X10-1 P	HC	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
4.0 E-1 P TRIBUTYL PHOSPHATE	24.7	1.6 X10-1 P	HC	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
1.2 E-3 N (CH3)4 N I	40	6.15 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
2.85 E-3 N (CH3)4 N I	40	5.47 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
4.7 E-3 N (CH3)4 N I	40	4.9 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
7.7 E-3 N (CH3)4 N I	40	4.1 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
1.3 E-2 N (CH3)4 N I	40	3.3 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	GODD HARV	53012	L	L
3. E 0 M UREA	10	1.06 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	10	1.41 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
1. E 0 M UREA	25	7.4 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
2. E 0 M UREA	25	8.0 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E 0 M UREA	25	9. X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
4.5 E 0 M UREA	25	1.02 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	25	1.20 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
5. E-3 M UREA	26	6.2 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	G	L
2.5 E-2 M UREA	26	6.2 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	G	L
4.7 E-2 M UREA	26	6.2 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	G	L
1.22 E-1 M UREA	26	6.2 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	G	L
1.63 E-1 M UREA	26	6.1 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	G	L
2.35 E-1 M UREA	26	6.2 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	G	L
2.78 E-1 M UREA	26	6.1 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	G	L
4.70 E-1 M UREA	26	6.1 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	G	L
3.22 E 0 M UREA	26	5.72 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3. E 0 M UREA	45	9.1 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	45	1.15 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
0003				SEE CMPD NMBR IN ADDITV	SHED JAKO	63001		X
1.078E 1 C 0003	25.0	8.32 X10-3 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	3
2.006E 1 C 0003	25.0	8.54 X10-3 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	3
2.025E 1 C 0003	25.0	8.54 X10-3 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	3
3.478E 1 C 0003	25.0	9.88 X10-3 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	3
4.912E 1 C 0003	25.0	1.115X10-2 M	CA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	3
5.998E 1 C 0003	25.0	1.281X10-2 M	BA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	2
7.100E 1 C 0003	25.0	1.498X10-2 M	BA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	2
8.466E 1 C 0003	25.0	1.91 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	2
9.495E 1 C 0003	25.0	2.65 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	MYSE OTTE	61017	T	2
E 0 0004	50			GRAPH DATA NOT RETRIEVED	LANG	53005		R
1.25 E 1 C 0004	RM	5.11 X10-3 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
2.5 E 1 C 0004	RM	3.88 X10-3 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
5.0 E 1 C 0004	RM	2.62 X10-3 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
0005	50			SEE CMPD NMBR IN ADDITV	LANG	53005		X
E 0 0005	50			GRAPH DATA NOT RETRIEVED	LANG	53005		R
2. E 0 C 0024	70	5.7 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5. E 0 C 0024	70	5.3 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1.0 E 1 N 0024	70	4.9 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2.5 E 1 C 0024	70	4.0 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5.0 E 1 C 0024	70	3.4 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
7.5 E 1 C 0024	70	3.1 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
E 0 0064	50			GRAPH DATA NOT RETRIEVED	LANG	53005		R
1.25 E 1 C 0091	UNK	6.8 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
2.98 E 1 C 0091	UNK	7.8 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values—Continued

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
3.74 E 1 C 0091	UNK	8.3 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
4.97 E 1 C 0091	UNK	9.4 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
6.53 E 1 C 0091	UNK	1.32 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
7.27 E 1 C 0091	UNK	1.59 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
7.84 E 1 C 0091	UNK	1.82 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
8.27 E 1 C 0091	UNK	1.91 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
3.80 E 1 C 0092	25	6.4 X10-3 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
6.45 E 1 C 0092	25	6.2 X10-3 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
1.48 E 1 C 0092	UNK	6.1 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
2.07 E 1 C 0092	UNK	6.1 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
3.34 E 1 C 0092	UNK	6.2 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
4.54 E 1 C 0092	UNK	6.2 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
5.69 E 1 C 0092	UNK	6.3 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
6.89 E 1 C 0092	UNK	6.4 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
8.41 E 1 C 0092	UNK	6.5 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
9.30 E 1 C 0092	UNK	6.4 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
0115				SEE CMPD NMBR IN ADDITV	SCHI MANN	66001		X
0116				SEE CMPD NMBR IN ADDITV	SCHI MANN	66001		X
0205				SEE CMPD NMBR IN ADDITV	KURI NAKA	62010		X
0325				SEE CMPD NMBR IN ADDITV	SCHI MANN	66001		X
0327				SEE CMPD NMBR IN ADDITV	SCHI MANN	66001		X
0417				SEE CMPD NMBR IN ADDITV	KLEV RAIS	54010		X
7. E-3 M PENTANOL-1	UNK	4. X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-3 N K OH								
2.5 E-2 M PENTANOL-1	UNK	2.5 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-3 N K OH								
9. E-3 M H CL	25	3.7 X10-3 M	CC	SPECFC CONDCTNCE GRAPH	JAME PETH	60020	T	L
1. E-3 M NA CL								
2. E-1 IONIC STRENGTH	25	3. X10-2 D	HG	REACTN RATE SULUBILIZATE	TONG REEV	65030	T	L
1.01 E 1 PH OF SOLUTION								
5. E 1 E N-HEPTANE	UNK	4.5 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-3 N K OH								
1. E-1 K NA ION	UNK	1.45 X10-3 M	BB	SURFACE TENSION LOG PLOT	ROE BRAS	54013	T	L
6.5 E 0 PH OF SOLUTION								
9.25 E-3 M NA CL	RM	5.1 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
3.1 E-3 M K CL								
1.13 E-2 M NA CL	RM	4.8 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
4.9 E-3 M K CL								
2.06 E-2 M NA CL	RM	3.6 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
7.75 E-3 M K CL								
2.38 E-2 M NA CL	RM	3.8 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
2.4 E-3 M K CL								
4.44 E-2 M NA CL	RM	3.3 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
3.2 E-3 M K CL								
4.94 E-2 M NA CL	RM	2.9 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	T	L
4.8 E-3 M K CL								
2.5 E-3 M NA CL	RM	7.1 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	G	L
2.7 E-2 M LI CL								
1.2 E-2 M NA CL	RM	7.1 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	G	L
1.8 E-2 M LI CL								
1.6 E-2 M NA CL	RM	7.0 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	G	L
1.4 E-2 M LI CL								
2.16 E-2 M NA CL	RM	5.8 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	G	L
8.4 E-3 M LI CL								
2.52 E-2 M NA CL	RM	5.3 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	G	L
4.8 E-3 M LI CL								
2.75 E-2 M NA CL	RM	3.8 X10-3 M	CG	VISUAL FLUOR CHNGE RHD6	PRIN HERM	56002	G	L
2.5 E-3 M LI CL								
3. E-3 M OCTANOL-1	UNK	2.5 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
E-3 N K OH								
5. E-3 M OCTANOL-1	UNK	1.5 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-3 N K OH								
7. E-3 M OCTANOL-1	UNK	6. X10-4 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-3 N K OH								
2.5 E-2 M PENTAMINE	UNK	1.8 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-3 N K OH								
558 ENTRIES FOR COMPOUND								
COMPOUND NO = 2 MOL WGT - 232.2 SODIUM OCTYL 1 SULFATE								
	10	1.421X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	15	1.367X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	20	1.33 X10-1 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	3
	20	1.337X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C.	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	21	2.96 X10 0 D 1.274X10-1 M	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T M	L
	21	3.10 X10 0 D 1.335X10-1 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
	25	7. X10-2 N	CD	SPECFC CONDCTNCE GRAPH	HAFF PICC	42003	T	L
	25	1.3 X10-1 N	CC	UNSPECIFIED CONDUCTANCE	HAFF PICC	42003	T	L
	25	1.303X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	25	3.0 X10 0 D 1.29 X10-1 M	BD	TURBIDITY PLT LITE SCATR	PRIN HERM	56011	T M	L
	30.0	1.30 X10-1 M	CB	VELOCITY OF SOUND	SHIG	65022	T	3
	30	1.318X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	35	1.342X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	40	1.363X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	40.0	1.36 X10-1 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
	45	1.381X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	50	9.8 X10-2 M	BB	INTERFACIAL TENSION LOGM	KLIN LANG	57022	T	L
	50	1.434X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	55	1.463X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	3
	UNK	2.30 X10 1 D 9.905X10-1 M	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
5. E-2 M NA CL	20	1.12 X10-1 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
1.0 E-1 M NA CL	20	9.75 X10-2 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
2.5 E-1 M NA CL	20	7.08 X10-2 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
5.0 E-1 M NA CL	20	5.01 X10-2 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
1. E-2 M NA CL	21	2.90 X10 0 D 1.248X10-1 M	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T M	L
3. E-2 M NA CL	21	2.70 X10 0 D 1.162X10-1 M	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T M	L
3. E-2 M NA CL	21	2.80 X10 0 D 1.205X10-1 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
1. E-1 M NA CL	21	2.37 X10 0 D 1.020X10-1 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
1. E-1 M NA CL	21	2.21 X10 0 D 9.517X10-2 M	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T M	L
3. E-1 M NA CL	21	1.49 X10 0 D 6.416X10-2 M	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T M	L
3. E-1 M NA CL	21	1.60 X10 0 D 6.890X10-2 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
1. E 0 M NA CL	21	8.0 X10-1 D 3.44 X10-2 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	3
32 ENTRIES FOR COMPOUND								
COMPOUND NO = 3 MOL WGT = 260.3 SODIUM DECYL 1 SULFATE								
	61005			VALUES FRM REF IN CMC	MYSE OTTE	61017		R
	0	3.88 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	5	3.64 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	10	3.48 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	D
	10	3.50 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	D
	15	3.41 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	15	3.39 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	20	3.35 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	20	3.31 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	21	7.8 X10-1 D 2.99 X10-2 M	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T M	L
	21	7.9 X10-1 D 3.03 X10-2 M	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T M	L
	23	3.1 X10-2 N	CC	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	L
	25	3.1 X10-2 N	CC	UNSPECIFIED CONDUCTANCE	HAFF PICC	42003	T	L
	25	3.32 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	25.0	3.26 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	MYSE KAPA	61005	T	1
	25.0	3.35 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	MYSE KAPA	61005	T	1
	25	3.27 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	25	8.4 X10-1 D 3.22 X10-2 M	DB	TURBIDITY PLT LITE SCATR	PRIN HERM	56011	T M	L
	25	8.5 X10-1 D 3.26 X10-2 M	DB	REFRACTIVE INDEX	PRIN HERM	56011	T M	L
	25	3.1 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25.0	3.32 X10-2 M	BA	SPECFC CONDCTNCE EQUATNS	MUKE KAPA	66002	T	1
	30	3.31 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	30	3.26 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	35	3.27 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	35	3.35 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	40	3.32 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	40	3.41 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	1
	45	3.38 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	D

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	45	3.49 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	D
	50	3.2 X10-2 M	BB	INTERFACIAL TENSION LOGM	KLIN LANG	57022	T	L
	50	3.47 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	D
	50	3.4 X10-2 M	BB	SURFACE TENSION LOG PLOT	KLIN LANG	57022	T	L
	50	3.64 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	D
	55	3.59 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	D
	55	3.78 X10-2 W	BA	SPECFC CONDCTNCE EQUATNS	GODD BENS	57011	L	D
	60	3.73 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	65	3.88 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	90	4.39 X10-2 W	CA	EQUIV CONDCTNCE GRAPH	KURZ	62040	T	L
	UNK	3.0 X10-2 M	BC	ULTRAFILTRATION	HUTC	59018	K	L
	RM	3.37 X10-2 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	L
	UNK	6.8 X10-1 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		2.61 X10-2 M					M	
1.00 E 2 A DEUTERIUM OXIDE	25.0	3.25 X10-2 M	BA	SPECFC CONDCTNCE EQUATNS	MUKE KAPA	66002	T	2
6.6 E 1 I HEXANOL-1	UNK	2.5 X10-2 M	BC	ULTRAFILTRATION	HUTC	59018	K	L
1.16 E 2 I HEXANOL-1	UNK	2.2 X10-2 M	BC	ULTRAFILTRATION	HUTC	59018	K	L
1.96 E 2 I HEXANOL-1	UNK	1.8 X10-2 M	BC	ULTRAFILTRATION	HUTC	59018	K	L
1.0 E-1 M NA CL	20	1.41 X10-2 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
2.5 E-1 M NA CL	20	7.41 X10-3 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
5.0 E-1 M NA CL	20	4.42 X10-3 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
1. E-2 M NA CL	21	6.9 X10-1 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
		2.65 X10-2 M					M	
1. E-2 M NA CL	21	7.0 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	L
		2.68 X10-2 M					M	
3. E-2 M NA CL	21	5.4 X10-1 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
		2.07 X10-2 M					M	
3. E-2 M NA CL	21	5.6 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	L
		2.15 X10-2 M					M	
1. E-1 M NA CL	21	3.5 X10-1 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
		1.34 X10-2 M					M	
1. E-1 M NA CL	21	3.45 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	L
		1.325X10-2 M					M	
3. E-1 M NA CL	21	1.8 X10-1 D	BC	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
		6.91 X10-3 M					M	
3. E-1 M NA CL	21	1.8 X10-1 D	BC	TURBIDITY PLT LITE SCATR	HUIS	64047	T	L
		6.91 X10-3 M					M	
1.00 E-2 M NA CL	25.0	3.02 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	MYSE KAPA	61005	L	3
7.5 E-2 M NA CL	25	4.2 X10-1 D	DC	TURBIDITY PLT LITE SCATR	PRIN HERM	56011	T	L
		1.61 X10-2 M					M	
1.00 E-1 M NA CL	25.0	1.51 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	MYSE KAPA	61005	L	3
3. E-1 M NA CL	25.0	7.3 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MYSE MYSE	65018	T	L
3.00 E-1 M NA CL	25.0	8.0 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MYSE KAPA	61005	L	L
4. E-1 M NA CL	25.0	6.5 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MYSE MYSE	65018	T	L
6. E-1 M NA CL	25.0	4.6 X10-3 M	BC	SPECFC CONDCTNCE GRAPH	MYSE MYSE	65018	T	L
1.0 E 0 M NA CL	25.0	2.77 X10-3 M	BB	SPECFC CONDCTNCE GRAPH	MYSE MYSE	65018	T	3
1.2 E 0 M NA CL	25	4. X10-2 D	DD	TURBIDITY PLT LITE SCATR	PRIN HERM	56011	T	L
		1.5 X10-3 M					M	
4.98 E-2 W NA CL04	90	3.66 X10-2 W	CB	UNSPECIFIED CONDUCTANCE	KURZ	62040	T	L
9.89 E-2 W NA CL04	90	2.94 X10-2 W	CB	UNSPECIFIED CONDUCTANCE	KURZ	62040	T	L
2.002E-1 W NA CL04	90	2.34 X10-2 W	CB	UNSPECIFIED CONDUCTANCE	KURZ	62040	T	L
1. E 0 M UREA	25	3.2 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
2. E 0 M UREA	25	3.5 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E 0 M UREA	25	3.7 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
4.5 E 0 M UREA	25	4.3 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	25	5.0 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
0001				SEE CMPD NMBR IN ADDITV	MYSE OTTE	61017		X
1.25 E 1 C 0001	RM	2.02 X10-2 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
2.5 E 1 C 0001	RM	1.56 X10-2 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
5.0 E 1 C 0001	RM	1.08 X10-2 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	3
7.5 E 1 C 0001	RM	8.55 X10-3 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	L
5.00 E 1 C 0004	25	3.03 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
5.00 E 1 C 0004	30	3.09 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
5.00 E 1 C 0004	35	3.18 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
5.00 E 1 C 0004	40	3.31 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
5.00 E 1 C 0004	45	3.47 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	50	3.66 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	55	3.87 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	60	4.16 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	65	4.51 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	70	4.90 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
5.00 E 1 C 0004	75	5.35 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
89 ENTRIES FOR COMPOUND								
COMPOUND NO = 4 MOL WGT - 316.4 SODIUM TETRADECYL 1 SULFATE								
		53005		VALUES FRM REF IN CMC	KLIN LANG	57022		R
	21.5	2.21 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	FLOC UBBE	53008	K	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	25.2	2.08 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	FLOC UBBE	53008	K	L
	25	1.4 X10-3 M	CD	SPECFC CONDCTNCE GRAPH	BENT SPAR	66038	T	L
	25	2.05 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	30.0	2.2 X10-3 M	CC	VELOCITY OF SOUND	SHIG	65022	T	L
	30	2.08 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	35	2.13 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	40	2.4 X10-3 M	CC	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	40.1	2.07 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	FLOC UBBE	53008	K	L
	40	2.21 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	1
	40	2.21 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	1
	40.0	2.40 X10-3 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
	45	2.31 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	50	2.1 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	LANG	53005	T	L
	50	2.2 X10-3 M	BB	INTERFACIAL TENSION LOGM	KLIN LANG	57022	T	L
	50	2.0 X10-3 M	BB	SURFACE TENSION LOG PLOT	KLIN LANG	57022	T	L
	50	2.54 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
	50	2.43 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	50	6. X10-2 D	BD	TURBIDITY PLT LITE SCATR	PRIN HERM	56011	T	L
		1.8 X10-3 M					M	
	50	1.32 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	55	2.58 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	60	2.80 X10-3 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	60	2.77 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	65	2.99 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	70	3.22 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	75	3.50 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	RM	1.66 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	WINS	48008	T	L
	RM	1.83 X10-3 M	BB	ELECTROMOTIVE FORCE	SHED JAKO	63001	T	L
	UNK	5.0 X10-2 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		1.58 X10-3 M					M	
5. E 0 H DIOXANE	40	2.4 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.0 E 1 H DIOXANE	40	2.9 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.5 E 1 H DIOXANE	40	3.8 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.0 E 1 H DIOXANE	40	5.2 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.5 E 1 H DIOXANE	40	7.5 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
3.0 E 1 H DIOXANE	40	1.28 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
3.5 E 1 H DIOXANE	40	1.77 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1. E-2 N NA CL	23	1.9 X10-3 N	CC	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	L
. E 0 NA CL	50			THEORETICALLY ESTIMATED	PRIN HERM	56011		R
0001				SEE CMPD NMBR IN ADDITV	SHED JAKO	63001		X
E 0 0001	50			GRAPH DATA NOT RETRIEVED	LANG	53005		R
0003				SEE CMPD NMBR IN ADDITV	FLOC	61007		X
42 ENTRIES FOR COMPOUND								

COMPOUND NO = 5 MOL WGT – 344.4 SODIUM HEXADECYL 1 SULFATE

	53005			VALUES FRM REF IN CMC	KLIN LANG	57022		R
	25	2.1 X10-4 M	CD	SPECFC CONDCTNCE GRAPH	BENT SPAR	66038	T	L
	30	4. X10-4 M	CD	SURFACE TENSION LOG PLOT	WEIL BIST	58003	T	L
	30	4.1 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
	35	2. X10-4 M	XE	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
	35.8	4.4 X10-4 M	CG	FOTOMTR SPCTR CHNGE PNCN	CORR KLEV	46010	T	L
	40	5.2 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
	40.0	5.8 X10-4 M	BC	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
	45	6.0 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	50	5.4 X10-4 M	CC	EQUIV CONDCTNCE GRAPH	LANG	53005	T	L
	50	6.6 X10-4 M	BB	SURFACE TENSION LOG PLOT	KLIN LANG	57022	T	L
	50	6.5 X10-4 M	BB	INTERFACIAL TENSION LOGM	KLIN LANG	57022	T	L
	50	6.65 X10-4 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
	60	2. X10-2 D	BE	TURBIDITY PLT LITE SCATR	PRIN HERM	56011	T	L
		5.8 X10-4 M					M	
	50	4.2 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	50	4.2 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
	60	8. X10-4 M	XE	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
	90	1.0 X10-3 M	XD	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
	UNK	2.0 X10-2 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		5.80 X10-4 M					M	
5. E 0 H DIOXANE	40	1.27 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.0 E 1 H DIOXANE	40	2.0 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
1.5 E 1 H DIOXANE	40	2.8 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.0 E 1 H DIOXANE	40	3.64 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
2.5 E 1 H DIOXANE	40	4.3 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
3.0 E 1 H DIOXANE	40	5.0 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	SHIR MATU	65020	L	3
. E 0 NA CL	50			GRAPH DATA NOT RETRIEVED	LANG	53005		R
. E 0 NA CL	50			THEORETICALLY ESTIMATED	PRIN HERM	56011		R
1. E 1 I NA CL	50	5.4 X10-4 M	CC	EQUIV CONDCTNCE GRAPH	LANG	53005	T	L

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2. E l I NA CL	50	5.35 X10-4 M	CB	EQUIV CONDCTNCE GRAPH	LANG	53005	T	L
3. E 0 M UREA	45	6.4 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	45	7.9 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
E 0 0001	50			GRAPH DATA NOT RETRIEVED	LANG	53005		R
1. E 1 0001	50	6.0 X10-4 M	CC	EQUIV CONDCTNCE GRAPH	LANG	53005	T	L
1. E 1 0001	50	6.5 X10-4 M	CC	EQUIV CONDCTNCE GRAPH	LANG	53005	T	L
34 ENTRIES FOR COMPOUND								
COMPOUND NO = 6 MOL WGT – 260.2 SODIUM ALPHA SULFOPELARGONIC ACID								
	UNK	1.00 X10 0 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	60008	T	L
		3.843X10-2 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 7 MOL WGT – 372.4 SODIUM OCTYL ALPHA SULFOPELARGONATE								
	UNK	2.1 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
	UNK	8. X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	60008	T	L
		2.1 X10-3 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 8 MOL WGT – 484.6 DISODIUM ALPHA SULFOPHENYLSTEARATE								
	UNK	5.6 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	60008	T	L
		1.15 X10-3 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 9 MOL WGT – 386.5 SODIUM ALPHA SULFOSTEARIC ACID								
	25			QUESTIONABLE CRITERION	WEIL STIR	60008		R
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 10 MOL WGT – 408.5 DISODIUM ALPHA SULFOSTEARATE								
	25			QUESTIONABLE CRITERION	WEIL STIR	60008		R
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 11 MOL WGT – 462.6 SODIUM ALPHA SULFO PHENYL STEARIC ACID								
	UNK	5. X10-3 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	60008	T	L
		1.0 X10-4 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 12 MOL WGT – 455.4 SODIUM 9,10 DICHLORO ALPHA SULFOSTEARIC ACID								
	UNK	1.7 X10-2 D	FG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	60008	T	L
		3.73 X10-4 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 13 MOL WGT – 477.3 DISODIUM 9,10 DICHLORO ALPHA SULFOSTEARATE								
	UNK	1.5 X10-1 D	FG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	60008	T	L
		3.14 X10-3 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 14 MOL WGT – 440.5 DISODIUM 9,10 DIHYDROXY ALPHA SULFOSTEARATE								
	UNK	5.9 X10-1 D	FG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	60008	T	L
		1.33 X10-2 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 15 MOL WGT – 260.3 SODIUM DECYL 2 SULFATE								
	10	5.15 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	15	4.92 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	20	4.70 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	25	4.56 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	30	4.52 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	35	4.50 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	40	4.50 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	40.0	4.95 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
	45	4.52 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	50	4.57 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	55	4.65 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	60	4.79 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	65	4.95 X10-2 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
13 ENTRIES FOR COMPOUND								
COMPOUND NO = 16 MOL WGT - 316.4 SODIUM TETRADECYL 2 SULFATE								
	25	3.27 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	30	3.28 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	35	3.31 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	2
	40	3.3 X10-3 M	CC	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	40.0	3.30 X10-3 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
	40	3.38 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	45	3.48 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	50	3.64 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	55	3.83 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	60	3.75 X10-3 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	60	4.04 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	65	4.29 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	70	4.60 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	75	5.00 X10-3 M	BA	AVER SP EQUIV COND	FLOC	61007	L	3
	RM	3.26 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	WINS	48008	T	L
15 ENTRIES FOR COMPOUND								
COMPOUND NO = 17 MOL WGT - 316.4 SODIUM TETRADECYL 4 SULFATE								
	25	5.12 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	30	5.05 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	35	5.04 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	40	5.2 X10-3 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	40.0	5.15 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
	40	5.12 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	45	5.23 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	50	5.38 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	55	5.57 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	60	6.10 X10-3 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	60	5.85 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	65	6.21 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	70	6.62 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	75	7.11 X10-3 M	CA	AVER SP EQUIV COND	FLOC	61007	L	3
	RM	4.76 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	WINS	48008	T	L
15 ENTRIES FOR COMPOUND								
COMPOUND NO = 18 MOL WGT - 292.4 OCTYL BETA D GLUCOSIDE								
	20	2.6 X10-2 W	BD	SURFACE TENSION LOG PLOT	BURY BROW	52011	T	L
	25	61008		VALUES FRM REF IN CMC	SHIN YAMA	59013		R
	25	2.5 X10-2 M	BB	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	3
	30	2.3 X10-2 W	BC	SURFACE TENSION LOG PLOT	BURY BROW	52011	T	L
9.3 E-1 N CA CL2	25	1.7 X10-2 M	BB	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	L
4.7 E-1 N NA CL	25	1.7 X10-2 M	BB	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	L
9.3 E-1 N NA CL	25	1.2 X10-2 M	BC	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	L
9.3 E-1 N NA2 S04	25	9. X10-3 M	BC	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	L
8.9 E 0 C 0019	25	1.25 X10-2 M	BB	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	L
8.4 E-1 C 0020	25	1.5 X10-2 M	BC	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 19 MOL WGT - 320.4 DECYL BETA D GLUCOSIDE								
	25	2.2 X10-3 M	BB	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	3
0018				SEE CMPD NMBR IN ADDITV	SHIN YAMA	61008		X
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 20 MOL WGT - 348.5 DODECYL BETA D GLUCOSIDE								
	25	1.9 X10-4 M	BB	SURFACE TENSION LOG PLOT	SHIN YAMA	61008	T	3
0018				SEE CMPD NMBR IN ADDITV	SHIN YAMA	61008		X
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 21 MOL WGT - 229.4 DIMETHYL DODECYL AMINE OXIDE								
	62005			VALUES FRM REF IN CMC	HERR	64006		R
	01.0	2.84 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T	L
	25	2. X10-3 M	BE	HEAT OF DILUTION	BENJ	64016	L	L
	26.5	4.3 X10-1 P	BC	HEAT OF DILUTION	BENJ	66012	L	L
		1.87 X10-2 S					M	
	27.0	2.10 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T	3
	30	4.5 X10-2 P	BC	DENSITY	BENJ	66040	T	L
		1.96 X10-3 S					M	

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	40.0	1.83 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T	L
	50.0	1.75 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T	L
2.5 E 0 B BUTANOL-1	26.5	2.2 X10-1 P 9.59 X10-3 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
5. E 0 B BUTANOL-1	26.5	1.2 X10-1 P 5.23 X10-3 S	BD	HEAT OF DILUTION	BENJ	66012	L M	L
7. E 0 B BUTANOL-1	26.5	6. X10-2 P 2.6 X10-3 S	BE	HEAT OF DILUTION	BENJ	66012	L M	L
5. E 0 B ETHANOL	26.5	3.9 X10-1 P 1.70 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
1.0 E 1 B ETHANOL	26.5	3.4 X10-1 P 1.48 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
1.0 E 1 B METHANOL	26.5	4.5 X10-1 P 1.96 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
1.5 E 1 B METHANOL	26.5	4.0 X10-1 P 1.74 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
2. E-1 M NA CL	27	3.4 X10-2 D 1.48 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T M	L
5. E 0 B PROPANOL-1	26.5	2.8 X10-1 P 1.22 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
1.0 E 1 B PROPANOL-1	26.5	1.7 X10-1 P 7.41 X10-3 S	BD	HEAT OF DILUTION	BENJ	66012	L M	L
2.0 E 1 B PROPANOL-1	26.5	1.1 X10-1 P 4.79 X10-3 S	BD	HEAT OF DILUTION	BENJ	66012	L M	L
2. E 0 M UREA	26.5	5.4 X10-1 P 2.35 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
4. E 0 M UREA	26.5	6.9 X10-1 P 3.00 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
6.5 E 0 M UREA	26.5	1.04 X10 0 P 4.533X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
1. E 0 M GUANIDINIUM CL 7.5 E 0 PH OF SOLUTION	26.5	4.8 X10-1 P 2.09 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
2. E 0 M GUANIDINIUM CL 7.5 E 0 PH OF SOLUTION	26.5	6.2 X10-1 P 2.70 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
3. E 0 M GUANIDINIUM CL 7.5 E 0 PH OF SOLUTION	26.5	7.8 X10-1 P 3.40 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
4. E 0 M GUANIDINIUM CL 7.5 E 0 PH OF SOLUTION	26.5	8.8 X10-1 P 3.83 X10-2 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
2. E 0 N GUANIDINIUM CO3	26.5	1.9 X10-1 P 8.28 X10-3 S	BC	HEAT OF DILUTION	BENJ	66012	L M	L
1. E-1 M NA CL 2.0 E 0 PH OF SOLUTION	25	3.50 X10-3 M	BC	FOTOMTR SOLUBLZTN YLOB	TOKI OHKI	66027	G	L
1. E-1 M NA CL 3.2 E 0 PH OF SOLUTION	25	3.10 X10-3 M	BC	FOTOMTR SOLUBLZTN YLOB	TOKI OHKI	66027	G	L
1. E-1 M NA CL 4.2 E 0 PH OF SOLUTION	25	1.95 X10-3 M	BC	FOTOMTR SOLUBLZTN YLOB	TOKI OHKI	66027	G	L
1. E-1 M NA CL 5.1 E 0 PH OF SOLUTION	25	1.25 X10-3 M	BC	FOTOMTR SOLUBLZTN YLOB	TOKI OHKI	66027	G	L
1. E-1 M NA CL 6.1 E 0 PH OF SOLUTION	25	1.01 X10-3 M	BC	FOTOMTR SOLUBLZTN YLOB	TOKI OHKI	66027	G	L
1. E-1 M NA CL 7.1 E 0 PH OF SOLUTION	25	1.00 X10-3 M	BC	FOTOMTR SOLUBLZTN YLOB	TOKI OHKI	66027	G	L
33 ENTRIES FOR COMPOUND								
COMPOUND NO = 22 MOL WGT = 265.9 DIMETHYL DODECYL AMINE OXIDE HYDROCHLORIDE								
		62005		VALUES FRM REF IN CMC	HERR	64006		R
1. E-2 M H CL	25	5. X10-3 M	BE	HEAT OF DILUTION	BENJ	64016	L	L
1. E-3 M H CL	27	1.9 X10-1 D 7.14 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T M	3
1. E-2 M H CL	27	1.8 X10-1 D 6.76 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T M	3
1. E-3 M H CL 2. E-2 M NA CL	27	3.4 X10-2 D 1.27 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T M	L
1. E-3 M H CL 1. E-1 M NA CL	27	4.8 X10-2 D 1.80 X10-3 M	BB	TURBIDITY PLT LITE SCATR	HERR	62005	T M	L
6 ENTRIES FOR COMPOUND								
COMPOUND NO = 23 MOL WGT = 373.2 SILVER DODECYL 1 SULFATE								
	35	7.3 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	2
	55	8.4 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
1. E-2 M AG NO3	35	4.7 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
1. E-2 M NA NO3	35	5.4 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
4 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 24 MOL WGT = 570.8 CALCIUM DODECYL 1 SULFATE								
	54	1.3 X10-3 M	BC	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
	54	1.3 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	MIYA	60029	T	L
	70	3.4 X10-3 N	BB	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
	70	2.9 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1.0 E-4 N CA CL2	70	1.02 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
3.0 E-4 N CA CL2	70	7.7 X10-4 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1. E-3 N CA CL2	70	2.6 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5. E-3 N CA CL2	70	2.15 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2.5 E-2 N CA CL2	70	1.45 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1. E-3 M NA CL	70	2.85 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
4. E-3 M NA CL	70	2.8 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1. E-2 M NA CL	70	2.7 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2. E-2 M NA CL	70	2.6 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
3. E-2 M NA CL	70	2.6 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5. E-2 M NA CL	70	2.4 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1.0 E-1 M NA CL	70	1.7 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
2.0 E-1 M NA CL	70	1.25 X10-3 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
5.0 E-1 M NA CL	70	7.3 X10-4 N	CG	VISUAL SPCTR CHNGE PNCN	LANG	51005	L	L
1. E-2 M NA NO3	70	3.3 X10-3 N	BB	SPECFC CONDCTNCE GRAPH	CORK GOOD	62006	T	3
0001	70			SEE CMPD NMBR IN ADDITV	LANG	51005		X
20 ENTRIES FOR COMPOUND								
COMPOUND NO = 25 MOL WGT = 288.3 SODIUM ETHYL ALPHA SULFOPELARGONATE								
	UNK	9.80 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 26 MOL WGT = 330.4 SODIUM AMYL ALPHA SULFOPELARGONATE								
	UNK	1.56 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	T	L
	UNK	1.60 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 27 MOL WGT = 344.4 SODIUM HEXYL ALPHA SULFOPELARGONATE								
	UNK	7.0 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 28 MOL WGT = 358.4 SODIUM HEPTYL ALPHA SULFOPELARGONATE								
	UNK	4.5 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 29 MOL WGT = 386.5 SODIUM NONYL ALPHA SULFOPELARGONATE								
	UNK	1.2 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 30 MOL WGT = 400.5 SODIUM DECYL ALPHA SULFOPELARGONATE								
	UNK	5. X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 31 MOL WGT = 372.4 SODIUM 2 OCTYL ALPHA SULFOPELARGONATE								
	UNK	3.6 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 32 MOL WGT = 372.4 SODIUM 2 ETHYLHEXYL ALPHA SULFOPELARGONATE								
	UNK	1.9 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 33 MOL WGT = 400.5 SODIUM /OXO/ DECYL ALPHA SULFOPELARGONATE								
	UNK	5. X10-4 M	HG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 34 MOL WGT = 428.6 SODIUM DODECYL ALPHA SULFOPELARGONATE								
	UNK	1. X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 35 MOL WGT = 574.3 SODIUM H/CF2CF2/3CH2 ALPHA SULFOPELARGONATE								
	UNK	2.4 X10-3 M	HG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source Evaluation
	RM	1.4 X10-2 D	CG	FOTOMTR SPCTR CHNGE PNCN	WEIL STIR	56008	T L
		3.75 X10-4 M					M
	RM	1.5 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	56008	T L
		4.02 X10-4 M					M
4 ENTRIES FOR COMPOUND							
COMPOUND NO = 37 MOL WGT - 193.7 DECYLAMMONIUM CHLORIDE							
	20	3.2 X10-2 M	CC	EQUIV CONDCTNCE GRAPH	RALS HOER	42002	P L
	25	4. X10-2 M	CE	REFRACTIVE INDEX	KLEV	48005	T L
	25	4.8 X10-2 M	XC	REFRACTIVE INDEX	KLEV	53010	T L
	25.0	5.40 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	HOYE GREE	57004	T L
	40	3.8 X10-2 M	CC	EQUIV CONDCTNCE GRAPH	RALS HOER	42002	P L
	60	3.8 X10-2 M	CC	EQUIV CONDCTNCE GRAPH	RALS HOER	42002	P L
	RM	4. X10-2 M	BD	PH OR HYDROLYSIS	VEIS HOER	60001	T L
7 ENTRIES FOR COMPOUND							
COMPOUND NO = 38 MOL WGT - 221.8 DODECYL AMMONIUM CHLORIDE							
		59016		VALUES FRM REF IN CMC	BOTR CRES	60024	R
		50008		VALUES FRM REF IN CMC	CORR HARK	46004	R
		47006		VALUES FRM REF IN CMC	CORR HARK	46005	R
		48016		VALUES FRM REF IN CMC	KOLT STRI	49005	R
	15	1.56 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	EGGE HARW	51006	T 3
	18.0	1.45 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	HOYE GREE	57004	T L
	20	1.5 X10-2 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T L
	20	1.56 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	EGGE HARW	51006	T L
	20	1.50 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P 2
	23.5	2.95 X10-1 D	BB	REFRACTIVE INDEX	KLEV	46012	T L
		1.330X10-2 M					M
	25	1.43 X10-2 M	BG	EQUIV COND 1ST DEVIATION	BROW GRIE	49014	T L
	25	1.46 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	P 1
	25	1.28 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T L
	25	1.52 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	EGGE HARW	51006	T L
	25	1.34 X10-2 W	BB	SPECFC CONDCTNCE GRAPH	CZER	65031	T L
	25.6	1.31 X10-2 M	CG	FOTOMTR SPCTR CHNGE INPX	KLEV	47004	T L
	25.0	1.34 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G L
	25	1.47 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P 1
	25.0	1.38 X10-2 M	CB	*SPECFC CONDCTNCE GRAPH*	HOYE GREE	57004	T L
	26	1.27 X10-2 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47006	T L
	26	1.36 X10-2 M	BG	VISUAL SPCTR CHNGE EOSN	CORR HARK	47006	T L
	26	1.30 X10-2 M	BG	VISUAL SPCTR CHNGE FL	CORR HARK	47006	T L
	26	1.24 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	47006	T L
	26	1.31 X10-2 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47010	T L
	26	1.31 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	47010	T L
	27	1.50 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	EGGE HARW	51006	T 3
	30	3.25 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T L
		1.456X10-2 M					M
	30	1.6 X10-2 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T L
	30	1.46 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS BROO	49013	T L
	30	1.65 X10-2 W	XB	VAPR PRESURE LOWERING	HUFF MCBA	51004	T L
	30	1.3 X10-2 M	CD	REFRACTIVE INDEX	KLEV	48005	T L
	30	1.4 X10-2 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T L
	30	1.47 X10-2 M	BB	DENSITY	CART ANAC	60005	K 1
	30	1.29 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	RALS HOER	46001	T L
	30	1.34 X10-2 M	CB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T L
	30	1.47 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K 1
	30	1.45 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	48021	K L
	30	1.44 X10-2 N	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T L
	30	1.50 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	EGGE HARW	51006	T 1
	30	1.48 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P 1
	30	1.34 X10-2 M	CB	FOTOMTR SOLUBLZTN AZBZ	KOLT STRI	49005	T L
	30	1.34 X10-2 M	CB	FOTOMTR SOLUBLZTN 0ROT	KOLT STRI	49005	T L
	30	1.48 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	GK 1
	35	1.36 X10-2 W	BB	SPECFC CONDCTNCE GRAPH	CZER	65031	T L
	35.8	1.25 X10-2 M	CG	FOTOMTR SPCTR CHNGE INPX	KLEV	47004	T L
	35.0	1.33 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	HOYE GREE	57004	T L
	40	1.49 X10-2 M	BA	*SPECFC CONDCTNCE GRAPH*	EGGE HARW	51006	T L
	40	1.50 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P 2
	45.0	1.21 X10-2 M	CG	FOTOMTR SPCTR CHNGE INPX	KLEV	47004	T L
	45	1.43 X10-2 W	BB	SPECFC CONDCTNCE GRAPH	CZER	65031	T L
	50	1.30 X10-2 M	HB	SPECFC CONDCTNCE GRAPH	MARO ELDE	54006	T L
	50	1.4 X10-2 W	XD	VAPR PRESURE LOWERING	HUFF MCBA	51004	T L
	50	1.34 X10-2 M	CB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T L
	50	1.65 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	EGGE HARW	51006	T L
	50	1.58 X10-2 M	BA	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P 3

A–mol %; B–vol % solvent; C–mol % surfactant; D–wt/vol %; E–% saturation; H–wt % solvent; I–mol % surfactant; K–normality counterions; M–molar; N–normal; P–wt %; Q–wt % surfactant; R–varied; S–mol/kg; T–wt % surfactant; U–mol/(l or kg); W–molal; Y–atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 36 MOL WGT = 372.4 SODIUM METHYL ALPHA SULFOPALMITATE								
	28	1.2 X10-2 D 3.22 X10-4 M	CD	SURFACE TENSION UNSPEC	WEIL STIR	56008	T M	L
	UNK	4. X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	STIR WEIL	62008	T	L
	50	1.37 X10-2 M	CB	FOTOMTR SOLUBLZTN OROT	KOLT STRI	49005	T	L
	50	1.34 X10-2 M	CB	FOTOMTR SOLUBLZTN AZBZ	KOLT STRI	49005	T	L
	55.0	1.20 X10-2 M	CG	FOTOMTR SPCTR CHNGE INPX	KLEV	47004	T	L
	55	1.50 X10-2 W	BB	SPECFC CONDCTNCE GRAPH	CZER	65031	T	L
	60	1.3 X10-2 M	CC	EQUIV CONDCTNCE GRAPH	RALS HOER	42002	T	L
	60	1.80 X10-2 M	BC	SPECFC CONDCTNCE GRAPH	EGGE HARW	51006	T	L
	60	1.71 X10-2 M	BB	SPECFC CONDCTNCE GRAPH	RALS EGGE	48027	P	3
	UNK	1.4 X10-2 M	CC	UNSPECIFIED CONDUCTANCE	BOTR CRES	59016	T	L
	UNK	1.4 X10-2 M	CD	ELECTROMOTIVE FORCE	BOTR CRES	59016	T	L
	RM	1.3 X10-2 M	BD	PH OR HYDROLYSIS	VEIS HOER	60001	T	L
	UNK	1.31 X10-2 M	CG	VISUAL SPCTR CHNGE DCFL	CORR HARK	46004	G	L
	UNK	1.4 X10-2 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
3.66 E 0 A	ACETONITRILE	30	1.61 X10-2 N	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	3
3.27 E 0 A	ACETONE	30	1.30 X10-2 N	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	3
7.06 E 0 A	ACETONE	30	1.51 X10-2 N	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	L
9.95 E 0 A	ACETONE	30	4.54 X10-2 N	BD	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	L
7.67 E-3 M	BA CL2	26	1.05 X10-2 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47010	T	L
1.27 E-2 M	BA CL2	26	8.66 X10-3 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
1.76 E-2 M	BA CL2	26	8.01 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	47010	T	L
2.19 E-2 M	BA CL2	26	7.48 X10-3 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47010	T	L
3.16 E-2 M	BA CL2	26	6.21 X10-3 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47010	T	L
3.45 E-2 M	BA CL2	26	5.89 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	47010	T	L
4.07 E-2 M	BA CL2	26	5.56 X10-3 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47010	T	L
2.5 E-3 N	BA CL2	30	1.36 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5. E-3 N	BA CL2	30	1.30 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1. E-2 N	BA CL2	30	1.13 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2. E-2 N	BA CL2	30	9.4 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1.00 E 2 E	BENZENE	30	1.12 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	48021	K	L
1.55 E-1 M	BUTANOL-1	25	9.03 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
3.42 E-1 M	BUTANOL-1	25	5.96 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
4.64 E-1 M	BUTANOL-1	25	4.06 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.5 E-3 N	CA ACETATE	30	1.40 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
5. E-3 N	CA ACETATE	30	1.28 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
1. E-2 N	CA ACETATE	30	1.09 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
2. E-2 N	CA ACETATE	30	9.2 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
2. E-2 N	CA FORMATE	30	9.4 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
1.00 E 2 E	CYCLOHEXANE	30	1.25 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	48021	K	L
3.7 E 0 H	DIOXANE	UNK	1.36 X10-2 M	CG	VISUAL SPCTR CHNGE DCFL	CORR HARK	46004	G	L
7.5 E 0 H	DIOXANE	UNK	1.42 X10-2 M	CG	VISUAL SPCTR CHNGE DCFL	CORR HARK	46004	G	L
1.63 E 1 H	DIOXANE	UNK	1.51 X10-2 M	CG	VISUAL SPCTR CHNGE DCFL	CORR HARK	46004	G	L
9.02 E-5 M	DECANOL-1	25	1.09 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.43 E-4 M	DECANOL-1	25	9.43 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.88 E-4 M	DECANOL-1	25	8.27 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.00 E-4 M	DECANOL-1	25	7.91 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.31 E-4 M	DECANOL-1	25	7.61 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
3.9 E 0 H	ETHYLENE GLYCOL	UNK	1.33 X10-2 M	CG	VISUAL SPCTR CHNGE DCFL	CORR HARK	46004	G	L
7.9 E 0 H	ETHYLENE GLYCOL	UNK	1.36 X10-2 M	CG	VISUAL SPCTR CHNGE DCFL	CORR HARK	46004	G	L
1.54 E 1 H	ETHYLENE GLYCOL	UNK	1.40 X10-2 M	CG	VISUAL SPCTR CHNGE DCFL	CORR HARK	46004	G	L
5.69 E-1 M	ETHANOL	25	1.26 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
8.68 E-1 M	ETHANOL	25	1.20 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.918E 0 M	ETHANOL	25	1.06 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.627E 0 M	ETHANOL	25	9.73 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
3.163E 0 M	ETHANOL	25	8.75 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.65 E 0 A	ETHANOL	30	1.77 X10-2 N	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	3
4.17 E 0 A	ETHANOL	30	1.58 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	RALS HOER	46001	T	L
5.77 E 0 A	ETHANOL	30	3.00 X10-2 N	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	L
8.80 E 0 A	ETHANOL	30	1.52 X10-2 M	CC	SPECFC CONDCTNCE GRAPH	RALS HOER	46001	T	L
1.437E 1 A	ETHANOL	30	2.1 X10-2 M	CC	SPECFC CONDCTNCE GRAPH	RALS HOER	46001	T	L
2.068E 1 A	ETHANOL	30	4.3 X10-2 M	CD	SPECFC CONDCTNCE GRAPH	RALS HOER	46001	T	L
2.812E 1 A	ETHANOL	30	1.03 X10-1 M	CD	SPECFC CONDCTNCE GRAPH	RALS HOER	46001	T	L
8.6 E 0 H	GLYCEROL	UNK	1.33 X10-Q M	CG	VISUAL SPCTR CHNGE DCFL	CORR HARK	46004	G	L
1.30 E 1 H	GLYCEROL	UNK	1.35 X10-2 M	CG	VISUAL SPCTR CHNGE DCFL	CORR HARK	46004	G	L
2. E-2 N	ACETIC ACID	30	1.49 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
2.5 E-3 M	HEXYL AMMONIUM CL	30	1.43 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K	3
5. E-3 M	HEXYL AMMONIUM CL	30	1.26 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K	3
1.0 E-2 M	HEXYL AMMONIUM CL	30	1.16 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K	L
2.5 E-2 M	HEXYL AMMONIUM CL	30	8.8 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K	L
5.0 E-2 M	HEXYL AMMONIUM CL	30	6.1 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K	L
2.5 E-3 N	H CL	30	1.39 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2.50 E-3 W	H CL	30.0	1.306X10-2 W	BB	ELECTROMOTIVE FORCE	HUTC WINS	57021	T	L
5. E-3 N	H CL	30	1.27 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1. E-2 N	H CL	30	1.15 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

	Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.003E-2 W	H CL	30.0	1.165X10-2 W	BB	ELECTROMOTIVE FORCE	HUTC WINS	57021	T	L
2. E-2 N	H CL	30	9.2 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5.008E-2 W	H CL	30.0	5.54 X10-3 W	BC	ELECTROMOTIVE FORCE	HUTC WINS	57021	T	L
1.002E-1 W	H CL	30.0	2.0 X10-3 W	BD	ELECTROMOTIVE FORCE	HUTC WINS	57021	T	L
2.51 E-3 W	H CL	40.0	1.162X10-2 W	BB	ELECTROMOTIVE FORCE	HUTC WINS	57021	T	L
1.004E-2 W	H CL	40.0	1.000X10-2 W	BB	ELECTROMOTIVE FORCE	HUTC WINS	57021	T	L
5.012E-2 W	H CL	40.0	5.04 X10-3 W	BE	ELECTROMOTIVE FORCE	HUTC WINS	57021	T	L
1.002E-1 W	H CL	40.0	1.9 X10-3 W	BD	ELECTROMOTIVE FORCE	HUTC WINS	57021	T	L
2. E-2 N	FORMIC ACID	30	1.45 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
1.00 E 2 E	N-HEXANE	30	1.30 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	48021	K	L
2.5 E-3 N	H NO3	30	1.20 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5. E-3 N	H NO3	30	1.02 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1. E-2 N	H NO3	30	7.3 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2. E-2 N	H NO3	30	4.9 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5.0 E-3 M	HEXANOL-1	25	1.17 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
6.6 E-3 M	HEXANOL-1	25	1.13 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
8.2 E-3 M	HEXANOL-1	25	1.06 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.18 E-2 M	HEXANOL-1	25	1.01 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.46 E-2 M	HEXANOL-1	25	9.5 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.64 E-2 M	HEXANOL-1	25	9.4 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.68 E-2 M	HEXANOL-1	25	9.1 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.96 E-2 M	HEXANOL-1	25	8.4 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.5 E-3 N	SUCCINIC ACID	30	1.48 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
2. E-2 N	TARTARIC ACID	30	1.83 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
1.90 E-3 M	HEPTANOL-1	25	1.15 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.74 E-3 M	HEPTANOL-1	25	1.11 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
3.59 E-3 M	HEPTANOL-1	25	1.09 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
4.94 E-3 M	HEPTANOL-1	25	9.97 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
5.96 E-3 M	HEPTANOL-1	25	9.02 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
6.43 E-3 M	HEPTANOL-1	25	8.65 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
7.07 E-3 M	HEPTANOL-1	25	8.55 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
7.73 E-3 M	HEPTANOL-1	25	7.80 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
7.5 E-3 M	K CL	25	1.01 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.50 E-2 M	K CL	25	8.06 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
3.00 E-2 M	K CL	25	6.62 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
6.00 E-2 M	K CL	25	4.70 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
5. E-2 N	K CL	50	6. X10-3 M	CE	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
1. E-1 N	K CL	50	3.5 X10-3 M	CB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
7.10 E-3 M	LA CL3	26	1.15 X10-2 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47010	T	L
1.27 E-2 M	LA CL3	26	8.12 X10-3 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47010	T	L
1.72 E-2 M	LA CL3	26	6.95 X10-3 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47010	T	L
1.619E 1 H	METHANOL	25	3.1 X10-2 M	BF	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	L
1.619E 1 H	METHANOL	25	1.77 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	P	3
2.465E 1 H	METHANOL	25	2.37 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	3
2.465E 1 H	METHANOL	25	5.2 X10-2 M	BF	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	L
4.82 E 0 A	METHANOL	30	1.64 X10-2 N	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	3
1.271E 1 A	METHANOL	30	2.50 X10-2 N	BD	EQUIV CONDCTNCE GRAPH	RALS EGGE	48023	T	L
2.5 E 1 B	METHANOL	30	2.50 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
2.5 E-3 N	NA ACETATE	30	1.39 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
5. E-3 N	NA ACETATE	30	1.29 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
1. E-2 N	NA ACETATE	30	1.10 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
2. E-2 N	NA ACETATE	30	8.6 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
8.02 E-3 M	NA CL	26	1.16 X10-2 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47010	T	L
1.71 E-2 M	NA CL	26	9.88 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	47010	T	L
2.75 E-2 M	NA CL	26	7.93 X10-3 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47010	T	L
4.96 E-2 M	NA CL	26	7.16 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	47010	T	L
9.23 E-2 M	NA CL	26	5.13 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	47010	T	L
1. E-3 N	NA CL	30	1.42 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2.5 E-3 N	NA CL	30	1.39 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5. E-3 N	NA CL	30	1.30 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1. E-2 M	NA CL	30	2.72 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
			1.226X10-2 M					M	
1. E-2 N	NA CL	30	1.13 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2. E-2 N	NA CL	30	8.9 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2. E-2 M	NA CL	30	2.27 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
			1.023X10-2 M					M	
4. E-2 M	NA CL	30	1.65 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
			7.439X10-3 M					M	
5. E-2 M	NA CL	30	6.7 X10-3 M	BB	DENSITY	CART ANAC	60005	K	3
5. E-2 N	NA CL	30	6.0 X10-3 M	CB	FOTOMTR SOLUBLZTN OROT	KOLT STRI	49005	T	L
5. E-2 N	NA CL	30	6.0 X10-3 M	CB	FOTOMTR SOLUBLZTN AZBZ	KOLT STRI	49005	T	L
5. E-2 N	NA CL	30	6.2 X10-3 M	CB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
6. E-2 M	NA CL	30	1.45 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
			6.537X10-3 M					M	
8. E-2 M	NA CL	30	1.16 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
			5.320X10-3 M					M	

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.0 E-1 M NA CL	30	1.09 X10-1 D 4.914X10-3 M	CD	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T M	L
1.5 E-1 M NA CL	30	1.01 X10-1 D 4.553X10-3 M	CD	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T M	L
2.0 E-1 M NA CL	30	9.3 X10-2 D 4.19 X10-3 M	CE	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T M	L
2.5 E-1 M NA CL	30	9.3 X10-2 D 4.19 X10-3 M	CE	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T M	L
3.0 E-1 M NA CL	30	8.5 X10-2 D 3.83 X10-3 M	CE	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T M	L
5. E-2 N NA CL	50	6.5 X10-3 M	CB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
5. E-2 N NA CL	50	6.0 X10-3 M	CB	FOTOMTR SOLUBLZTN OROT	KOLT STRI	49005	T	L
1. E-1 N NA CL	50	3.6 X10-3 M	CB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
1. E-1 N NA CL	50	3.5 X10-3 M	CB	FOTOMTR SOLUBLZTN OROT	KOLT STRI	49005	T	L
2. E-1 N NA CL	50	2.6 X10-3 M	CC	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
2. E-2 N NA HCO2 FORMATE	30	9.1 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
1. E-3 N NA NO3	30	1.37 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2.5 E-3 N NA NO3	30	1.23 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
5. E-3 N NA NO3	30	9.9 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
1. E-2 N NA NO3	30	7.6 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2. E-2 N NA NO3	30	4.6 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	G	3
2.5 E-3 N NA SUCCINATE	30	6.1 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
3.85 E-1 M PROPANOL-1	25	1.09 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
6.31 E-1 M PROPANOL-1	25	8.99 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
9.88 E-1 M PROPANOL-1	25	7.03 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
6.54 E-1 M PROPANOL-2	25	9.53 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.046E 0 M PROPANOL-2	25	7.62 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
8.00 E 0 H PROPANOL-2	25	9.2 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	3
1.619E 1 H PROPANOL-2	25	1.04 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	3
5. E 2 Y PRESSURE	25.0	1.39 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	L
1. E 3 Y PRESSURE	25.0	1.41 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	L
2. E 3 Y PRESSURE	25.0	1.42 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	L
4.84 E-5 M UNDECANOL-1	25	1.06 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
6.39 E-5 M UNDECANOL-1	25	9.43 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
8.31 E-5 M UNDECANOL-1	25	9.19 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.01 E-4 M UNDECANOL-1	25	7.47 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.28 E-4 M UNDECANOL-1	25	7.07 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
5.66 E 0 H TERTIARY BUTANOL	25	7.9 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	3
7.88 E 0 H TERTIARY BUTANOL	25	7.4 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	3
6.39 E-3 M TRIETHYL CARBINOL	25	1.18 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.22 E-2 M TRIETHYL CARBINOL	25	1.11 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.22 E-2 M TRIETHYL CARBINOL	25	1.01 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
3.08 E-2 M TRIETHYL CARBINOL	25	9.32 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
3.72 E-2 M TRIETHYL CARBINOL	25	8.44 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
4.27 E-2 M TRIETHYL CARBINOL	25	7.76 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
4.80 E-2 M TRIETHYL CARBINOL	25	7.27 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.5 E-3 M 0039	30	2.5 X10-3 M	BE	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K	L
1. E-1 K CL- ION 2.0 E 0 PH OF SOLUTION	UNK	3.50 X10-3 M	CB	SURFACE TENSION LOG PLOT	ROE BRAS	54013	T	L
2.52 E-5 M DECANOL-1 6.00 E-2 M K CL	25	4.43 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
4.53 E-5 M DECANOL-1 6.00 E-2 M K CL	25	3.98 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
4.96 E-5 M DECANOL-1 3.00 E-2 M K CL	25	6.00 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
5.52 E-5 M DECANOL-1 1.50 E-2 M K CL	25	6.73 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
6.32 E-5 M DECANOL-1 6.00 E-2 M K CL	25	3.70 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
6.81 E-5 M DECANOL-1 7.5 E-3 M K CL	25	8.63 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
8.05 E-5 M DECANOL-1 6.00 E-2 M K CL	25	3.53 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
8.23 E-5 M DECANOL-1 3.00 E-2 M K CL	25	4.98 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
8.86 E-5 M DECANOL-1 6.00 E-2 M K CL	25	3.11 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
9.42 E-5 M DECANOL-1 1.50 E-2 M K CL	25	5.74 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.01 E-4 M DECANOL-1 6.00 E-2 M K CL	25	2.95 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.03 E-4 M DECANOL-1 3.00 E-2 M K CL	25	4.14 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.10 E-4 M DECANOL-1 7.5 E-3 M K CL	25	6.95 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.26 E-4 M DECANOL-1 3.00 E-2 M K CL	25	3.82 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values—Continued

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.44 E-4 M DECANOL-1 3.00 E-2 M K CL	25	3.48 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.51 E-4 M DECANOL-1 1.50 E-2 M K CL	25	4.61 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.56 E-4 M DECANOL-1 7.5 E-3 M K CL	25	6.57 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.63 E-4 M DECANOL-1 3.00 E-2 M K CL	25	3.21 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.71 E-4 M DECANOL-1 1.50 E-2 M K CL	25	4.17 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.86 E-4 M DECANOL-1 1.50 E-2 M K CL	25	3.79 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.97 E-4 M DECANOL-1 7.5 E-3 M K CL	25	6.23 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.18 E-4 M DECANOL-1 7.5 E-3 M K CL	25	5.53 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.44 E-4 M DECANOL-1 7.5 E-3 M K CL	25	5.15 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
3.46 E-3 M HEXANOL-1 1.50 E-2 M K CL	25	7.79 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
4.03 E-3 M HEXANOL-1 7.5 E-3 M K CL	25	9.41 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
4.78 E-3 M HEXANOL-1 6.00 E-2 M K CL	25	3.86 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
4.88 E-3 M HEXANOL-1 3.00 E-2 M K CL	25	5.70 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
7.54 E-3 M HEXANOL-1 6.00 E-2 M K CL	25	3.05 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
7.88 E-3 M HEXANOL-1 3.00 E-2 M K CL	25	4.61 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
8.20 E-3 M HEXANOL-1 7.5 E-3 M K CL	25	8.70 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
9.79 E-3 M HEXANOL-1 1.50 E-2 M K CL	25	6.02 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
9.96 E-3 M HEXANOL-1 6.00 E-2 M K CL	25	2.68 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.10 E-2 M HEXANOL-1 3.00 E-2 M K CL	25	4.30 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.17 E-2 M HEXANOL-1 6.00 E-2 M K CL	25	2.36 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.20 E-2 M HEXANOL-1 7.5 E-3 M K CL	25	7.61 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.29 E-2 M HEXANOL-1 6.00 E-2 M K CL	25	2.09 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.36 E-2 M HEXANOL-1 3.00 E-2 M K CL	25	3.97 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.37 E-2 M HEXANOL-1 1.50 E-2 M K CL	25	5.62 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.41 E-2 M HEXANOL-1 6.00 E-2 M K CL	25	1.90 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.44 E-2 M HEXANOL-1 3.00 E-2 M K CL	25	3.38 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.60 E-2 M HEXANOL-1 7.5 E-3 M K CL	25	6.79 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.65 E-2 M HEXANOL-1 1.50 E-2 M K CL	25	5.08 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.69 E-2 M HEXANOL-1 3.00 E-2 M K CL	25	3.29 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.91 E-2 M HEXANOL-1 1.50 E-2 M K CL	25	4.71 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
1.93 E-2 M HEXANOL-1 7.5 E-3 M K CL	25	6.13 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.23 E-2 M HEXANOL-1 7.5 E-3 M K CL	25	5.69 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.54 E-2 M HEXANOL-1 7.5 E-3 M K CL	25	5.39 X10-3 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	50008	T	L
2.564E 1 H METHANOL 4.4 E 0 I LAURYL ALCOHOL	25	1.69 X10-2 M	BG	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	L
2.564E 1 H METHANOL 1.11 E 1 I LAURYL ALCOHOL	25	1.08 X10-2 M	BG	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	L
2.564E 1 H METHANOL 2.61 E 1 I LAURYL ALCOHOL	25	8.3 X10-3 M	BG	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	L
2.564E 1 H METHANOL 6.51 E 1 I LAURYL ALCOHOL	25	6.9 X10-3 M	BG	EQUIV CONDCTNCE GRAPH	BROW GRIE	49014	T	L
2.5 E 1 B METHANOL 2. E-2 N NA CL 293 ENTRIES FOR COMPOUND	30	1.82 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L

Concentration units: A—mol %, B—vol % solvent, C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions, M—molar, N—normal, P—wt %, Q—wt % surfactant, R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 39 MOL WGT – 249.9 TETRADECYL AMMONIUM CHLORIDE								
	25.0	2.8 X10-3 M	CC	SPECFC CONDCTNCE GRAPH	HOYE GREE	57004	T	L
	30	3.7 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	48020	K	L
	40	3.1 X10-3 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
	40	3.1 X10-3 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
	60	4.5 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	RALS HOER	42002	P	L
0038				SEE CMPD NMBR IN ADDITV	RALS EGGE	48020		X
6 ENTRIES FOR COMPOUND								
COMPOUND NO = 40 MOL WGT – 288.4 POTASSIUM DODECYL 1 SULFONATE								
	25	9.00 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
	25	9.0 X10-3 M	CC	REFRACTIVE INDEX	LIN	57005	T	L
	30	9.10 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
	35	9.20 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
	40	9.30 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
	40	1.1 X10-2 M	BC	SURFACE TENSION LOG PLOT	V VO	61026	TL	L
	45	9.50 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
	50	9.75 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
	55	1.000X10-2 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
	60	1.040X10-2 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
5. E-2 D BENZENE	25	8.65 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
1.0 E-1 D BENZENE	25	8.25 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
1.5 E-1 D BENZENE	25	7.60 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
5. E-2 D BENZENE	30	8.80 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
1.0 E-1 D BENZENE	30	8.45 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
1.5 E-1 D BENZENE	30	7.95 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
5. E-2 D BENZENE	35	9.00 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
1.0 E-1 D BENZENE	35	8.75 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
1.5 E-1 D BENZENE	35	8.35 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
5. E-2 D BENZENE	40	9.10 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
1.0 E-1 D BENZENE	40	8.90 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
1.5 E-1 D BENZENE	40	8.65 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	LIN	55008	T	L
2. E-2 K K NO3	20	4.47 X10-3 M	BB	SURFACE TENSION LOG PLOT	V VO	61026	TL	L
4. E-2 K K NO3	20	3.55 X10-3 M	BB	SURFACE TENSION LOG PLOT	V VO	61026	TL	L
24 ENTRIES FOR COMPOUND								
COMPOUND NO = 41 MOL WGT – 263.9 DODECYL TRIMETHYL AMMONIUM CHLORIDE								
	23	5.70 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
		2.159X10-2 M					M	
	25	1.72 X10-2 M	BB	UNSPECIFIED CONDUCTANCE	HOYE MARM	61002	T	L
	25	2.0 X10-2 M	BC	SURFACE TENSION LOG PLOT	WEIN ZOGR	65026	T	L
	25.0	2.03 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
	30	2.28 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS BROO	49013	T	L
	30	1.6 X10-2 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L
	UNK	2.28 X10-2 M	BC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
1. E-1 M K CL	25	7.5 X10-3 M	BC	SURFACE TENSION LOG PLOT	WEIN ZOGR	65026	T	L
2. E-2 M NA CL	23	4.20 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
		1.591X10-2 M					M	
4. E-2 M NA CL	23	3.10 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
		1.174X10-2 M					M	
1.0 E-1 M NA CL	23	1.90 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
		7.199X10-3 M					M	
5. E 2 Y PRESSURE	25.0	2.09 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
1. E 3 Y PRESSURE	25.0	2.11 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
1.5 E 3 Y PRESSURE	25.0	2.04 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
2. E 3 Y PRESSURE	25.0	1.98 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
3. E 3 Y PRESSURE	25.0	1.87 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
4. E 3 Y PRESSURE	25.0	1.83 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
5. E 3 Y PRESSURE	25.0	1.81 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
2.59 E 1 C 0042	25	1.14 X10-2 M	BB	UNSPEC SOLUBLZTN SDN 4	HOYE MARM	61002	T	L
5.00 E 1 C 0042	25	7.47 X10-3 M	BB	UNSPEC SOLUBLZTN SDN 4	HOYE MARM	61002	T	L
7.59 E 1 C 0042	25	5.01 X10-3 M	BB	UNSPEC SOLUBLZTN SDN 4	HOYE MARM	61002	T	L
4.96 E-1 W NA CL	31.5	3.8 X10-3 M	BC	DEBYE PLT LIGHT SCATTER	ANAC GHOS	63016	T	L
3.8 E-3 M NA BR								
22 ENTRIES FOR COMPOUND								
COMPOUND NO = 42 MOL WGT – 292.0 TETRADECYL TRIMETHYL AMMONIUM CHLORIDE								
	23	1.20 X10-1 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
		4.109X10-3 M					M	
	25	3.0 X10-3 M	HE	EQUIV CONDCTNCE GRAPH	BRAD MCBA	48009	T	L
	25	4.47 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	HOYE MARM	61002	T	3
	40	3.6 X10-3 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	40	4.0 X10-3 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
	UNK	6.3 X10-3 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
2. E-2 M NA CL	23	7.0 X10-2 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
		2.39 X10-3 M					M	
4. E-2 M NA CL	23	4.0 X10-2 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
		1.36 X10-3 M					M	
1.0 E-1 M NA CL	23	3.0 X10-2 D	CC	TURBIDITY PLT LITE SCATR	KUSH PARK	57006	T	L
		1.02 X10-3 M					M	
0041				SEE CMPD NMBR IN ADDITV	HOYE MARM	61002		X
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 43 MOL WGT - 88.1 BUTYRIC ACID								
	0	1.50 X10 1 P	AB	PARTIAL VOLUME	GRIN BURY	29001	T	L
		1.702X10 0 S					M	
	0	1.1 X10 0 W	AE	FREEZING POINT	JONE BURY	27002	T	L
	0	1.5 X10 0 W	AE	FREEZING POINT	JONE BURY	27002	P	L
	0	1.82 X10 0 M	AD	UNSPEC SOLUBLZTN PDMAB	MOUL BENS	59007	T	L
	12	1.37 X10 1 P	AB	PARTIAL VOLUME	GRIN BURY	29001	T	L
		1.555X10 0 S					M	
	18	1.30 X10 1 P	AB	PARTIAL VOLUME	GRIN BURY	29001	T	L
		1.475X10 0 S					M	
	25	1.23 X10 1 P	AB	PARTIAL VOLUME	GRIN BURY	29001	T	L
		1.396X10 0 S					M	
	25	1.75 X10 0 M	AD	UNSPEC SOLUBLZTN PDMAB	MOUL BENS	59007	T	L
	35	1.20 X10 1 P	AB	PARTIAL VOLUME	GRIN BURY	29001	T	L
		1.362X10 0 S					M	
	40	1.58 X10 0 M	AD	UNSPEC SOLUBLZTN PDMAB	MOUL BENS	59007	T	L
	60	1.62 X10 0 M	AD	UNSPEC SOLUBLZTN PDMAB	MOUL BENS	59007	T	L
	UNK	1.2 X10 0 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
12 ENTRIES FOR COMPOUND								
COMPOUND NO = 44 MOL WGT - 182.3 POTASSIUM OCTANOATE								
				GRAPH DATA NOT RETRIEVED	KLEV	46007		R
	25	4.7 X10-1 M	BC	PARTIAL VOLUME	DAVI BURY	30001	T	L
	25	3.9 X10-1 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
	25	3.95 X10-1 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
	25	4.00 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	25	3.9 X10-1 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	45	4.5 X10-1 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
	UNK	3.9 X10-1 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
2.2 E-1 P BENZENE	25	3.84 X10-1 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
7.5 E-2 M K CL	25	3.76 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
3.09 E-1 M K CL	25	3.09 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
5.30 E-1 M K CL	25	2.65 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
8.65 E-1 M K CL	25	2.16 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.22 E 0 M K CL	25	1.75 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.52 E 0 M K CL	25	1.52 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.22 E 0 M K CL	25	1.11 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.73 E 0 M K CL	25	9.1 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.97 E 0 M K CL	25	8.5 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
3.20 E 0 M K CL	25	8.0 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2. E 0 I K OH	10	4.00 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	S	L
3.3 E-2 W K OH	15	3.72 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	20	3.55 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
4.2 E-2 W K OH	20	4.3 X10-1 W	BB	VAPR PRESURE LOWERING	WHIT BENS	59008	T	L
3.3 E-2 W K OH	25	3.45 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
4.20 E-2 W K OH	25	4.25 X10-1 W	BA	SPECIFIC HEAT	WHIT BENS	60002	T	L
2. E 0 I K OH	25	3.8 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.3 E-2 W K OH	30	3.30 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
4.2 E-2 W K OH	30	4.2 X10-1 W	BB	VAPR PRESURE LOWERING	WHIT BENS	59008	T	L
3.3 E-2 W K OH	35	3.13 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
4.20 E-2 W K OH	35	3.92 X10-1 W	BA	SPECIFIC HEAT	WHIT BENS	60002	T	L
3.3 E-2 W K OH	40	3.05 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	45	3.10 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
4.20 E-2 W K OH	45	3.93 X10-1 W	BA	SPECIFIC HEAT	WHIT BENS	60002	T	L
3.3 E-2 W K OH	50	3.18 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
3.3 E-2 W K OH	55	3.31 X10-1 W	BA	SPECFC CONDCTNCE EQUATNS	WHIT BENS	59012	E	3
4.20 E-2 W K OH	55	4.42 X10-1 W	BA	SPECIFIC HEAT	WHIT BENS	60002	T	L
1. E-5 N PINACYANOL CL (DYE)	25	3.40 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
2.5 E-5 N PINACYANOL CL (DYE)	25	3.88 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
5. E-5 N PINACYANOL CL (DYE)	25	4.01 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
1. E-4 N PINACYANOL CL (DYE)	25	4.02 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
0188	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
0.64 E-2 M BUTANOL-1 2. E 0 I K OH	10	3.80 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.20 E-1 M BUTANOL-1 2. E 0 I K OH	10	3.55 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.17 E-1 M BUTANOL-1 2. E 0 I K OH	10	3.22 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.21 E-1 M BUTANOL-1 2. E 0 I K OH	10	2.73 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.64 E-1 M BUTANOL-1 2. E 0 I K OH	10	2.29 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.10 E-4 M DECANOL-1 2. E 0 I K OH	10	3.91 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.13 E-4 M DECANOL-1 2. E 0 I K OH	10	3.76 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
6.4 E-1 M ETHANOL 2. E 0 I K OH	10	3.59 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.16 E 0 M ETHANOL 2. E 0 I K OH	10	3.32 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.82 E 0 M ETHANOL 2. E 0 I K OH	10	2.93 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.50 E 0 M ETHANOL 2. E 0 I K OH	10	2.57 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.11 E 0 M ETHANOL 2. E 0 I K OH	10	2.20 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
7.0 E-3 M HEXANOL-1 2. E 0 I K OH	10	3.79 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.32 E-2 M HEXANOL-1 2. E 0 I K OH	10	3.55 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.03 E-2 M HEXANOL-1 2. E 0 I K OH	10	3.27 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.94 E-2 M HEXANOL-1 2. E 0 I K OH	10	2.97 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.90 E-2 M HEXANOL-1 2. E 0 I K OH	10	2.63 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.08 E-3 M HEPTANOL-1 2. E 0 I K OH	10	3.83 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.95 E-3 M HEPTANOL-1 2. E 0 I K OH	10	3.65 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
7.42 E-3 M HEPTANOL-1 2. E 0 I K OH	10	3.41 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.43 E-2 M HEPTANOL-1 2. E 0 I K OH	10	3.28 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
7.1 E-4 M OCTANOL-1 2. E 0 I K OH	10	3.84 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.36 E-3 M OCTANOL-1 2. E 0 I K OH	10	3.71 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.73 E-3 M OCTANOL-1 2. E 0 I K OH	10	3.54 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.54 E-3 M OCTANOL-1 2. E 0 I K OH	10	3.47 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.28 E-1 M PROPANOL-1 2. E 0 I K OH	10	3.73 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.43 E-1 M PROPANOL-1 2. E 0 I K OH	10	3.53 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.37 E-1 M PROPANOL-1 2. E 0 I K OH	10	3.18 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
7.05 E-1 M PROPANOL-1 2. E 0 I K OH	10	2.92 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
9.42 E-1 M PROPANOL-1 2. E 0 I K OH	10	2.48 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.27 E 0 M PROPANOL-1 2. E 0 I K OH	10	2.21 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.63 E-4 M NONANOL-1 2. E 0 I K OH	10	3.88 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.18 E-4 M NONANOL-1 2. E 0 I K OH	10	3.80 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.65 E-4 M NONANOL-1 2. E 0 I K OH	10	3.69 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
6.36 E-4 M NONANOL-1 2. E 0 I K OH	10	3.63 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.1 E 0 C 0090 2. E 0 I K OH	25	3.4 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
5.6 E 0 C 0090 2. E 0 I K OH	25	3.1 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
9.4 E 0 C 0090 2. E 0 I K OH	25	2.8 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values—Continued

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.36 E 1 C 0090 2. E 0 I K OH	25	2.5 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.19 E 1 C 0090 2. E 0 I K OH	25	2.1 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
2.51 E 1 C 0090 2. E 0 I K OH	25	2.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.32 E 1 C 0090 2. E 0 I K OH	25	1.8 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4.30 E 1 C 0090 2. E 0 I K OH	25	1.5 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
5.91 E 1 C 0090 2. E 0 I K OH	25	1.3 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
7.58 E 1 C 0090 2. E 0 I K OH	25	1.1 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.0 E 0 C 0091 2. E 0 I K OH	25	2.8 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.3 E 0 C 0091 2. E 0 I K OH	25	2.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4.4 E 0 C 0091 2. E 0 I K OH	25	1.4 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
7.7 E 0 C 0091 2. E 0 I K OH	25	1.1 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.21 E 1 C 0091 2. E 0 I K OH	25	8.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.00 E 1 C 0091 2. E 0 I K OH	25	6.0 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.74 E 1 C 0091 2. E 0 I K OH	25	4.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
5.62 E 1 C 0091 2. E 0 I K OH	25	3.3 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
E 0 0092 2. E 0 I K OH	25			GRAPH DATA NOT RETRIEVED	SHIN	54005		R
1.2 E 0 C 0092 2. E 0 I K OH	25	7.3 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.9 E 0 C 0092 2. E 0 I K OH	25	5.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.6 E 0 C 0092 2. E 0 I K OH	25	4.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4.6 E 0 C 0092 2. E 0 I K OH	25	3.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.67 E 1 C 0092 2. E 0 I K OH	25	2.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.61 E 1 C 0092 2. E 0 I K OH	25	1.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.18 E 1 C 0092 2. E 0 I K OH	25	1.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
0296 2. E 0 I K OH	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
2.3 E 0 C 0297 2. E 0 I K OH	25	3.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.8 E 0 C 0297 2. E 0 I K OH	25	2.5 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.1 E 0 C 0297 2. E 0 I K OH	25	2.2 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.09 E 1 C 0297 2. E 0 I K OH	25	1.7 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.73 E 1 C 0297 2. E 0 I K OH	25	1.3 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.94 E 1 C 0297 2. E 0 I K OH	25	9.6 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
5.01 E 1 C 0297 2. E 0 I K OH	25	6.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.87 E 1 C 0297 2. E 0 I K OH	25	5.6 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.68 E-2 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	3.80 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.47 E-2 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	3.53 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
9.04 E-2 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	3.20 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.42 E-1 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	2.88 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.92 E-1 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	2.27 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.68 E-1 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	2.00 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
9.7 E 0 C 0090 5.61 E 1 C 0091 2. E 0 I K OH	25	3.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
1.40 E 1 C 0090 3.61 E 1 C 0091 2. E 0 I K OH	25	4.7 X10 2 M	BC	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
1.65 E 1 C 0090 2.49 E 1 C 0091 2. E 0 I K OH	25	5.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
1.81 E 1 C 0090 1.75 E 1 C 0091 2. E 0 I K OH	25	6.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
1.92 E 1 C 0090 1.24 E 1 C 0091 2. E 0 I K OH	25	8.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
2.01 E 1 C 0090 8.6 E 0 C 0091 2. E 0 I K OH	25	9.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
2.07 E 1 C 0090 5.7 E 0 C 0091 2. E 0 I K OH	25	1.2 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
2.12 E 1 C 0090 3.3 E 0 C 0091 2. E 0 I K OH	25	1.4 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
2.16 E 1 C 0090 1.5 E 0 C 0091 2. E 0 I K OH	25	1.7 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
0188 127 ENTRIES FOR COMPOUND	25			SEE CMPD NMBR IN ADDITV	SHIN	54003		X
COMPOUND NO = 45 MOL WGT = 334.4 SODIUM P 1 METHYL DECYL BENZENE SULFONATE								
	19.0	2.45 X10-3 W	BC	KRAFFT POINT SOLUBILITY	GERS	57012	T	L
	35	2.53 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	GERS	57012	T	2
	40	1.90 X10-3 W	BC	SURFACE TENSION LOG PLOT	GERS	57012	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 46 MOL WGT = 362.4 SODIUM P 1 METHYL DODECYL BENZENE SULFONATE								
	27.7	7.1 X10-4 W	CC	KRAFFT POINT SOLUBILITY	GERS	57012	T	L
	35	7.2 X10-4 W	CA	SPECFC CONDCTNCE GRAPH	GERS	57012	T	3
	40	6.2 X10-4 W	CD	SURFACE TENSION MINIMUM	GERS	57012	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 47 MOL WGT = 390.5 SODIUM P 1 METHYL TETRADECYL BENZENE SULFONATE								
	32.6	5.0 X10-4 W	BC	KRAFFT POINT SOLUBILITY	GERS	57012	T	L
	40	2.2 X10-4 W	BC	SURFACE TENSION LOG PLOT	GERS	57012	T	L
	40	3.1 X10-4 W	BB	SPECFC CONDCTNCE GRAPH	GERS	57012	T	3
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 48 MOL WGT = 418.6 SODIUM P 1 METHYL HEXADECYL BENZENE SULFONATE								
	45.5	1.4 X10-4 W	CD	KRAFFT POINT SOLUBILITY	GERS	57012	T	L
	50	1.3 X10-4 W	CC	SPECFC CONDCTNCE GRAPH	GERS	57012	T	L
	50	1.4 X10-4 W	CD	SURFACE TENSION MINIMUM	GERS	57012	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 49 MOL WGT = 292.3 SODIUM P OCTYL BENZENE SULFONATE								
	25	1.11 X10-2 W	CD	SURFACE TENSION MINIMUM	GERS	57012	T	L
	25	1.1 X10-2 M	CE	EQUIV COND 1ST DEVIATION	LING TART	43001	T	L
	25	1.23 X10-2 W	CB	EQUIV CONDCTNCE GRAPH	LING TART	43001	P	L
	35	1.47 X10-2 W	CA	SPECFC CONDCTNCE GRAPH	GERS	57012	T	3
	40	1.2 X10-2 M	CE	EQUIV COND 1ST DEVIATION	LING TART	43001	T	L
	40	1.32 X10-2 W	CB	EQUIV CONDCTNCE GRAPH	LING TART	43001	P	L
	60	1.63 X10-2 W	CB	EQUIV CONDCTNCE GRAPH	LING TART	43001	P	L
	60	1.5 X10-2 M	CE	EQUIV COND 1ST DEVIATION	LING TART	43001	T	L
	UNK	1.12 X10-2 M	CG	METHOD NOT CITED	KLEV CARR	56001	T	L
9 ENTRIES FOR COMPOUND								
COMPOUND NO = 50 MOL WGT = 320.4 SODIUM P DECYL BENZENE SULFONATE								
	50	1.47 X10-2 W	CA	SPECFC CONDCTNCE GRAPH	GERS	57012	T	3
	50	3.14 X10-3 W	CD	SURFACE TENSION MINIMUM	GERS	57012	T	L
	UNK	3.5 X10-3 M	CG	METHOD NOT CITED	KLEV CARR	56001	T	L
3 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 51 MOL WGT = 348.4 SODIUM P DODECYL BENZENE SULFONATE								
	23	1.6 X10-3 M	HG	STREAMING CURRENT	CARD	66011	T	L
	60	1.20 X10-3 W	CA	SPECFC CONDCTNCE GRAPH	GERS	57012	T	3
	60	1.26 X10-3 W	CB	EQUIV CONDCTNCE GRAPH	LING TART	43001	P	L
	60	1.2 X10-3 M	CE	EQUIV COND 1ST DEVIATION	LING TART	43001	T	L
	UNK	2.8 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	FAVA EYRI	56016	T	L
	UNK	2.8 X10-3 M	CG	VISUAL SPCTR CHNGE RHD6	FAVA EYRI	56016	T	L
	UNK	1.0 X10-3 M	CB	SURFACE TENSION LOG PLOT	FAVA EYRI	56016	T	L
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 52 MOL WGT = 388.5 SODIUM HEXADECYL MONO OXYETHYLENE SULFATE								
	25	2.2 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL BIST	58003	T	L
	25	2.1 X10-4 M	CC	SURFACE TENSION LOG PLOT	WEIL BIST	58003	T	L
	25	2.34 X10-4 M	CC	EQUIV CONDCTNCE GRAPH	WEIL BIST	58003	T	L
	50	2.4 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 53 MOL WGT = 432.6 SODIUM HEXADECYL DI OXYETHYLENE SULFATE								
	25	1.4 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL BIST	58003	T	L
	25	1.2 X10-4 M	CC	SURFACE TENSION LOG PLOT	WEIL BIST	58003	T	L
	25	1.34 X10-4 M	CC	EQUIV CONDCTNCE GRAPH	WEIL BIST	58003	T	L
	50	1.4 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 54 MOL WGT = 476.6 SODIUM HEXADECYL TRI OXYETHYLENE SULFATE								
	25	1.0 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL BIST	58003	T	L
	25	7.0 X10-5 M	CD	SURFACE TENSION LOG PLOT	WEIL BIST	58003	T	L
	25	1.23 X10-4 M	CC	EQUIV COND MAX BEGINING	WEIL BIST	58003	T	L
	50	1.95 X10-4 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
	50	1.2 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 55 MOL WGT = 520.7 SODIUM HEXADECYL TETRA OXYETHYLENE SULFATE								
	25	8.0 X10-5 M	CD	SURFACE TENSION LOG PLOT	WEIL BIST	58003	T	L
	25	1.0 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL BIST	58003	T	L
	50	1.01 X10-4 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
	50	1.2 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 56 MOL WGT = 416.6 SODIUM OCTADECYL MONO OXYETHYLENE SULFATE								
	25	1.1 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL BIST	58003	T	L
	25	1.9 X10-4 M	BD	SURFACE TENSION LOG PLOT	WEIL BIST	58003	T	L
	50	9.0 X10-5 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 57 MOL WGT = 460.6 SODIUM OCTADECYL DI OXYETHYLENE SULFATE								
	25	7.0 X10-5 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL BIST	58003	T	L
	25	8.0 X10-5 M	BD	SURFACE TENSION LOG PLOT	WEIL BIST	58003	T	L
	50	1.00 X10-4 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
	50	7.0 X10-5 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 58 MOL WGT = 504.7 SODIUM OCTADECYL TRI OXYETHYLENE SULFATE								
	25	5.0 X10-5 M	CD	SURFACE TENSION LOG PLOT	WEIL BIST	58003	T	L
	25	5.0 X10-5 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL BIST	58003	T	L
	50	6.98 X10-5 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
	50	7.0 X10-5 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 59 MOL WGT = 548.7 SODIUM OCTADECYL TETRA OXYETHYLENE SULFATE								
	25	4.0 X10-5 M	CD	SURFACE TENSION LOG PLOT	WEIL BIST	58003	T	L
	25	4.0 X10-5 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL BIST	58003	T	L
	50	3.97 X10-5 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
	50	7.0 X10-5 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 60 MOL WGT = 471.7 TRIETHANOL AMMONIUM HEXADECYL SULFATE								
	50	3.4 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 61 MOL WGT = 370.5 SODIUM OLEYL/CIS 9 OCTADECENOYL/ SULFATE								
	25	3.0 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
	50	3.50 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
	50	2.9 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 62 MOL WGT = 370.5 SODIUM ELAIDYL/TRANS 9 OCTADECENOYL/SULFATE								
	50	1.8 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 63 MOL WGT = 441.4 SODIUM 9 10 DICHLORO OCTADECYL SULFATE								
	25	3.1 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
	50	2.6 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 64 MOL WGT = 372.5 SODIUM OCTADECYL 1 SULFATE								
		53005		VALUES FRM REF IN CMC	KLIN LANG	57022		R
	40.0	1.65 X10-4 M	BE	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
	40.0	3.0 X10-4 M	BD	EQUIV CONDCTNCE GRAPH	EVAN	56006	KL	L
	50	1.7 X10-4 M	CD	EQUIV CONDCTNCE GRAPH	LANG	53005	T	L
	50	2.31 X10-4 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
	50	1.9 X10-4 M	BB	INTERFACIAL TENSION LOGM	KLIN LANG	57022	T	L
	50	2.3 X10-4 M	BB	SURFACE TENSION LOG PLOT	KLIN LANG	57022	T	L
	50	1.1 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
	50	1.1 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	UNK	1.0 X10-2 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		2.68 X10-4 M					M	
E 0 0001	50			GRAPH DATA NOT RETRIEVED	LANG	53005		R
11 ENTRIES FOR COMPOUND								
COMPOUND NO = 65 MOL WGT = 499.7 TRIETHANOLAMMONIUM OCTADECYL 1 SULFATE								
	50	7.0 X10-5 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	59004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 66 MOL WGT = 232.2 SODIUM OCTYL 2 SULFATE								
	40.0	1.80 X10-1 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 67 MOL WGT = 288.3 SODIUM DODECYL 2 SULFATE								
	55	2.82 X10-1 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		9.781X10-3 M					M	
2.22 E 1 Q N-C10 GLYCEROL ETHER	55	1.76 X10-1 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		6.104X10-3 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 68 MOL WGT = 302.3 SODIUM TRIDECYL 2 SULFATE								
	40.0	6.50 X10-3 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 69 MOL WGT = 330.4 SODIUM PENTADECYL 2 SULFATE								
	40.0	1.71 X10-3 M	BB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 70 MOL WGT = 358.5 SODIUM HEPTADECYL 2 SULFATE								
	40.0	4.9 X10-4 M	BC	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 71 MOL WGT = 372.5 SODIUM OCTADECYL 2 SULFATE								
	40.0	2.6 X10-4 M	BC	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 72 MOL WGT = 274.3 SODIUM UNDECYL 3 SULFATE								
	40.0	2.89 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
	RM	3.88 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	WINS	48008	T	L
2 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 73 MOL WGT = 316.4 SODIUM TETRADECYL 3 SULFATE								
	40	4.3 X10-3 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	40.0	4.30 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
	60	4.85 X10-3 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	RM	4.53 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	WINS	48008	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 74 MOL WGT = 330.4 SODIUM PENTADECYL 3 SULFATE								
	40.0	2.20 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 75 MOL WGT = 344.4 SODIUM HEXADECYL 4 SULFATE								
	40.0	1.72 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 76 MOL WGT = 372.5 SODIUM OCTADECYL 4 SULFATE								
	40.0	4.5 X10-4 M	CC	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 77 MOL WGT = 316.4 SODIUM TETRADECYL 5 SULFATE								
	40	6.9 X10-3 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	40.0	6.75 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
	60	7.95 X10-3 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	RM	7.95 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	WINS	48008	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 78 MOL WGT = 330.4 SODIUM PENTADECYL 5 SULFATE								
	40.0	3.40 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 79 MOL WGT = 386.5 SODIUM NONADECYL 5 SULFATE								
	40.0	3.3 X10-4 M	CC	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 80 MOL WGT = 274.3 SODIUM UNDECYL 6 SULFATE								
	40.0	8.3 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 81 MOL WGT = 344.4 SODIUM HEXADECYL 6 SULFATE								
	40.0	2.35 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 82 MOL WGT = 372.5 SODIUM OCTADECYL 6 SULFATE								
	40.0	7.2 X10-4 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 83 MOL WGT = 302.3 SODIUM TRIDECYL 7 SULFATE								
	40.0	1.93 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 84 MOL WGT = 316.4 SODIUM TETRADECYL 7 SULFATE								
	40	9.7 X10-3 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	40.0	9.70 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
	60	1.15 X10-2 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	L
	RM	1.58 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	WINS	48008	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 85 MOL WGT = 330.4 SODIUM PENTADECYL 8 SULFATE								
	40.0	6.65 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 86 MOL WGT = 344.4 SODIUM HEXADECYL 8 SULFATE								
	40.0	4.25 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	3
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 87 MOL WGT = 358.5 SODIUM HEPTADECYL 9 SULFATE								
	40.0	2.35 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 88 MOL WGT = 386.5 SODIUM 1 NONYL DECYL SULFATE								
	40.0	9.4 X10-4 M	CB	SPECFC CONDCTNCE GRAPH	EVAN	56006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 89 MOL WGT = 526.8 SODIUM 1 TETRADECYL PENTADECYL SULFATE								
	40.0	8. X10-5 M	CG	EQUIV CONDCTNCE MAXIMUM	EVAN	56006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 90 MOL WGT = 210.3 POTASSIUM DECANOATE								
				GRAPH DATA NOT RETRIEVED	KLEV	46007		R
	25	9.9 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
	25	1.00 X10-1 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
	25	9.98 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
	25	9.5 X10-2 M	BC	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	25	9.98 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	30	1.06 X10-1 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	45	9.8 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
	45	1.18 X10-1 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
	50	1.05 X10-1 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	50	48016		VALUES FRM REF IN CMC	KOLT STRI	49005		R
	UNK	9.5 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	T	L
0.22 E-1 P BENZENE	25	9.3 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
1.05 E-2 M K CL	25	9.49 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.29 E-2 M K CL	25	9.17 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
3.79 E-2 M K CL	25	8.85 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
5.59 E-2 M K CL	25	8.38 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
7.87 E-2 M K CL	25	7.87 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.10 E-1 M K CL	25	7.31 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.51 E-1 M K CL	25	6.45 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.27 E-1 M K CL	25	5.68 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
3.44 E-1 M K CL	25	4.69 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
3.86 E-1 M K CL	25	4.29 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1. E 0 N K CL	50	2.2 X10-2 M	DC	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
. E 0 K OH	0	1.68 X10-1 W	CB	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
2. E 0 I K OH	10	1.09 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	S	L
4.4 E-2 N K OH	20	7. X10-2 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T	L
4.4 E-2 N K OH	20	5.7 X10-2 M	CE	DIFFUSION COEFFICIENT	TYUZ	61025	T	L
4.4 E-2 N K OH	20	1.06 X10-1 M	CE	DIFFUSION COEFFICIENT	TYUZ	61025	T	L
2. E 0 I K OH	25	1.00 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
. E 0 K OH	30	9.8 X10-2 W	CB	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
. E 0 K OH	50	1.15 X10-1 W	CB	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
1. E-1 N K2 SO4	50	8.2 X10-2 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
2. E-1 N K2 SO4	50	6.5 X10-2 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
2. E-1 N K2 SO4	50	4.5 X10-2 M	DC	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
0044	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
0091	UNK			SEE CMPD NMBR IN ADDITV	CORR HARK	46015		X
1.10 E 1 C 0092	25	5.2 X10-2 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
3.05 E 1 C 0092	25	1.5 X10-2 M	DD	REFRACTIVE INDEX	KLEV	48005	T	L
4.50 E 1 C 0092	25	1.2 X10-2 M	DD	REFRACTIVE INDEX	KLEV	48005	T	L
0188	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
3.63 E-2 M BUTANOL-1	10	1.01 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
6.74 E-2 M BUTANOL-1	10	9.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
9.52 E-2 M BUTANOL-1	10	8.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.44 E-1 M BUTANOL-1	10	8.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.80 E-1 M BUTANOL-1	10	7.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
2.29 E-1 M BUTANOL-1	10	6.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
6.4 E-5 M DECANOL-1	10	1.06 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.20 E-4 M DECANOL-1	10	1.02 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.64 E-4 M DECANOL-1	10	1.01 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
5.44 E-1 M ETHANOL	10	9.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
9.9 E-1 M ETHANOL 2. E 0 I K OH	10	8.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.37 E 0 M ETHANOL 2. E 0 I K OH	10	8.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.91 E 0 M ETHANOL 2. E 0 I K OH	10	6.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.33 E 0 M ETHANOL 2. E 0 I K OH	10	6.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.82 E 0 M ETHANOL 2. E 0 I K OH	10	5.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
9.0 E-3 M HEXANOL-1 2. E 0 I K OH	10	9.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.60 E-2 M HEXANOL-1 2. E 0 I K OH	10	8.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.12 E-2 M HEXANOL-1 2. E 0 I K OH	10	7.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.85 E-2 M HEXANOL-1 2. E 0 I K OH	10	6.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.70 E-3 M HEPTANOL-1 2. E 0 I K OH	10	9.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.73 E-3 M HEPTANOL-1 2. E 0 I K OH	10	8.6 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
8.35 E-3 M HEPTANOL-1 2. E 0 I K OH	10	7.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
7.8 E-4 M OCTANOL-1 2. E 0 I K OH	10	1.02 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.49 E-3 M OCTANOL-1 2. E 0 I K OH	10	9.6 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.11 E-3 M OCTANOL-1 2. E 0 I K OH	10	9.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.70 E-3 M OCTANOL-1 2. E 0 I K OH	10	8.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.30 E-1 M PROPANOL-1 2. E 0 I K OH	10	9.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.35 E-1 M PROPANOL-1 2. E 0 I K OH	10	8.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.51 E-1 M PROPANOL-1 2. E 0 I K OH	10	8.0 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.82 E-1 M PROPANOL-1 2. E 0 I K OH	10	7.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
6.34 E-1 M PROPANOL-1 2. E 0 I K OH	10	6.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
8.25 E-1 M PROPANOL-1 2. E 0 I K OH	10	5.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.91 E-4 M NONANOL-1 2. E 0 I K OH	10	1.02 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.64 E-4 M NONANOL-1 2. E 0 I K OH	10	9.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.84 E-4 M NONANOL-1 2. E 0 I K OH	10	9.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
5.70 E-4 M NONANOL-1 2. E 0 I K OH	10	9.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
0044 2. E 0 I K OH	25			SEE CMPD NMBR IN ADDITV	SHIN	54003		X
1.9 E 0 C 0091 2. E 0 I K OH	25	9.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.8 E 0 C 0091 2. E 0 I K OH	25	8.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.0 E 0 C 0091 2. E 0 I K OH	25	7.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.55 E 1 C 0091 2. E 0 I K OH	25	6.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.34 E 1 C 0091 2. E 0 I K OH	25	5.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.80 E 1 C 0091 2. E 0 I K OH	25	4.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.58 E 1 C 0091 2. E 0 I K OH	25	4.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4.75 E 1 C 0091 2. E 0 I K OH	25	3.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.80 E 1 C 0091 2. E 0 I K OH	25	3.3 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.0 E 0 C 0092 2. E 0 I K OH	25	8.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.7 E 0 C 0092 2. E 0 I K OH	25	7.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.5 E 0 C 0092 2. E 0 I K OH	25	5.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
4.2 E 0 C 0092 2. E 0 I K OH	25	4.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.9 E 0 C 0092 2. E 0 I K OH	25	3.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.13 E 1 C 0092 2. E 0 I K OH	25	2.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.78 E 1 C 0092 2. E 0 I K OH	25	2.0 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.18 E 1 C 0092 2. E 0 I K OH	25	1.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
0296 2. E 0 I K OH	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
4.8 E 0 C 0297 2. E 0 I K OH	25	9.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.15 E 1 C 0297 2. E 0 I K OH	25	8.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.78 E 1 C 0297 2. E 0 I K OH	25	8.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.53 E 1 C 0297 2. E 0 I K OH	25	7.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.28 E 1 C 0297 2. E 0 I K OH	25	7.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4.39 E 1 C 0297 2. E 0 I K OH	25	6.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
5.36 E 1 C 0297 2. E 0 I K OH	25	6.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.65 E 1 C 0297 2. E 0 I K OH	25	5.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
8.18 E 1 C 0297 2. E 0 I K OH	25	5.3 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
9.6 E-3 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	1.06 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.99 E-2 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	9.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.03 E-2 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	9.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.60 E-2 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	8.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
5.79 E-2 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	8.3 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
8.14 E-2 M 3-METHYL BUTANOL-1 2. E 0 I K OH	10	7.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
0044	25			SEE CMPD NMBR IN ADDITV	SHIN	54003		X
5.9 E 0 C 0091 6.4 E 0 C 0092 2. E 0 I K OH	25	3.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
1.24 E 1 C 0091 5.9 E 0 C 0092 2. E 0 I K OH	25	3.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
1.94 E 1 C 0091 5.5 E 0 C 0092 2. E 0 I K OH	25	3.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
2.74 E 1 C 0091 4.9 E 0 C 0092 2. E 0 I K OH	25	3.0 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
3.62 E 1 C 0091 4.3 E 0 C 0092 2. E 0 I K OH	25	3.0 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
4.59 E 1 C 0091 3.7 E 0 C 0092 2. E 0 I K OH	25	3.0 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
5.68 E 1 C 0091 2.9 E 0 C 0092 2. E 0 I K OH	25	2.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
6.92 E 1 C 0091 2.1 E 0 C 0092 2. E 0 I K OH	25	2.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
8.35 E 1 C 0091 1.1 E 0 C 0092 2. E 0 I K OH	25	2.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
2.3 E 0 C 0297 1.2 E 0 C 0091 2. E 0 I K OH	25	9.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
4.9 E 0 C 0297 2.5 E 0 C 0091 2. E 0 I K OH	25	8.6 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
8.0 E 0 C 0297 4.1 E 0 C 0091 2. E 0 I K OH	25	7.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
1.17 E 1 C 0297 6.0 E 0 C 0091 2. E 0 I K OH	25	7.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
1.61 E 1 C 0297 8.2 E 0 C 0091 2. E 0 I K OH	25	6.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
2.14 E 1 C 0297 1.09 E 1 C 0091 2. E 0 I K OH	25	5.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
2.82 E 1 C 0297 1.44 E 1 C 0091 2. E 0 I K OH	25	5.3 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
3.75 E 1 C 0297 1.91 E 1 C 0091 2. E 0 I K OH	25	4.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
4.96 E 1 C 0297 2.52 E 1 C 0091 2. E 0 I K OH	25	4.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
130 ENTRIES FOR COMPOUND								
COMPOUND NO = 91 MOL WGT = 238.4 POTASSIUM DODECANOATE								
		47005		VALUES FRM REF IN CMC	KLEV	48005		R
		47006		VALUES FRM REF IN CMC	CORR HARK	46005		R
				GRAPH DATA NOT RETRIEVED	KLEV	46007		R
		48016		VALUES FRM REF IN CMC	KOLT STRI	49005		R
	15.0	2.35 X10-2 M	DG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	23.5	6.15 X10-1 D	DB	REFRACTIVE INDEX	KLEV	46012	T	L
		2.579X10-2 M					M	
	25	9. X10-1 P	BD	DENSITY	BURY PARR	35008	T	L
		3.7 X10-2 S					M	
	25	2.55 X10-2 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L
	25	2.4 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
	25.6	2.3 X10-2 M	DG	FOTOMTR SPCTR CHNGE PNCN	CORR HARK	46002	T	L
	25.6	2.25 X10-2 M	DG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	25	2.34 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
	25	2.55 X10-2 M	DC	REFRACTIVE INDEX	KLEV	47005	T	L
	25	2.5 X10-2 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	26	2.35 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47006	T	L
	26	2.34 X10-2 M	DG	VISUAL SPCTR CHNGE RHD6	CORR HARK	47006	T	L
	26	2.30 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
	30	2.60 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
	30	2.35 X10-2 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	30	2.35 X10-2 M	DB	FOTOMTR SOLUBLZTN OROT	KOLT STRI	48016	T	L
	30	2.3 X10-2 M	DC	UNSPEC SOLUBLZTN PDMAB	KOLT JOHN	48025	T	L
	30	2.2 X10-2 M	DC	ELECTROMOTIVE FORCE	KOLT JOHN	48025	T	L
	30	2.47 X10-2 M	DB	FOTOMTR SOLUBLZTN AZBZ	KOLT STRI	49005	T	L
	35	8. X10-1 P	BD	DENSITY	BURY PARR	35008	T	L
		3.3 X10-2 S					M	
	35.8	2.13 X10-2 M	DG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	35	1.9 X10-2 M	XG	VELOCITY OF SOUND	KUPP SURY	65028	T	L
	35	2.70 X10-2 M	DC	REFRACTIVE INDEX	KLEV	47005	T	L
	45.0	2.08 X10-2 M	DG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	45	3.05 X10-2 M	DC	REFRACTIVE INDEX	KLEV	47005	T	L
	50	2.45 X10-2 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	50	2.85 X10-2 M	DB	FOTOMTR SOLUBLZTN OROT	KOLT STRI	48016	T	L
	50	2.14 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	RAIS	52016	T	L
	50	2.1 X10-2 M	DC	FOTOMTR SOLUBLZTN AZBZ	KOLT STRI	49005	T	L
	55.0	2.08 X10-2 M	DG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	55	3.50 X10-2 M	DC	REFRACTIVE INDEX	KLEV	47005	T	L
	60	2.6 X10-2 M	DG	SOLUBLZTN TOLUENE	DEMC DUMA	60032	T	L
	60	5.8 X10-1 D	DG	SOLUBLZTN TOLUENE	DEMC	60034	T	L
		2.43 X10-2 M					M	
	60	2.3 X10-2 M	DC	FOTOMTR SOLUBLZTN OROT	MERR GETT	48024	T	L
	65	4.20 X10-2 M	DC	REFRACTIVE INDEX	KLEV	47005	T	L
	UNK	6.2 X10-1 D	DG	VISUAL SPCTR CHNGE PNCN	DEMC	60034	T	L
		2.60 X10-2 M					M	
	UNK	2.33 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
	UNK	6.0 X10-1 D	DG	METHOD NOT CITED	DEMC	62037	T	L
		2.51 X10-2 M					M	
	UNK	2.40 X10-2 M	DG	METHOD NOT CITED	HARK MITT	49006	T	L
	UNK	2.55 X10-2 M	DG	METHOD NOT CITED	ARRI PATT	53003	T	L
2.2 E-1 P BENZENE	25	2.0 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
4.4 E-2 P BENZENE	UNK	2.30 X10-2 M	DG	METHOD NOT CITED	HARK MITT	49006	T	L
6.1 E-2 P BENZENE	UNK	2.34 X10-2 M	DG	METHOD NOT CITED	HARK MITT	49006	T	L
1.00 E-1 P BENZENE	UNK	2.30 X10-2 M	DG	METHOD NOT CITED	HARK MITT	49006	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

	Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.39 E-1 P	BENZENE	UNK	2.29 X10-2 M	DG	METHOD NOT CITED	HARK MITT	49006	T	L
1.50 E-1 P	BENZENE	UNK	2.30 X10-2 M	DG	METHOD NOT CITED	HARK MITT	49006	T	L
2.65 E-2 M	K BR	25	1.55 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
1.735E-1 M	K BR	25	7.0 X10-3 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
2.52 E-2 M	K CL	25	1.59 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
6.70 E-2 M	K CL	25	1.19 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
1.005E-1 M	K CL	25	1.02 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
2.124E-1 M	K CL	25	7.1 X10-3 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
3.825E-1 M	K CL	25	4.8 X10-3 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
5.014E-1 M	K CL	25	4.1 X10-3 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
8.380E-3 M	K CL	26	1.97 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.321E-2 M	K CL	26	1.76 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.680E-2 M	K CL	26	1.69 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3.872E-2 M	K CL	26	1.29 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
4.217E-2 M	K CL	26	1.25 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
4.263E-2 M	K CL	26	1.23 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
5.471E-2 M	K CL	26	1.12 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
6.466E-2 M	K CL	26	1.07 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
6.631E-2 M	K CL	26	1.01 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
7.466E-2 M	K CL	26	9.92 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.038E-1 M	K CL	26	8.44 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.062E-1 M	K CL	26	8.30 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.199E-1 M	K CL	26	7.96 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.485E-1 M	K CL	26	7.48 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.739E-1 M	K CL	26	5.77 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
2.411E-1 M	K CL	26	5.47 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
2.617E-1 M	K CL	26	5.27 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3.142E-1 M	K CL	26	4.58 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3.335E-1 M	K CL	26	4.64 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
4.338E-1 M	K CL	26	3.53 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
5.927E-1 M	K CL	26	3.48 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1. E 0 N	K CL	30	2.1 X10-3 M	DC	FOTOMTR SOLUBLZTN OROT	KOLT STRI	49005	T	L
1. E 0 N	K CL	30	2.3 X10-3 M	DC	FOTOMTR SOLUBLZTN AZBZ	KOLT STRI	49005	T	L
1. E 0 N	K CL	30	2.4 X10-3 M	DC	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
5. E-2 N	K CL	50	1.77 X10-2 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
1. E-1 N	K CL	50	1.1 X10-2 M	DD	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
5. E 1 N	K CL	50	4. X10 3 M	DE	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
1. E 0 N	K CL	50	2.6 X10-3 M	DC	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
1. E 0 N	K CL	50	3. X10-3 M	DE	FOTOMTR SOLUBLZTN OROT	KOLT STRI	49005	T	L
1. E 0 N	K CL	50	2.3 X10-3 M	DC	FOTOMTR SOLUBLZTN AZBZ	KOLT STRI	49005	T	L
. E 0	K CL	UNK			GRAPH DATA NOT RETRIEVED	DEMC	62037		R
1.66 E-2 M	K I	25	1.81 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
2.615E-1 M	K I	25	6.3 X10-3 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
3.06 E-2 M	K NO3	25	1.54 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
1.38 E-1 M	K NO3	25	8.8 X10-3 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
3.33 E-1 M	K NO3	25	5.3 X10-3 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
1.0 E-1 M	K NO3	30	1.2 X10-2 M	DD	UNSPEC SOLUBLZTN PDMAB	KOLT JOHN	48025	T	L
1.0 E-1 M	K NO3	30	1.2 X10-2 M	DD	ELECTROMOTIVE FORCE	KOLT JOHN	48025	T	L
5.0 E-1 M	K NO3	30	5.5 X10-3 M	DC	ELECTROMOTIVE FORCE	KOLT JOHN	48025	T	L
5.0 E-1 M	K NO3	30	5. X10-3 M	DD	UNSPEC SOLUBLZTN PDMAB	KOLT JOHN	48025	T	L
1. E-1 N	K NO3	50	1.17 X10-2 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
1. E 0 N	K NO3	50	2.5 X10-3 M	DC	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
. E 0	K NO3	UNK			GRAPH DATA NOT RETRIEVED	DEMC	62037		R
. E 0	K OH	0	3.75 X10-2 W	CB	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
4. E 0 I	K OH	0	3.5 X10-2 M	CC	SPECFC CONDCTNCE GRAPH	BRAD HUFF	48004	T	L
4. E 0 I	K OH	0	3.3 X10-2 W	CD	FREEZING POINT	FINE MCBA	48011	K	L
2. E 0 I	K OH	10	2.91 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	S	L
2. E 0 I	K OH	25	2.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4. E 0 I	K OH	25	2.4 X10-2 M	CC	SPECFC CONDCTNCE GRAPH	BRAD HUFF	48004	T	L
4. E 0 I	K OH	25	2.4 X10-2 M	CB	EQUIV CONDCTNCE GRAPH	BRAD MCBA	48009	T	L
4. E 0 I	K OH	25	1.7 X10-2 W	CG	VISUAL SPCTR CHNGE RHD6	FINE MCBA	48011	T	L
4. E 0 I	K OH	25	2.5 X10-2 W	CD	VAPR PRESURE LOWERING	FINE MCBA	48011	T	L
. E 0	K OH	30	2.05 X10-2 W	CB	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
1. E 0 N	K OH	30	2.6 X10-3 M	CC	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
1. E 0 N	K OH	30	2.7 X10-3 M	CC	FOTOMTR SOLUBLZTN OROT	KOLT STRI	49005	T	L
. E 0	K OH	50	2.05 X10-2 W	CB	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
4. E 0 I	K OH	50	2.0 X10-2 M	CC	SPECFC CONDCTNCE GRAPH	BRAD HUFF	48004	T	L
4. E 0 I	K OH	70	2.2 X10-2 M	CC	SPECFC CONDCTNCE GRAPH	BRAD HUFF	48004	T	L
4. E 0 I	K OH	90	3.1 X10-2 M	CC	SPECFC CONDCTNCE GRAPH	BRAD HUFF	48004	T	L
1.87 E-2 M	K4 P207 PYRO	25	8.8 X10-3 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
5.07 E-2 M	K4 P207 PYRO	25	6.9 X10-3 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
7.42 E-2 M	K4 P207 PYRO	25	5.3 X10-3 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
1.88 E-2 M	K2 SO4	25	1.41 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
5.25 E-2 M	K2 SO4	25	1.03 X10-2 M	DB	REFRACTIVE INDEX	KLEV	48005	T	L
1.38 E 0 M	K2 SO4	25	5.9 X10-3 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
7.05 E-3 M	K2 SO4	26	1.74 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.76 E-2 M	K2 SO4	26	1.33 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
2.92 E-2 M	K2 SO4	26	1.10 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values—Continued

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
4.66 E-2 M K2 S04	26	9.12 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
6.57 E-2 M K2 S04	26	7.70 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.04 E-1 M K2 S04	26	5.94 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.42 E-1 M K2 S04	26	4.84 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.87 E-1 M K2 S04	26	4.25 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1. E-1 N K2 S04	50	1.1 X10-2 M	DD	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
5. E-1 N K2 S04	50	4.5 X10-3 M	DC	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
. E 0 K2 S04	UNK			GRAPH DATA NOT RETRIEVED	DEMC	62037		R
4. E 2 I NA CL	UNK	3.2 X10-1 D	DG	METHOD NOT CITED	DEMC	62037	T	L
		1.34 X10-2 M					M	
5.18 E-3 M NA4 P207 PYRO	26	1.65 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.39 E-2 M NA4 P207 PYRO	26	1.10 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
2.15 E-2 M NA4 P207 PYRO	26	8.56 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3.05 E-2 M NA4 P207 PYRO	26	7.47 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HAR2	47010	T	L
4. E 2 I NA2 S04	UNK	2.6 X10-1 D	DG	METHOD NOT CITED	DEMC	62037	T	L
		1.09 X10-2 M					M	
2.5 E-2 M NA2 SI03 META	60	1.3 X10-2 M	HD	FOTOMTR SOLUBLZTN OROT	MERR GETT	48024	K	L
1.25 E-2 M SI02/NA20=1.60	60	1.8 X10-2 M	HD	FOTOMTR SOLUBLZTN OROT	MERR GETT	48024	T	L
2.5 E-2 M SI02/NA20 = 1.60	60	1.4 X10-2 M	HD	FOTOMTR SOLUBLZTN OROT	MERR GETT	48024	T	L
1.0 E 1 PH OF SOLUTION	UNK	2.5 X10-2 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-5 M PINACYANOL CL (DYE)	25.8	2.17 X10-2 M	DG	FOTOMTR SPCTR CHNGE PNCN	CORR KLEV	46010	T	L
1. E-4 M PINACYANOL CL (DYE)	25.8	2.35 X10-2 M	DG	FOTOMTR SPCTR CHNGE PNCN	CORR KLEV	46010	T	L
0001				SEE CMPD NMBR IN ADDITV	CORR HARK	46015		X
0044	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
0090	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
7.0 E 0 C 0090	UNK	2.39 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
1.18 E 1 C 0090	UNK	2.48 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
2.51 E 1 C 0090	UNK	2.71 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
2.79 E 1 C 0090	UNK	2.83 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
3.29 E 1 C 0090	UNK	2.92 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
3.95 E 1 C 0090	UNK	3.12 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
4.92 E 1 C 0090	UNK	3.41 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
5.67 E 1 C 0090	UNK	3.61 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
6.20 E 1 C 0090	UNK	3.83 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
6.90 E 1 C 0090	UNK	4.20 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
7.68 E 1 C 0090	UNK	4.82 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
8.14 E 1 C 0090	UNK	5.2 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
8.63 E 1 C 0090	UNK	5.9 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
9.32 E 1 C 0090	UNK	7.1 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
1.52 E 1 C 0092	25	1.4 X10-2 M	DD	REFRACTIVE INDEX	KLEV	48005	T	L
3.01 E 1 C 0092	25	1.1 X10-2 M	DD	REFRACTIVE INDEX	KLEV	48005	T	L
4.52 E 1 C 0092	25	1.0 X10-2 M	DD	REFRACTIVE INDEX	KLEV	48005	T	L
6.45 E 1 C 0092	25	7.8 X10-3 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
0.92 E-2 M BUTANOL-1	10	2.46 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.65 E-1 M BUTANOL-1	10	2.22 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
2.42 E-1 M BUTANOL-1	10	1.95 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
3.54 E-1 M BUTANOL-1	10	1.58 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
4.20 E-1 M BUTANOL-1	10	1.21 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
4.96 E-1 M BUTANOL-1	10	1.00 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
4.9 E-5 M DECANOL-1	10	2.81 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
8.1 E-5 M DECANOL-1	10	2.76 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.56 E-4 M DECANOL-1	10	2.62 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
4.01 E-1 M ETHANOL	10	2.74 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
7.62 E-1 M ETHANOL	10	2.61 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.14 E 0 M ETHANOL	10	2.32 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.67 E 0 M ETHANOL	10	2.14 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
2.24 E 0 M ETHANOL	10	1.92 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
7.1 E-3 M HEXANOL-1	10	2.60 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
9.3 E-3 M HEXANOL-1	10	2.53 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.31 E-2 M HEXANOL-1	10	2.40 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values – Continued

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.99 E-2 M HEXANOL-1	10	2.18 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
2.70 E-2 M HEXANOL-1	10	1.85 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
3.61 E-2 M HEXANOL-1	10	1.58 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
2.17 E-3 M HEPTANOL-1	10	2.73 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
4.12 E-3 M HEPTANOL-1	10	2.58 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.00 E-2 M HEPTANOL-1	10	1.88 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1. E-1 K K ION	UNK	1.37 X10-2 M	CB	SURFACE TENSION LOG PLOT	ROE BRAS	54013	T	L
1.00 E 1 PH OF SOLUTION								
4. E 0 I K OH	0	2.8 X10-2 W	CD	FREEZING POINT	FINE MCBA	48011	T	L
1.4 E-1 I N-HEXANE								
4. E-2 K NA CL	20	1.7 X10-2 M	BC	INTERFACIAL TENSION LOGM	V VO	60025	T	L
1.05 E 1 PH OF SOLUTION								
7.15 E-4 M OCTANOL-1	10	2.65 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
9.30 E-4 M OCTANOL-1	10	2.58 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.27 E-3 M OCTANOL-1	10	2.40 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.84 E-3 M OCTANOL-1	10	2.32 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.02 E-1 M PROPANOL-1	10	2.70 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.96 E-1 M PROPANOL-1	10	2.59 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
3.56 E-1 M PROPANOL-1	10	2.44 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
5.03 E-1 M PROPANOL-1	10	2.28 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
6.95 E-1 M PROPANOL-1	10	2.09 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
8.06 E-1 M PROPANOL-1	10	1.82 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
9.80 E-1 M PROPANOL-1	10	1.67 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.39 E-4 M NONANOL-1	10	2.79 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
2.70 E-4 M NONANOL-1	10	2.69 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
3.88 E-4 M NONANOL-1	10	2.61 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
0296	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
2. E 0 I K OH								
0297	25			SEE CMPD NMBR IN ADDITV	SHIN	54003		X
2. E 0 I K OH								
2.76 E-2 M 3-METHYL BUTANOL-1	10	2.67 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
6.20 E-2 M 3-METHYL BUTANOL-1	10	2.31 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.02 E-1 M 3-METHYL BUTANOL-1	10	1.91 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.38 E-1 M 3-METHYL BUTANOL-1	10	1.61 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
1.71 E-1 M 3-METHYL BUTANOL-1	10	1.45 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH								
0044	25			SEE CMPD NMBR IN ADDITV	SHIN	54003		X
0090				SEE CMPD NMBR IN ADDITV	SHIN	54003		X
0090	25			SEE CMPD NMBR IN ADDITV	SHIN	54003		X
217 ENTRIES FOR COMPOUND								

COMPOUND NO = 92 MOL WGT - 266.5 POTASSIUM TETRADECANOATE

47005				VALUES FRM REF IN CMC	KLEV	48005		R
25	6.3	X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
25.6	6.0	X10-3 M	DG	FOTOMTR SPCTR CHNGE PNCN	CORR HARK	46002	T	L
25.8	6.4	X10-3 M	DG	FOTOMTR SPCTR CHNGE PNCN	CORR KLEV	46010	T	L
25.6	6.4	X10-3 M	DG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
25	5.9	X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
25	6.6	X10-3 M	DC	REFRACTIVE INDEX	KLEV	47005	T	L
25	5.8	X10-3 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
30	7.0	X10-3 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
35.8	5.7	X10-3 M	DG	FOTOMTR SPCTR CHNGE PNCN	CORR HARK	46002	T	L

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	35.8	5.7 X10-3 M	DG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	35	7.0 X10-3 M	DC	REFRACTIVE INDEX	KLEV	47005	T	L
	45.0	5.5 X10-3 M	DG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	45	7.4 X10-3 M	DC	REFRACTIVE INDEX	KLEV	47005	T	L
	50	7.2 X10-3 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	50	5. X10-3 M	DE	FOTOMTR SOLUBLZTN PDMAB	KOLT JOHN	46006	T	L
	50	48016		VALUES FRM REF IN CMC	KOLT STRI	49005		R
	55.0	5.5 X10-3 M	DG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	55	7.9 X10-3 M	DC	REFRACTIVE INDEX	KLEV	47005	T	L
	65	8.6 X10-3 M	DC	REFRACTIVE INDEX	KLEV	47005	T	L
	UNK	3. X10-3 M	DE	ELECTROMOTIVE FORCE	CARR JOHN	47013	T	L
	UNK	5. X10-3 M	DE	FOTOMTR SOLUBLZTN PDMAB	CARR JOHN	47013	T	L
	UNK	6.4 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	CORR HARK	46015	G	L
	UNK	6.6 X10-3 M	DG	METHOD NOT CITED	ARRI PATT	53003	T	L
8. E-3 P BENZENE	25	6.2 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
1.5 E-2 P BENZENE	25	6.1 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
2.7 E-2 P BENZENE	25	6.1 X10-3 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	50003	G	L
4.0 E-2 P BENZENE	25	6.0 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
5.4 E-2 P BENZENE	25	5.9 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
6.1 E-2 P BENZENE	25	5.9 X10-3 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	50003	G	L
8.5 E-2 P BENZENE	25	5.7 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
8.7 E-2 P BENZENE	25	5.9 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
1.04 E-1 P BENZENE	25	5.6 X10-3 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	50003	G	L
1.08 E-1 P BENZENE	25	5.7 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
1.31 E-1 P BENZENE	25	5.6 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
1.55 E-1 P BENZENE	25	5.4 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
1.82 E-1 P BENZENE	25	5.2 X10-3 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	50003	G	L
2.20 E-1 P BENZENE	25	5.1 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	TG	L
2.81 E-1 P BENZENE	25	5.1 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
3.35 E-1 P BENZENE	25	4.9 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
3.93 E-1 P BENZENE	25	5.1 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	G	L
5. E-2 N K CL	50	5.3 X10-3 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
5. E-1 N K CL	50	1.5 X10-3 M	DD	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
2. E 0 I K OH	18	7.04 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2. E 0 I K OH	25	7. X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4. E 0 I K OH	25	6. X10-3 W	CG	VISUAL SPCTR CHNGE RHD6	FINE MCBA	48011	T	L
. E 0 K OH	30	4. X10-3 W	CE	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
. E 0 K OH	50	5. X10-3 W	CE	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
1. E-3 N K OH	UNK	7. X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-2 N K OH	UNK	6. X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-1 N K OH	UNK	4.5 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1.0 E 1 PH OF SOLUTION	UNK	7.0 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
0001				SEE CMPD NMBR IN ADDITV	KLEV	48005		X
. E 0 0001				GRAPH DATA NOT RETRIEVED	KLEV	46007		R
0001	UNK			SEE CMPD NMBR IN ADDITV	CORR HARK	46015		X
. E 0 0040				GRAPH DATA NOT RETRIEVED	KLEV	46007		R
. E 0 0044				GRAPH DATA NOT RETRIEVED	KLEV	46007		R
0044	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
0090				SEE CMPD NMBR IN ADDITV	KLEV	48005		X
0090	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
0091				SEE CMPD NMBR IN ADDITV	KLEV	48005		X
. E 0 0091				GRAPH DATA NOT RETRIEVED	KLEV	46007		R
0188	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
1.9 E 1 C 0372	UNK	8. X10-3 M	DG	METHOD NOT CITED	ARRI PATT	53003	G	L
3.0 E 1 C 0372	UNK	8.2 X10-3 M	DG	METHOD NOT CITED	ARRI PATT	53003	G	L
5.6 E 1 C 0372	UNK	1.3 X10-2 M	DG	METHOD NOT CITED	ARRI PATT	53003	G	L
8.5 E 1 C 0372	UNK	2.1 X10-2 M	DG	METHOD NOT CITED	ARRI PATT	53003	G	L
9.4 E 1 C 0372	UNK	2.9 X10-2 M	DG	METHOD NOT CITED	ARRI PATT	53003	G	L
1.20 E-1 M BUTANOL-1 2. E 0 I K OH	10	5.70 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.02 E-1 M BUTANOL-1 2. E 0 I K OH	18	4.75 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.18 E-1 M BUTANOL-1 2. E 0 I K OH	18	3.68 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.92 E-1 M BUTANOL-1 2. E 0 I K OH	18	3.02 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.48 E-1 M BUTANOL-1 2. E 0 I K OH	18	2.59 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.5 E-5 M DECANOL-1 2. E 0 I K OH	18	6.78 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
8.9 E-5 M DECANOL-1 2. E 0 I K OH	18	6.10 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.91 E-4 M DECANOL-1 2. E 0 I K OH	18	5.76 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
5.5 E-1 M ETHANOL 2. E 0 I K OH	18	6.51 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.00 E 0 M ETHANOL 2. E 0 I K OH	18	5.98 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.74 E 0 M ETHANOL 2. E 0 I K OH	18	5.1 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.44 E 0 M ETHANOL 2. E 0 I K OH	18	4.52 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.96 E 0 M ETHANOL 2. E 0 I K OH	18	3.97 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.07 E-2 M HEXANOL-1 2. E 0 I K OH	18	5.64 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.59 E-2 M HEXANOL-1 2. E 0 I K OH	18	5.08 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.18 E-2 M HEXANOL-1 2. E 0 I K OH	18	4.58 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.08 E-2 M HEXANOL-1 2. E 0 I K OH	18	3.90 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.50 E-3 M HEPTANOL-1 2. E 0 I K OH	18	5.91 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
5.52 E-3 M HEPTANOL-1 2. E 0 I K OH	18	5.09 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
8.66 E-3 M HEPTANOL-1 2. E 0 I K OH	18	4.03 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1. E-3 N K OH 5. E-2 N K CL	UNK	5.5 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-3 N K OH 1. E-1 N K CL	UNK	4.5 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-3 N K OH 2. E-1 N K CL	UNK	3. X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-3 N K OH 5. E-1 N K CL	UNK	1.5 X10-3 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
1. E-3 N K OH 1. E 0 N K CL	UNK	8. X10-4 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
5.5 E-4 M OCTANOL-1 2. E 0 I K OH	18	6.47 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.11 E-3 M OCTANOL-1 2. E 0 I K OH	18	5.82 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.39 E-3 M OCTANOL-1 2. E 0 I K OH	18	5.36 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
2.45 E-3 M OCTANOL-1 2. E 0 I K OH	18	4.80 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.08 E-1 M PROPANOL-1 2. E 0 I K OH	18	5.94 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
5.84 E-1 M PROPANOL-1 2. E 0 I K OH	18	5.26 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
7.28 E-1 M PROPANOL-1 2. E 0 I K OH	18	4.71 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
8.80 E-1 M PROPANOL-1 2. E 0 I K OH	18	4.18 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.07 E 0 M PROPANOL-1 2. E 0 I K OH	18	3.52 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.25 E 0 M PROPANOL-1 2. E 0 I K OH	18	2.97 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.65 E-4 M NONANOL-1 2. E 0 I K OH	18	6.62 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
3.08 E-4 M NONANOL-1 2. E 0 I K OH	18	6.17 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
4.41 E-4 M NONANOL-1 2. E 0 I K OH	18	5.90 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
6.82 E-4 M NONANOL-1 2. E 0 I K OH	18	5.55 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
0296 2. E 0 I K OH	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
5.95 E-2 M 3-METHYL BUTANOL-1 2. E 0 I K OH	18	5.12 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
9.7 E-2 M 3-METHYL BUTANOL-1 2. E 0 I K OH	18	4.17 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.29 E-1 M 3-METHYL BUTANOL-1 2. E 0 I K OH	18	3.48 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
1.83 E-1 M 3-METHYL BUTANOL-1 2. E 0 I K OH	18	2.64 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55004	T	L
0090 113 ENTRIES FOR COMPOUND				SEE CMPD NMBR IN ADDITV	SHIN	54003		X
COMPOUND NO = 93 MOL WGT - 252.2 OCTYL TRIMETHYL AMMONIUM BROMIDE								
	20	2.82 X10-1 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
	25	1.4 X10-1 M	CD	REFRACTIVE INDEX	KLEV	48005	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	25	1.3 X10-1 M	CE	EQUIV CONDCTNCE GRAPH	SCOT TART	43003	K	L
	30	2.24 X10-1 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	40	1.5 X10-1 M	CE	EQUIV CONDCTNCE GRAPH	SCOT TART	43003	K	L
	60	1.3 X10-1 M	CE	EQUIV CONDCTNCE GRAPH	SCOT TART	43003	K	L
1.25 E-2 M K BR	30	2.26 X10-1 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
2.5 E-2 M K BR	30	2.20 X10-1 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
1.0 E-1 M NA CL	20	2.69 X10-1 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
2.5 E-1 M NA CL	20	2.54 X10-1 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
5.0 E-1 M NA CL	20	2.34 X10-1 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
11 ENTRIES FOR COMPOUND								
COMPOUND NO = 94 MOL WGT – 266.3 NONYL TRIMETHYL AMMONIUM BROMIDE								
	30	1.43 X10-1 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
1.25 E-2 M K BR	30	1.40 X10-1 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 95 MOL WGT – 280.3 DECYL TRIMETHYL AMMONIUM BROMIDE								
		49006		VALUES FRM REF IN CMC	CORR HARK	46004		R
		47006		VALUES FRM REF IN CMC	CORR HARK	46005		R
	25	6.8 X10-2 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
	25	6.5 X10-2 M	XB	UNSPECIFIED CONDUCTANCE	KLEV	53010	T	L
	25	7.0 X10-2 W	CC	EQUIV CONDCTNCE GRAPH	SCOT TART	43003	P	L
	25	6.46 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	2
	26	6.43 X10-2 M	BG	VISUAL SPCTR CHNGE SKYB	CORR HARK	47006	T	L
	26	6.35 X10-2 M	BG	VISUAL SPCTR CHNGE EOSN	CORR HARK	47006	T	L
	26	6.10 X10-2 M	BG	VISUAL SPCTR CHNGE FL	CORR HARK	47006	T	L
	26	6.02 X10-2 M	BG	VISUAL SPCTR CHNGE INPX	CORR HARK	47006	T	L
	26	6.36 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
	30	6.3 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	40	7.0 X10-2 W	CC	EQUIV CONDCTNCE GRAPH	SCOT TART	43003	P	L
	60	7.5 X10-2 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
	60	8.0 X10-2 W	CC	EQUIV CONDCTNCE GRAPH	SCOT TART	43003	P	L
	UNK	7.00 X10-2 M	BC	DEBYE PLT LIGHT SCATTER	DEBY	49001	T	L
	UNK	6.4 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
	UNK	6.86 X10-2 M	BC	METHOD NOT CITED	WASI HUBB	64043	T	L
2.15 E-2 M BA CL2	26	5.84 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
5.64 E-2 M BA CL2	26	5.11 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
1.00 E-1 M BA CL2	26	4.54 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
1.43 E-1 M BA CL2	26	3.88 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
2.42 E-1 M BA CL2	26	3.29 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
1.9 E-1 M BUTANOL-1	UNK	4.5 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
3.9 E-1 M BUTANOL-1	UNK	3.0 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
5.4 E-1 M BUTANOL-1	UNK	2.1 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
3.8 E-1 M DIOXANE	UNK	6.5 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
9.6 E-1 M DIOXANE	UNK	6.7 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
1.96 E 0 M DIOXANE	UNK	6.9 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
1.25 E-1 M ETHYLENE GLYCOL	UNK	6.4 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
1.38 E 0 M ETHYLENE GLYCOL	UNK	6.5 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
2.83 E 0 M ETHYLENE GLYCOL	UNK	6.6 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
1.21 E 0 M ETHANOL	UNK	6.4 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
2.29 E 0 M ETHANOL	UNK	5.6 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
3.08 E 0 M ETHANOL	UNK	5.6 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
3.63 E 0 M ETHANOL	UNK	5.7 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
4.08 E 0 M ETHANOL	UNK	5.8 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
4.62 E 0 M ETHANOL	UNK	6.0 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
1.25 E-2 M K BR	30	5.9 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
2.5 E-2 M K BR	30	5.0 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
5.0 E-2 M K BR	30	4.5 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
1.30 E-2 M K BR	UNK	6.72 X10-2 M	BC	DEBYE PLT LIGHT SCATTER	DEBY	49001	T	L
1.4 E-1 M METHANOL	UNK	6.3 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
2.9 E-1 M METHANOL	UNK	6.1 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
3.6 E-1 M METHANOL	UNK	5.9 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
8.8 E-1 M METHANOL	UNK	5.9 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
1.88 E 0 M METHANOL	UNK	6.3 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
2.88 E 0 M METHANOL	UNK	6.5 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
4.04 E 0 M METHANOL	UNK	6.8 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
5.86 E 0 M METHANOL	UNK	8.2 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
7. E-2 M NA CL	20	6.30 X10-2 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
1.0 E-1 M NA CL	20	5.95 X10-2 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
2.5 E-1 M NA CL	20	4.62 X10-2 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
5.0 E-1 M NA CL	20	3.54 X10-2 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	62004	L	L
4.96 E-2 M NA CL	26	5.69 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
1.32 E-1 M NA CL	26	5.05 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
2.19 E-1 M NA CL	26	4.38 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values — Continued

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
3.22 E-1 M NA CL	26	3.70 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
5.65 E-1 M NA CL	26	3.15 X10-2 M	BG	VISUAL SPCTR CHNGE	CORR HARK	47010	T	L
4.3 E-1 M PROPANOL-1	UNK	5.1 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
9.4 E-1 M PROPANOL-1	UNK	3.9 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
1.46 E 0 M PROPANOL-1	UNK	3.1 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
2.04 E 0 M PROPANOL-1	UNK	2.1 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
2.37 E 0 M PROPANOL-1	UNK	1.9 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK MITT	49006	G	L
5.00 E 2 Y PRESSURE	25	6.70 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1.000E 3 Y PRESSURE	25	6.70 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1.500E 3 Y PRESSURE	25	6.50 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
3.000E 3 Y PRESSURE	25	5.56 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
68 ENTRIES FOR COMPOUND								
COMPOUND NO = 96 MOL WGT = 294.3 UNDECYL TRIMETHYL AMMONIUM BROMIDE								
	30	3.6 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
1.25 E-2 M K BR	30	3.1 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
2.5 E-2 M K BR	30	2.7 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 97 MOL WGT = 308.4 DODECYL TRIMETHYL AMMONIUM BROMIDE								
	01.0	1.6 X10-2 M	BD	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	UN	1.48 X10-2 M	BC	METHOD NOT CITED	WASI HUBB	64043	T	L
	10.0	1.5 X10-2 M	BD	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	20	1.59 X10-2 M	BB	INTERFACIAL TENSION LOGM	HAYD PHIL	58012	L	D
	25	4.48 X10-1 D	BB	TURBIDITY PLT LITE SCATR	ANAC JOHN	64017	K	D
		1.452X10-2 M					M	
	25	1.44 X10-2 N	BA	EQUIV CONDCTNCE GRAPH	VOEK TART	55006	T	D
	25	1.64 X10-2 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
	25	1.40 X10-2 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
	25	1.58 X10-2 W	CB	SPECFC CONDCTNCE GRAPH	SCOT TART	43003	P	L
	25.0	1.4 X10-2 M	BD	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	25	1.564X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	D
	25	1.42 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	BRUN HOLT	61016	T	D
	30	1.47 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	40	1.65 X10-2 W	CB	SPECFC CONDCTNCE GRAPH	SCOT TART	43003	P	L
	40.0	1.5 X10-2 M	BD	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	50	1.73 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	55.0	1.6 X10-2 M	BD	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	60	1.9 X10-2 M	CD	REFRACTIVE INDEX	KLEV	48005	T	L
	60	1.90 X10-2 W	CC	SPECFC CONDCTNCE GRAPH	SCOT TART	43003	P	L
	70	1.94 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	UNK	4.1 X10-2 D	HG	SURFACE TENSION UNSPEC	WAN	66018	T	L
	UNK	1.51 X10-2 M	BC	DEBYE PLT LIGHT SCATTER	DEBY	49001	T	L
1. E-1 W PHENOL	25	4.62 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
6.25 E-3 M CA BR2	UNK	1.13 X10-2 M	BC	METHOD NOT CITED	WASI HUBB	64043	T	L
1.0 E 0 M H NO3	25	6.0 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		1.94 X10-5 M					M	
1.0 E 0 M H NO3	25	9.5 X10-5 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		3.08 X10-6 M					M	
1.25 E-2 M K BR	30	1.08 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
2.5 E-2 M K BR	30	9.1 X10-3 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
3.403E-2 M K BR	30	8.48 X10-3 M	BC	DEBYE PLT LIGHT SCATTER	DEBY	49001	T	L
5.0 E-2 M K BR	30	7.0 X10-3 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
3.403E-2 M K BR	45	9.31 X10-3 M	BC	DEBYE PLT LIGHT SCATTER	DEBY	49001	T	L
3.403E-2 M K BR	60	1.201X10-2 M	BC	DEBYE PLT LIGHT SCATTER	DEBY	49001	T	L
1.25 E-2 M K BR	UNK	1.16 X10-2 M	BC	METHOD NOT CITED	WASI HUBB	64043	T	L
1.30 E-2 M K BR	UNK	1.05 X10-2 M	BC	DEBYE PLT LIGHT SCATTER	DEBY	49001	T	L
1.0 E 0 M K CL	25	4.0 X10-4 M	CE	SURFACE TNSN LINEAR PLOT	COLI	50012	T	L
1.0 E 0 M K CL	25	3.2 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		1.03 X10-5 M					M	
1.0 E 0 M K CL	25	5.3 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		1.71 X10-5 M					M	
1.0 E 0 M K NO3	25	9.3 X10-5 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		3.01 X10-6 M					M	
1.0 E 0 M K NO3	25	3.8 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		1.23 X10-5 M					M	
1.0 E 0 M K OH	25	3.5 X10-5 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		1.13 X10-6 M					M	
1.0 E 0 M K OH	25	3.8 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		1.23 X10-5 M					M	
4.17 E-3 M LA BR3	UNK	1.17 X10-2 M	BC	METHOD NOT CITED	WASI HUBB	64043	T	L
2. E-1 M NA BR	10.0	2.7 X10-3 M	BC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
1.00 E-1 M NA BR	25	1.38 X10-1 D	BB	TURBIDITY PLT LITE SCATR	ANAC JOHN	64017	K	3
		4.474X10-3 M					M	

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2. E-1 M NA BR	25	2.0 X10-3 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
2. E-1 M NA BR	25.0	2.5 X10-3 M	BC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
4. E-1 M NA BR	25	1.0 X10-3 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
5.02 E-1 M NA BR	25	6.2 X10-2 D	BB	TURBIDITY PLT LITE SCATR	ANAC JOHN	64017	K	3
		2.01 X10-3 M					M	
8. E-1 M NA BR	25	6.3 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
5.02 E-1 W NA BR	31.5	1.9 X10-3 M	BD	DEBYE PLT LIGHT SCATTER	ANAC GHOS	63016	T	L
2. E-1 M NA BR	40.0	3.0 X10-3 M	BC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
2. E-1 M NA BR	55.0	3.2 X10-3 M	BC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
7. E-2 M NA CL	20	8.7 X10-3 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	60011	L	L
1.0 E-1 M NA CL	20	7.5 X10-3 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	60011	L	L
2.5 E-1 M NA CL	20	4.25 X10-3 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	60011	L	L
5.0 E-1 M NA CL	20	2.57 X10-3 M	BB	INTERFACIAL TENSION LOGM	HAYD TAYL	60011	L	L
5.00 E 2 Y PRESSURE	25	1.61 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1.000E 3 Y PRESSURE	25	1.616X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1.500E 3 Y PRESSURE	25	1.56 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
3.000E 3 Y PRESSURE	25	1.272X10-2 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
5. E-1 M UREA	25	1.56 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	BRUN HOLT	61016	T	3
2.0 E 0 M UREA	25	2.04 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	BRUN HOLT	61016	T	3
6.0 E 0 M UREA	25	4.54 X10-2 M	BA	EQUIV CONDCTNCE GRAPH	BRUN HOLT	61016	T	3
1.0 E 1 C 0115	25	6.3 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
2.5 E 1 C 0115	25	2.5 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
5.0 E 1 C 0115	25	1.25 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
1.0 E 1 C 0116	25	6.3 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
2.5 E 1 C 0116	25	2.0 X10-4 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
5.0 E 1 C 0116	25	8.0 X10-5 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
1.0 E 1 C 0325	25	8.0 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
2.5 E 1 C 0325	25	6.0 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
5.0 E 1 C 0325	25	4.0 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
7.5 E 1 C 0325	25	2.0 X10-4 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
1.0 E 1 C 0327	25	2.0 X10-3 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
2.5 E 1 C 0327	25	2.5 X10-4 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
5.0 E 1 C 0327	25	1.25 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
5.0 E 0 M NH3	25	3.0 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
1. E-1 M NH4 CL		9.72 X10-6 M					M	
5.00 E 2 Y PRESSURE	25	5.00 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1. E-1 W PHENOL								
1.000E 3 Y PRESSURE	25	5.03 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1. E-1 W PHENOL								
1.500E 3 Y PRESSURE	25	4.88 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1. E-1 W PHENOL								
3.000E 3 Y PRESSURE	25	3.88 X10-3 W	BA	SPECFC CONDCTNCE GRAPH	TUDD ALEX	62035	T	3
1. E-1 W PHENOL								
1.0 E 1 C 0327	25	3.0 X10-4 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
2. E-1 M NA BR								
1.0 E 1 C 0327	25	1.25 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
4. E-1 M NA BR								
1.0 E 1 C 0327	25	1.0 X10-4 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
8. E-1 M NA BR								
2.5 E 1 C 0327	25	2.0 X10-4 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
2. E-1 M NA BR								
2.5 E 1 C 0327	25	1.25 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
4. E-1 M NA BR								
2.5 E 1 C 0327	25	1.0 X10-4 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
8. E-1 M NA BR								
5.0 E 1 C 0327	25	1.25 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
2. E-1 M NA BR								
5.0 E 1 C 0327	25	1.25 X10-4 M	BC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
4. E-1 M NA BR								
5.0 E 1 C 0327	25	1.0 X10-4 M	BD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
8. E-1 M NA BR								
90 ENTRIES FOR COMPOUND								
COMPOUND NO = 98 MOL WGT = 336.4 TETRADECYL TRIMETHYL AMMONIUM BROMIDE								
	30	3.51 X10-3 M	BB	SURFACE TENSION LOG PLOT	VENA NAUM	64001	T	L
	30	3.6 X10-3 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	50	4.2 X10-3 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	70	4.2 X10-3 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	UNK	8.2 X10-2 D	HG	SURFACE TENSION UNSPEC	WAN	66018	T	L
1.25 E-2 M K BR	30	2.1 X10-3 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
2.5 E-2 M K BR	30	1.6 X10-3 M	CD	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
5.0 E-2 M K BR	30	1.3 X10-3 M	CD	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
1.30 E-2 M K BR	UNK	1.76 X10-3 M	BC	DEBYE PLT LIGHT SCATTER	DEBY	49001	T	L
5. E-2 M NA BR	30	4.2 X10-4 M	BC	SURFACE TENSION LOG PLOT	VENA NAUM	64001	TA	L
10 ENTRIES FOR COMPOUND								

Concentration units: A — mol %; B — vol % solvent; C — mol % surfactant mixture; D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M — molar; N — normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C.	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 99 MOL WGT = 364.5 HEXADECYL TRIMETHYLAMMONIUM BROMIDE								
				QUESTIONABLE CRITERION	DEBY ANAC	51001		R
				GRAPH DATA NOT RETRIEVED	COHE VASS	61027		R
	25	8.0 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
	25	9.8 X10-4 M	CC	SPECFC CONDCTNCE GRAPH	SCOT TART	43003	P	L
	25	5. X10-4 W	HG	VISUAL SPCTR CHNGE	FINE MCBA	48011	T	L
	25	9.20 X10-4 W	BA	SPECFC CONDCTNCE GRAPH	CZER	66030	T	2
	25	3.3 X10-2 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
	25	3.3 X10-2 D	HG	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	30	4. X10-4 M	CE	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	30	3.0 X10-2 D	BB	REFRACTIVE INDEX	STEI COHE	65012	T	L
		8.23 X10-4 M					M	
	35	9.5 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	HART COLL	36001	P	D
	35	9.8 X10-4 M	BB	SPECFC CONDCTNCE GRAPH	HART COLL	36001	P	D
	35	9. X10-4 M	BD	EQUIV CONDCTNCE GRAPH	HART COLL	36001	T	L
	35	1.020X10-3 W	BA	SPECFC CONDCTNCE GRAPH	CZER	66030	T	D
	35	9.1 X10-4 M	XG	VELOCITY OF SOUND	KUPP SURY	65028	T	L
	45	1.155X10-3 W	BA	SPECFC CONDCTNCE GRAPH	CZER	66030	T	3
	50	1.5 X10-3 M	CD	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	55	1.320X10-3 W	BA	SPECFC CONDCTNCE GRAPH	CZER	66030	T	3
	60	1.0 X10-3 M	CD	REFRACTIVE INDEX	KLEV	48005	T	L
	70	1.5 X10-3 M	CD	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
	UNK	5.1 X10-2 D	HG	SURFACE TENSION UNSPEC	WAN	66018	T	L
E 0 NH4 BR	30			QUESTIONABLE CRITERION	STEI COHE	65012		R
. E 0 H BR	30			QUESTIONABLE CRITERION	STEI COHE	65012		R
1.0 E 0 M H NO3	25	7.0 X10-5 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		1.92 X10-6 M					M	
1.0 E 0 M H NO3	25	3.8 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		1.04 X10-5 M					M	
3. E-3 M K BR	30	8.2 X10-4 M	BD	TURBIDITY PLT LITE SCATR	TART	59010	T	L
E 0 K BR	30			QUESTIONABLE CRITERION	STEI COHE	65012		R
1.0 E 0 M K CL	25	6.0 X10-5 M	CE	SURFACE TNSN LINEAR PLOT	COLI	50012	T	L
1.0 E 0 M K CL	25	2.0 X10-4 M	CE	SURFACE TENSION MINIMUM	COLI	50012	T	L
1.0 E 0 M K CL	25	7.4 X10-5 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		2.03 X10-6 M					M	
1.0 E 0 M K CL	25	3.5 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		9.60 X10-6 M					M	
1.0 E 0 M K NO3	25	7.4 X10-5 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	
1.0 E 0 M K NO3	25	6.5 X10-5 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		1.78 X10-6 M					M	
		2.03 X10-6 M					M	
1.0 E 0 M K NO3	25	4.2 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	
1.0 E 0 M K NO3	25	2.3 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		6.31 X10-6 M					M	
		1.15 X10-5 M					M	
1.0 E 0 M K OH	25	2.1 X10-5 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		5.76 X10-7 M					M	
1.0 E 0 M K OH	25	1.3 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
		3.56 X10-6 M					M	
. E 0 K OH	30			QUESTIONABLE CRITERION	STEI COHE	65012		R
. E 0 (C4H9)4 N BR /NORMAL	30			QUESTIONABLE CRITERION	STEI COHE	65012		R
. E 0 (C2H5)4 N BR	30			QUESTIONABLE CRITERION	STEI COHE	65012		R
. E 0 (CH3) N BR	30			QUESTIONABLE CRITERION	STEI COHE	65012		R
. E 0 (C3H7)4 N BR /NORMAL	30			QUESTIONABLE CRITERION	STEI COHE	65012		R
1.0 E 1 C 0117	25	8.0 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
2.5 E 1 C 0117	25	4.5 X10-5 M	CC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
5.0 E 1 C 0117	25	1.4 X10-5 M	CD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
. E 0 0427				GRAPH DATA NOT RETRIEVED	LANG	53005		R
1.0 E 1 C 0535	25	8.0 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
2.5 E 1 C 0535	25	3.0 X10-5 M	CD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
5.0 E 1 C 0535	25	1.3 X10-5 M	CD	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
5.0 E 0 M NH3	25	8.0 X10-5 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
1. E-1 M NH4 CL		2.19 X10-6 M					M	
5.0 E 0 M NH3	25	1.5 X10-4 D	CG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
1. E-1 M NH4 CL		4.11 X10-6 M					M	
1.00 E 0 PH OF SOLUTION	30	6. X10-5 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
1.50 E-5 M BROMPHENOL BLUE								
1.00 E 0 PH OF SOLUTION	30	6. X10-5 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
1.50 E-5 M BROMPHENOL BLUE								
1.00 E 0 PH OF SOLUTION	30	1.2 X10-4 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
3.00 E-5 M BROMPHENOL BLUE								
1.00 E 0 PH OF SOLUTION	30	1.1 X10-4 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
3.00 E-5 M BROMPHENOL BLUE								
1.00 E 0 PH OF SOLUTION	30	1.2 X10-4 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.00 E 0 PH OF SOLUTION	30	1.1 X10-4 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
3.00 E-5 M BROMPHENOL BLUE								
3.00 E-5 M BROMPHENOL BLUE								
1.00 E 0 PH OF SOLUTION	30	1.2 X10-4 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
3.00 E-5 M BROMPHENOL BLUE								
6.50 E 0 PH OF SOLUTION	30	1.1 X10-4 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
1.50 E-5 M BROMPHENOL BLUE								
6.50 E 0 PH OF SOLUTION	30	1.2 X10-4 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
1.50 E-5 M BROMPHENOL BLUE								
6.50 E 0 PH OF SOLUTION	30	1.2 X10-4 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
1.50 E-5 M BROMPHENOL BLUE								
6.50 E 0 PH OF SOLUTION	30	1.1 X10-4 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
1.50 E-5 M BROMPHENOL BLUE								
6.50 E 0 PH OF SOLUTION	30	2.5 X10-5 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
3.75 E-6 M BROMPHENOL BLUE								
6.50 E 0 PH OF SOLUTION	30	3.5 X10-5 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
3.75 E-6 M BROMPHENOL BLUE								
6.50 E 0 PH OF SOLUTION	30	6.8 X10-5 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
7.50 E-6 M BROMPHENOL BLUE								
6.50 E 0 PH OF SOLUTION	30	5.0 X10-5 M	CG	FOTOMTR SPCTR CHNGE BRPB	COLI	51008	T	L
7.50 E-6 M BROMPHENOL BLUE								
66 ENTRIES FOR COMPOUND								
COMPOUND NO = 100 MOL WGT - 272.2 OCTYL PYRIDINIUM BROMIDE								
	20	2.3 X10-1 W	CC	SURFACE TENSION LOG PLOT	BURY BROW	52011	T	L
	30	1.93 X10-1 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
5.0 E-2 M K BR	30	1.89 X10-1 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 101 MOL WGT - 314.3 UNDECYL PYRIDINIUM BROMIDE								
	30	4.2 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
5.0 E-2 M K BR	30	3.1 X10-2 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 102 MOL WGT - 356.4 TETRADECYL PYRIDINIUM BROMIDE								
	14.0	3.2 X10-3 M	BC	KRAFFT POINT SOLUBILITY	ADDI FURM	56019	T	L
	18.5	3.1 X10-3 M	BC	INTERFACIAL TNSN UNSPEC	ADDI FURM	56019	T	L
	25	2.9 X10-3 M	CC	SPECFC CONDCTNCE GRAPH	BENT SPAR	66038	T	L
	30	2.57 X10-3 M	DD	SURFACE TENSION LOG PLOT	VENA NAUM	64001	T	L
	30	4.1 X10-3 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
2.5 E-2 M K BR	30	2.0 X10-3 M	CC	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
5.0 E-2 M K BR	30	1.5 X10-3 M	CD	TURBIDITY PLT LITE SCATR	TRAP HERM	55009	T	L
5. E-2 M NA BR	30	2.4 X10-4 M	BC	SURFACE TENSION LOG PLOT	VENA NAUM	64001	TA	L
8 ENTRIES FOR COMPOUND								
COMPOUND NO = 103 MOL WGT - 234.3 HEXYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	1.07 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	20	7.5 X10-2 M	BE	SURFACE TENSION LOG PLOT	MULL METC	62015	T	L
	25	1.00 X10-1 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	7.8 X10-2 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 104 MOL WGT - 262.4 OCTYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	9.3 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	7.5 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 105 MOL WGT - 394.6 OCTYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	1.19 X10-2 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	18	7.6 X10-3 M	BC	UNSPEC LIGHT SCATTER	GOOD OTTE	61004	T	L
	18	4.45 X10-1 D	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64023	T	L
		1.127X10-2 M					M	
	20	3.8 X10-1 D	BD	DENSITY	FLOR	66020	T	L
		9.63 X10-3 M					M	
	25	9.9 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	9.8 X10-3 M	BB	SURFACE TENSION LOG PLOT	GOOD OTTE	61004	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	30	3.50 X10-1 D	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64023	T	L
		8.869X10-3 M					M	
	35	7.7 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	40	2.85 X10-1 D	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64023	T	L
		7.222X10-3 M					M	
	45	6.7 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 106 MOL WGT - 526.7 OCTYL /OXYETHYLENE/ 9 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	1.6 X10-2 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	1.3 X10-2 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	1.1 X10-2 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 107 MOL WGT - 290.4 DECYL /OXYETHYLENE/ 3 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	7.3 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	6.0 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	5.6 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 108 MOL WGT - 422.6 DECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	1.14 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	20	9.2 X10-4 M	BD	SURFACE TENSION LOG PLOT	CARL CHAL	64009	T	L
	20	9.6 X10-4 M	BC	REFRACTIVE INDEX	DONB JAN	63021	T	L
	23.5	9.5 X10-4 M	BG	FOTOMTR SPCTR CHNG I2	CARL CHAL	64009	T	L
	25	9.0 X10-4 M	DD	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	3.80 X10-2 D	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64023	T	L
		8.991X10-4 M					M	
	35	6.6 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	2.79 X10-2 D	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64023	T	L
		6.601X10-4 M					M	
	45	6.4 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	L
	45	1.83 X10-2 D	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64023	T	P
		4.330X10-4 M					M	
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 109 MOL WGT - 554.8 DECYL /OXYETHYLENE/ 9 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	1.4 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	1.3 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	1.1 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 110 MOL WGT - 450.7 DODECYL /OXYETHYLENE/ 6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	1.08 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	15	1.08 X10-4 M	BB	SURFACE TENSION LOG PLOT	GOOD OTTE	61004	T	L
	20	8.2 X10-5 M	BC	SURFACE TENSION LOG PLOT	CARL CHAL	64009	T	L
	20	7.2 X10-5 M	BG	FOTOMTR SPCTR CHNG I2	CARL CHAL	64009	T	L
	20	1.00 X10-4 M	BC	REFRACTIVE INDEX	DONB JAN	63021	T	L
	25	8.7 X10 5 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	25	8.7 X10-5 M	BB	SURFACE TENSION LOG PLOT	GOOD OTTE	61004	T	L
	35	7.2 X10-5 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	64003	T	3
	35	7.2 X10-5 M	BB	SURFACE TENSION LOG PLOT	GOOD OTTE	61004	T	L
9 ENTRIES FOR COMPOUND								
COMPOUND NO = 111 MOL WGT - 272.3 LITHIUM DODECYL 1 SULFATE								
	10	7.0 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25	7.9 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25	8.77 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	MYSE PRIN	59002	TL	2
	25	8.93 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	MYSE PRIN	59002	TL	2
	40	1.05 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	MEGU KOND	56020	T	L
	45	8.0 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	50	6.9 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	RAIS	52016	T	L
6.75 E-2 M NA CL	40	2.5 X10-3 M	CG	FOTOMTR SPCTR CHNGE RHD6	MEGU KOND	56020	T	L
1. E-5 M RHODAMINE 6GPC	40	9.7 X10-3 M	CG	FOTOMTR SPCTR CHNGE RHD6	MEGU KOND	56020	T	L
5. E-6 M RHODAMINE 6GPC	40	9.6 X10-3 M	CG	FOTOMTR SPCTR CHNGE RHD6	MEGU KOND	56020	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
3. E O M UREA	10	8.0 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	10	1.0 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
1. E O M UREA	25	8.0 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
2. E O M UREA	25	8.2 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E O M UREA	25	8.8 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
4.5 E O M UREA	25	9.4 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	25	1.0 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E O M UREA	45	8.9 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	45	1.05 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
19 ENTRIES FOR COMPOUND								
COMPOUND NO = 112 MOL WGT - 339.5 TETRAMETHYL AMMONIUM DODECYL 1 SULFATE								
	10	4.8 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25	5.50 X10-3 M	DA	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
	25	4.8 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25	5.41 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	MYSE PRIN	59002	TL	2
	25	5.52 X10-3 M	BA	SPECFC CONDCTNCE GRAPH	MYSE PRIN	59002	TL	2
	30	5.7 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	MEGU KOND	59026	T	L
	30	4.5 X10-3 M	CG	FOTOMTR SPCTR CHNGE RHD6	MEGU KOND	59026	T	L
	45	6.3 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E O M UREA	10	6.6 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	10	1.0 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
1. E O M UREA	25	5.0 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
2. E O M UREA	25	5.8 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E O M UREA	25	6.9 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
4.5 E O M UREA	25	7.9 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	25	1.0 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E O M UREA	45	7.9 X10-3 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	45	1.08 X10-2 M	BB	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
17 ENTRIES FOR COMPOUND								
COMPOUND NO = 113 MOL WGT - 420.5 SODIUM DODECYL TRI-OXYETHYLENE SULFATE								
	01.0	1.25 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	10	1.1 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25	1.0 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	45	1.2 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	50	1.97 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	P
	55.0	1.4 X10-4 M	CD	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
3. E O M UREA	10	1.55 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	10	2.85 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E O M UREA	25	1.5 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	25	2.5 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E O M UREA	45	1.93 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	45	2.70 X10-4 M	CC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
12 ENTRIES FOR COMPOUND								
COMPOUND NO = 114 MOL WGT - 1,059.4 SODIUM DODECYL /OXYETHYLENE/17.5 SULFATE								
	01.0	7.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	10	6.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25	6.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	45	4.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	55.0	4.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
3. E O M UREA	10	1.3 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	10	2.48 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E O M UREA	25	1.2 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	25	2.2 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E O M UREA	45	7.02 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E O M UREA	45	1.41 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
11 ENTRIES FOR COMPOUND								
COMPOUND NO = 115 MOL WGT - 494.7 DODECYL /OXYETHYLENE/7 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS								
	62019			VALUES FRM REF IN CMC	SCHI ATLA	62020		R
	01.0	1.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	05.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	05.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	10.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	10	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
	25.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	25	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	40.0	3.2 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	40.0	62019		VALUES FRM REF IN CMC	SCHI	63026		R
	45	2.8 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	45.0	2.8 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	55.0	2.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
3. E 0 M UREA	10	1.2 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	10	2.08 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E 0 M UREA	25	6.25 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	25	1.25 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E 0 M UREA	45	3.4 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	45	5.6 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
2.5 E 1 I 0001	05.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 1 I 0001	05.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 1 I 0001	05.0	1.5 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 1 I 0001	05.0	3.0 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
2.5 E 1 I 0001	25.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 1 I 0001	25.0	5.1 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 1 I 0001	25.0	7.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 1 I 0001	25.0	2.0 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
2.5 E 1 I 0001	45.0	2.8 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 1 I 0001	45.0	3.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 1 I 0001	45.0	4.2 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 1 I 0001	45.0	1.3 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
0097	25			SEE CMPD NMBR IN ADDITV	SCHI	66025		X
34 ENTRIES FOR COMPOUND								

COMPOUND NO = 116 MOL WGT - 1,508.1 DODECYL /OXYETHYLENE/30 ALCOHOL
REDUCED POLYDISPERSION OF HEAD GROUPS

	64020			VALUES FRM REF IN CMC	SCHI	63026		R
	62019			VALUES FRM REF IN CMC	SCHI	63026		R
	62019			VALUES FRM REF IN CMC	SCHI ATLA	62020		R
	01.0	1.20 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	01.0	1.20 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	05.0	1.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	05.0	1.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	05.0	1.0 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	10.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	10	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
	25.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	25	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	40.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	40.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	45	4.8 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	45.0	4.8 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	55.0	4.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M LI CL	25	4.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
4.3 E-1 M NA CL	01.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M NA CL	01.0	7.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
4.3 E-1 M NA CL	05.0	7.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M NA CL	05.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
4.3 E-1 M NA CL	10.0	5.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M NA CL	10.0	3.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
4.3 E-1 M NA CL	25	3.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
8.6 E-1 M NA CL	25	2.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
4.3 E-1 M NA CL	40.0	2.0 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M NA CL	40.0	1.2 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
4.3 E-1 M NA CL	55.0	1.3 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M NA CL	55.0	8. X10-6 M	EE	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 N NA2 SO4	01.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 N NA2 SO4	05.0	4.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 N NA2 SO4	10.0	2.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
4.3 E-1 M NA2 SO4	25	1.2 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
8.6 E-1 N NA2 SO4	40.0	6. X10-6 M	EE	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 N NA2 SO4	55.0	4. X10-6 M	EE	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M NA CNS	01.0	9.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M NA CNS	05.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M NA CNS	10.0	6.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M NA CNS	25	5.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
8.6 E-1 M NA CNS	40.0	4.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M NA CNS	55.0	3.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
8.6 E-1 M (CH3)4 N CL	25	3.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E 0 M UREA	10	3.6 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	10	7.2 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
3. E 0 M UREA	25	1.6 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	25	2.5 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E 0 M UREA	45	6.7 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	45	9.45 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
2.5 E 0 C 0001	05.0	1.0 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 0 C 0001	05.0	1.6 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 0 C 0001	05.0	2.5 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 0 C 0001	05.0	7.0 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
2.5 E 0 C 0001	25.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 0 C 0001	25.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 0 C 0001	25.0	1.6 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 0 C 0001	25.0	4.6 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
2.5 E 0 C 0001	45.0	4.8 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 0 C 0001	45.0	6.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 0 C 0001	45.0	9.6 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 0 C 0001	45.0	2.4 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
0097	25			SEE CMPD NMBR IN ADDITV	SCHI	66025		X
8.6 E-1 M LI CL 3. E 0 M UREA	25	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
8.6 E-1 M LI CL 6. E 0 M UREA	25	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
4.3 E-1 M NA CL 3. E 0 M UREA	25	4.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
4.3 E-1 M NA CL 6. E 0 M UREA	25	1.0 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
8.6 E-1 M NA CL 3. E 0 M UREA	25	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
8.6 E-1 M NA CL 6. E 0 M UREA	25	1.2 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
4.3 E-1 M NA2 S04 3. E 0 M UREA	25	2.9 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
4.3 E-1 M NA2 S04 6. E 0 M UREA	25	3.6 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
8.6 E-1 M NA CNS 3. E 0 M UREA	25	8.7 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
8.6 E-1 M NA CNS 6. E 0 M UREA	25	1.1 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
8.6 E-1 M (CH3)4 N CL 3. E 0 M UREA	25	5.7 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
8.6 E-1 M (CH3)4 N CL 6. E 0 M UREA	25	1.0 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
76 ENTRIES FOR COMPOUND								
COMPOUND NO = 117 MOL WGT - 1,564.2 HEXADECYL /OXYETHYLENE/30 ALCOHOL REDUCED POLYDISPERSION OF HEAD GROUPS								
	01.0	3.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	05.0	2.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	10.0	2.0 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	10	2.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	25	1.4 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
	25.0	1.1 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	25	1.1 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	40.0	6. X10-6 M	EE	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
	45	5.0 X10-6 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
	55.0	4. X10-6 M	EE	SURFACE TENSION LOG PLOT	SCHI	63026	L	L
3. E 0 M UREA	10	3.2 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	10	4.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E 0 M UREA	25	1.6 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	25	2.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
3. E 0 M UREA	45	6.35 X10-6 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
6. E 0 M UREA	45	7.9 X10-6 M	EC	SURFACE TENSION LOG PLOT	SCHI	64020	T	L
0099	25			SEE CMPD NMBR IN ADDITV	SCHI	66025		X
17 ENTRIES FOR COMPOUND								
COMPOUND NO = 118 MOL WGT - 215.3 OCTYL N BETAINE								
	21	2.17 X10-1 M	BC	TURBIDITY PLT LITE SCATR	TORI NAKA	63009	T	L
	23	1.7 X10-1 M	CD	SURFACE TENSION LOG PLOT	BECK WOOD	63015	T	L
	23	1.7 X10-1 M	CD	FOTOMTR SPCTR CHNGE BRPB	BECK WOOD	63015	T	L
	27	2.50 X10-1 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63009	T	L
	27	2.50 X10-1 M	BC	DENSITY	TORI NAKA	63009	T	L
5 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 119 MOL WGT = 243.4 DECYL N BETAINE								
	20	1.68 X10-2 M	BB	SURFACE TENSION LOG PLOT	MOLY RHOD	65003	GL	L
	20.2	2.1 X10-2 M	CD	REFRACTIVE INDEX	BECK WOOD	63015	T	L
	23	1.8 X10-2 M	CD	FOTOMTR SPCTR CHNGE BRPB	BECK WOOD	63015	T	L
	23	2.0 X10-2 M	CD	FOTOMTR SPCTR CHNG I2	BECK WOOD	63015	T	L
	23	1.8 X10-2 M	CD	SURFACE TENSION LOG PLOT	BECK WOOD	63015	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 120 MOL WGT = 257.4 UNDECYL N BETAINE								
	20	7.1 X10-3 M	BB	SURFACE TENSION LOG PLOT	MOLY RHOD	65003	GL	L
	20.2	6.4 X10-3 M	CC	REFRACTIVE INDEX	BECK WOOD	63015	T	L
	23	6.0 X10-3 M	CC	FOTOMTR SPCTR CHNGE BRPB	BECK WOOD	63015	T	L
	23	6.4 X10-3 M	CC	FOTOMTR SPCTR CHNG I2	BECK WOOD	63015	T	L
	23	6.6 X10-3 M	CC	SURFACE TENSION LOG PLOT	BECK WOOD	63015	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 121 MOL WGT = 271.4 DODECYL N BETAINE								
	10.2	2.0 X10-3 M	BC	REFRACTIVE INDEX	MOLY RHOD	65003	GL	L
	20.2	2.1 X10-3 M	CD	REFRACTIVE INDEX	BECK WOOD	63015	T	L
	20	2.00 X10-3 M	BB	SURFACE TENSION LOG PLOT	MOLY RHOD	65003	GL	L
	20.2	2.1 X10-3 M	BC	REFRACTIVE INDEX	MOLY RHOD	65003	GL	L
	23	1.8 X10-3 M	CD	SURFACE TENSION LOG PLOT	BECK WOOD	63015	T	L
	23	1.6 X10-3 M	CD	FOTOMTR SPCTR CHNGE BRPB	BECK WOOD	63015	T	L
	23	1.8 X10-3 M	CD	FOTOMTR SPCTR CHNG I2	BECK WOOD	63015	T	L
	25.2	2.2 X10-3 M	BC	REFRACTIVE INDEX	MOLY RHOD	65003	GL	L
	30.0	2.3 X10-3 M	BC	REFRACTIVE INDEX	MOLY RHOD	65003	GL	L
	35.7	2.4 X10-3 M	BC	REFRACTIVE INDEX	MOLY RHOD	65003	GL	L
	45.1	2.6 X10-3 M	BC	REFRACTIVE INDEX	MOLY RHOD	65003	GL	L
	49.7	2.7 X10-3 M	BC	REFRACTIVE INDEX	MOLY RHOD	65003	GL	L
	57.0	2.8 X10-3 M	BC	REFRACTIVE INDEX	MOLY RHOD	65003	GL	L
13 ENTRIES FOR COMPOUND								
COMPOUND NO = 122 MOL WGT = 299.5 TETRADECYL N BETAINE								
	20	1.78 X10-4 M	BB	SURFACE TENSION LOG PLOT	MOLY RHOD	65003	GL	L
	20.2	1.7 X10-4 M	CD	REFRACTIVE INDEX	BECK WOOD	63015	T	L
	23	1.8 X10-4 M	CD	SURFACE TENSION LOG PLOT	BECK WOOD	63015	T	L
	23	1.5 X10-4 M	CD	FOTOMTR SPCTR CHNGE BRPB	BECK WOOD	63015	T	L
	23	1.5 X10-4 M	CD	FOTOMTR SPCTR CHNG I2	BECK WOOD	63015	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 123 MOL WGT = 327.6 HEXADECYL N BETAINE								
	20.2	1.6 X10-5 M	CD	REFRACTIVE INDEX	BECK WOOD	63015	T	L
	20	2.52 X10-5 M	BB	SURFACE TENSION LOG PLOT	MOLY RHOD	65003	GL	L
	23	2.0 X10-5 M	CD	SURFACE TENSION LOG PLOT	BECK WOOD	63015	T	L
	23	1.8 X10-5 M	CD	FOTOMTR SPCTR CHNGE BRPB	BECK WOOD	63015	T	L
	23	1.8 X10-5 M	CD	FOTOMTR SPCTR CHNG I2	BECK WOOD	63015	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 124 MOL WGT = 307.9 DODECYL N BETAINE HYDROCHLORIDE								
	23	1.90 X10-3 M	CC	SURFACE TENSION LOG PLOT	BECK WOOD	63015	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 125 MOL WGT = 336.0 TETRADECYL N BETAINE HYDROCHLORIDE								
	23	1.96 X10-3 M	CC	SURFACE TENSION LOG PLOT	BECK WOOD	63015	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 126 MOL WGT = 355.3 DODECYL TRIMETHYLAMMONIUM IODIDE								
	23			QUESTIONABLE CRITERION	BECK WOOD	63015		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 127 MOL WGT = 403.3 DODECYL TRIMETHYL AMMONIUM IODATE								
4.95 E-1 W NA IO3	31.5	5.1 X10-3 M	BC	TURBIDITY PLT LITE SCATR	ANAC GHOS	63016	T	L
5.1 E-3 M NA BR								
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 128 MOL WGT = 273.5 DODECYL TRIMETHYL AMMONIUM FORMATE								
4.94 E-1 W NA HCO2 FORMATE	31.5	6.0 X10-3 M	BC	DEBYE PLT LIGHT SCATTER	ANAC GHOS	63016	T	L
6.0 E-3 M NA BR								
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 129 MOL WGT – 356.4 DODECYL TRIMETHYL AMMONIUM BROMATE								
4.97 E-1 W NA BR03	31.5	3.3 X10-3 M	BC	DEBYE PLT LIGHT SCATTER	ANAC GHOS	63016	T	L
3.3 E-3 M NA BR								
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 130 MOL WGT – 247.4 DODECYL TRIMETHYL AMMONIUM FLUORIDE								
4.92 E-1 W NA F	31.5	8.4 X10-3 M	BC	DEBYE PLT LIGHT SCATTER	ANAC GHOS	63016	T	L
8.4 E-3 M NA BR								
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 131 MOL WGT – 290.5 DODECYL TRIMETHYLAMMONIUM NITRATE								
4.99 E-1 W NA NO3	31.5	8. X10-4 M	BD	DEBYE PLT LIGHT SCATTER	ANAC GHOS	63016	T	L
0.8 E-4 M NA BR								
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 132 MOL WGT – 229.4 OCTYL C BETAINE								
	6	1.04 X10-1 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
	21	1.20 X10-1 M	BC	TURBIDITY PLT LITE SCATR	TORI NAKA	63009	T	L
	27	9.7 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
	27	1.25 X10-1 M	BC	DENSITY	TORI NAKA	63009	T	L
	27	0.5 X10-2 M	DC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
	27	9.7 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63009	T	L
	29	8.5 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63010	T	L
	45	9.1 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
	60	8.6 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
5. E-1 M CA CL2	27	8.5 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
1.0 E 0 M CA CL2	27	7.1 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
1. E-1 M NA CL	27	8.1 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
3. E-1 M NA CL	27	7.8 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
5. E-1 M NA CL	27	7.6 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
5. E-1 M NA CL	27	8.5 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
7. E-1 M NA CL	27	7.3 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
1.0 E 0 M NA CL	27	6.8 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
1.0 E 0 M NA CL	27	7.0 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
1.5 E 0 M NA CL	27	6.1 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
2.0 E 0 M NA CL	27	5.2 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
1.00 E 2 I NA OH	27	7.4 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
5. E-1 M NA2 SO4	27	4.6 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
1.0 E 0 M NA2 SO4	27	2.2 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
1.00 E 2 I NA OH	27	7.2 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
1. E-1 M NA CL								
1.00 E 2 I NA OH	27	6.0 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
5. E-1 M NA CL								
25 ENTRIES FOR COMPOUND								
COMPOUND NO = 133 MOL WGT – 257.4 DECYL C BETAINE								
	10	1.30 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
	21	1.44 X10-2 M	BC	TURBIDITY PLT LITE SCATR	TORI NAKA	63012	T	L
	27	1.31 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
	27	9.8 X10-3 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
	27	1.31 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63012	T	L
	29	9.8 X10-3 M	BC	FOTOMTR SOLU LZTN SDN 4	TORI NAKA	63010	T	L
	45	1.25 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
	60	1.19 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
5. E-1 M NA CL	27	8.0 X10-3 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
5. E-1 M NA CL	27	1.04 X10-2 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
1.0 E 0 M NA CL	27	8.0 X10-3 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
1.0 E 0 M NA CL	27	6.5 X10-3 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
1.5 E 0 M NA CL	27	6.2 X10-3 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
2.0 E 0 M NA CL	27	4.8 X10-3 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
14 ENTRIES FOR COMPOUND								
COMPOUND NO = 134 MOL WGT – 285.5 DODECYL C BETAINE								
	10	1.39 X10-3 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
	21	1.58 X10-3 M	BC	TURBIDITY PLT LITE SCATR	TORI NAKA	63012	T	L
	27	1.10 X10-3 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
	27	1.32 X10-3 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
	27	1.32 X10-3 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63012	T	L
	29	1.1 X10-3 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63010	T	L
	45	1.25 X10-3 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	60	1.20 X10-3 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
5. E-1 M NA CL	27	7.5 X10-4 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
5.. E-1 M NA CL	7	9.6 X10-4 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
1.0 E 0 M NA CL	27	6.8 X10-4 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
1.0 E 0 M NA CL	27	5.3 X10-4 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
1.5 E 0 M NA CL	27	4.8 X10-4 M	BB	SURFACE TENSION LOG PLOT	TORI NAKA	63008	T	L
2.0 E 0 M NA CL	27	3.4 X10-4 M	BB	SURFACE TENSION LOG PLOT	TORI NAK)	63008	T	L
14 ENTRIES FOR COMPOUND								
COMPOUND NO = 135 MOL WGT - 265.8 OCTYL C BETAINE HYDROCHLORIDE								
	27	6.0 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
1. E-1 M NA CL	27	4.2 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 136 MOL WGT - 237.3 SODIUM ALPHA DIMETHYL AMINO CAPRATE								
	27	9.6 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
1. E-1 M NA CL	27	7.0 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 137 MOL WGT - 251.8 ALPHA DIMETHYLAMINO CAPRIC ACID HYDROCHLORIDE								
	27	8.0 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
1. E-1 M NA CL	27	4.2 X10-2 M	BC	FOTOMTR SOLUBLZTN SDN 4	TORI NAKA	63008	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 138 MOL WGT - 306.3 SODIUM NONYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN								
	25	1.57 X10-2 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	50	1.71 X10-2 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	75	2.30 X10-2 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 139 MOL WGT - 348.4 SODIUM DODECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN								
				QUESTIONABLE CRITERION	YANG FOST	53015		R
	25	4.90 X10 3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
	25	4.80 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
	25	5.0 X10-3 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	25	1.53 X10-1 D	HC	SPECFC CONDCTNCE GRAPH	GINN HARR	58008	T	L
	25	1.23 X10-1 D	HC	SURFACE TENSION UNSPEC	GINN HARR	58008	T	L
	25	7. X10-2 D	HG	VISUAL SPCTR CHNGE PNCN	GINN HARR	58008	T	L
	25	4.1 X10-2 D	HG	FOTOMTR SPCTR CHNGE PNCN	GINN HARR	58008	T	L
	25	1.17 X10-1 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
	25	1.32 X10-1 D	HG	VISUAL SPCTR CHNGE PNCN	GINN HARR	58008	T	L
	25	1.10 X10-1 D	HG	FOTOMTR SPCTR CHNGE PNCN	GINN HARR	58008	T	L
	25	1.32 X10-1 D	HC	SPECFC CONDCTNCE GRAPH	GINN HARR	58008	T	L
	25	1.15 X10-1 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	26	1.23 X10-1 D	HB	SURFACE TENSION LOG PLOT	MANK	64010	T	L
	26	3.53 X10-3 M	HB	SURFACE TENSION LOG PLOT	MANK	66021	T	L
	35	1.3 X10-1 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61016	T	L
	50	7.5 X10-3 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	60	1.4 X10-1 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	60	7.0 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	75	8.0 X10-3 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	75	1.75 X10-1 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
2.1 E 0 Q C12 DIETHANOLAMIDE	25	5.2 X10-2 D	HG	FOTOMTR SPCTR CHNGE PNCN	GINN HARR	58008	T	L
2.1 E 0 Q C12 DIETHANOLAMIDE	25	6.7 X10-2 D	HC	SPECFC CONDCTNCE GRAPH	GINN HARR	58008	T	L
2.1 E 0 Q C12 DIETHANOLAMIDE	25	2.1 X10-2 D	HC	SURFACE TENSION UNSPEC	GINN HARR	58008	T	L
1. E 2 I NA CL	25	4.50 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
4. E 2 I NA CL	25	3.63 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
1. E 2 I NA2 C03	25	4.00 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
4. E 2 I NA2 C03	25	2.15 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
1. E 2 I NA OH	25	4.10 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
4. E 2 I NA OH	25	3.00 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
1. E 2 I NA4 P207 PYRO	25	3.46 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
4. E 2 I NA4 P207 PYRO	25	2.14 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
1. E 2 I NA P04	25	3.65 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
4. E 2 I NA P04	25	2.12 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
1. E 2 I NA14 P12037 POLY	25	2.88 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
4. E 2 I NA14 P12037 POLY	25	1.55 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
1. E 2 I NA53 P500154 POLY	25	1.90 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
1. E 2 I NA2 SI03 META	25	4.00 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
4. E 2 I NA2 SI03 META	25	2.16 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
2.1 E 0 Q NA5 P3010 TRIPOLY	25	4. X10-2 D	HG	FOTOMTR SPCTR CHNGE PNCN	GINN HARR	58008	T	L
2.1 E 0 Q NA5 P3010 TRIPOLY	25	1.10 X10-1 D	HC	SURFACE TENSION UNSPEC	GINN HARR	58008	T	L
1. E 2 I NA5 P3010 TRIPOLY	25	3.33 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
4. E 2 I NA5 P3010 TRIPOLY	25	2.20 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
2. E 2 I NA5 P3010 TRIPOLY	50	7.0 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
3.33 E 1 Q 0206	82	1.8 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	MANK	64010	T	L
5.0 E 1 Q 0206	82	7.5 X10-3 D	HC	FOTOMTR SOLUBLZTN OROT	MANK	64010	T	L
7.5 E 1 Q 0206	82	5. X10-3 D	HC	FOTOMTR SOLUBLZTN OROT	MANK	64010	T	L
47 ENTRIES FOR COMPOUND								
COMPOUND NO = 140 MOL WGT - 320.4 SODIUM DECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN								
	25	4.1 X10-3 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	50	4.8 X10-3 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	75	6.3 X10-3 M	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 141 MOL WGT - 362.4 SODIUM TRIDECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN								
	25	1.3 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	25	5. X10-2 D	HE	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	50	2.8 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	50	1.0 X10-1 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	75	2.8 X10-3 M	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	75	1.0 X10-1 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
2. E 2 I NA5 P3010 TRIPOLY	50	3.1 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 142 MOL WGT - 390.5 SODIUM PENTADECYL BENZENE SULFONATE BRANCHED HYDROCARBON CHAIN								
	25	4.4 X10-4 M	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	25	1.7 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	50	6.5 X10-4 M	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	50	2.1 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	75	9.4 X10-4 M	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	G	L
	75	3.5 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
2. E 2 I NA5 P3010 TRIPOLY	50	1. X10-2 D	HE	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 143 MOL WGT - 378.6 DECYL /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	6.3 X10-2 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	6.0 X10-2 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	4.0 X10-2 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 144 MOL WGT - 598.9 DECYL /OXYETHYLENE/ 10.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	1.6 X10-1 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	35	1.0 X10-1 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
	50	9.6 X10-2 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	8.5 X10-2 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	8.5 X10-2 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 145 MOL WGT - 814.8 DECYL /OXYETHYLENE/ 14.9 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	2.8 X10-1 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	1.44 X10-1 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.2 X10-1 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.2 X10-1 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 146 MOL WGT - 1,039.5 DECYL /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	6.0 X10-1 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	50	2.9 X10-1 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.9 X10-1 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 147 MOL WGT - 1,453.6 DECYL /OXYETHYLENE/ 29.4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	8.3 X10-1 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	4.5 X10-1 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	3.4 X10-1 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 148 MOL WGT - 429.5 TRIDECYL /OXYETHYLENE/ 5.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	5.8 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	5.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	6.5 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 149 MOL WGT - 645.4 TRIDECYL /OXYETHYLENE/ 10.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	9. X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
	25	1.0 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	25	9.2 X10-3 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
	25	9.2 X10-3 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	50	7.8 X10-3 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	7.8 X10-3 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	75	7.6 X10-3 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	7.6 X10-3 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
	75	7.57 X10-3 D	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
4. E 2 I NA4 P2O7 PYRO	25	9. X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 150 MOL WGT - 870.1 TRIDECYL /OXYETHYLENE/ 15.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	2.3 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	1.5 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.0 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 151 MOL WGT - 1,081.6 TRIDECYL /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	3.0 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	1.9 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.8 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 152 MOL WGT - 1,548.6 TRIDECYL /OXYETHYLENE/ 30.6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	8.0 X10-2 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	4.6 X10-2 D	HB	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	2.5 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 153 MOL WGT - 440.6 NONYL BENZENE /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	2.5 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	1.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.9 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 154 MOL WGT - 652.1 NONYL BENZENE /OXYETHYLENE/ 9.8 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	4.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	4.3 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	4.2 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 155 MOL WGT = 898.9 NONYL BENZENE /OXYETHYLENE/ 15.4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	7.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	7.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	9.2 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 156 MOL WGT = 1,101.5 NONYL BENZENE /OXYETHYLENE/ 20.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	1.0 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	25	1.55 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
	50	1.0 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.2 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
8.6 E-1 M NA CL	25	7.8 X10-5 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 157 MOL WGT = 1,551.0 NONYL BENZENE /OXYETHYLENE/ 30.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	2.4 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	2.0 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.9 X10-2 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 158 MOL WGT = 482.7 DODECYL BENZENE /OXYETHYLENE/ 5.0 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	7.5 X10-4 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	5. X10-4 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	5. X10-4 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 159 MOL WGT = 711.8 DODECYL BENZENE /OXYETHYLENE/ 10.2 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	1.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	25	2.4 X10-3 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
	50	5. X10-4 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	5. X10-4 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	5. X10-4 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 160 MOL WGT = 927.7 DODECYL BENZENE /OXYETHYLENE/ 15.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	1.5 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	1.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 161 MOL WGT = 1,148.0 DODECYL BENZENE /OXYETHYLENE/ 20.1 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	2.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	1.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 162 MOL WGT = 1,610.7 DODECYL BENZENE /OXYETHYLENE/ 30.6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	3.8 X10-3 D	HC	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	50	1.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
	75	1.0 X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN HARR	60010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 163 MOL WGT = 538.8 DODECYL /OXYETHYLENE/ 8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	UNK	5.5 X10-3 D	HC	TURBIDITY PLT LITE SCATR	BECH	59006	T	L
	UNK	5.9 X10-3 D	HC	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
	UNK	5.9 X10-3 D	HC	TURBIDITY PLT LITE SCATR	BECH	61003	T	L
E 0 CA CL2	25			SUMMARIZING EQN ONLY	BECH	62002		R
E 0 NA CITRATE	25			SUMMARIZING EQN ONLY	BECH	62002		R

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal, Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
. E 0 NA CL	25			SUMMARIZING EQN ONLY	BECH	62002		R
. E 0 NA2 S04	25			SUMMARIZING EQN ONLY	BECH	62002		R
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 164 MOL WGT - 715.0 DODECYL /OXYETHYLENE/ 12 ALCOHOL								
NATURAL DISTRIBUTION OF HEAD GROUPS								
	UNK 6.5 X10-3 D		HC	TURBIDITY PLT LITE SCATR	BECH	59006	T	L
	UNK 6.5 X10-3 D		HC	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
	UNK 6.5 X10-3 D		HC	TURBIDITY PLT LITE SCATR	BECH	61003	T	L
. E 0 CA CL2	25			SUMMARIZING EQN ONLY	BECH	62002		R
. E 0 NA CITRATE	25			SUMMARIZING EQN ONLY	BECH	62002		R
. E 0 NA CL	25			SUMMARIZING EQN ONLY	BECH	62002		R
. E 0 NA2 S04	25			SUMMARIZING EQN ONLY	BECH	62002		R
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 165 MOL WGT - 979.4 DODECYL /OXYETHYLENE/ 18 ALCOHOL								
NATURAL DISTRIBUTION OF HEAD GROUPS								
	UNK 8.5 X10-3 D		HC	TURBIDITY PLT LITE SCATR	BECH	59006	T	L
	UNK 8.0 X10-3 D		HC	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
	UNK 8.0 X10-3 D		HC	TURBIDITY PLT LITE SCATR	BECH	61003	T	L
. E 0 CA CL2	25			SUMMARIZING EQN ONLY	BECH	62002		R
. E 0 NA CITRATE	25			SUMMARIZING EQN ONLY	BECH	62002		R
. E 0 NA CL	25			SUMMARIZING EQN ONLY	BECH	62002		R
. E 0 NA2 S04	25			SUMMARIZING EQN ONLY	BECH	62002		R
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 166 MOL WGT - 1,199.7 DODECYL /OXYETHYLENE/ 23 ALCOHOL								
NATURAL DISTRIBUTION OF HEAD GROUPS								
	UN 1.1 X10-2 D		HD	FOTOMTR SPCTR CHNG BZP4	BECH	65013	T	L
	UNK 1.4 X10-2 D		HD	TURBIDITY PLT LITE SCATR	BECH	59006	T	L
	UNK 1.1 X10-2 D		HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
	UNK 5.8 X10-3 D		HC	FOTOMTR SPCTR CHNG I2	ROSS OLIV	59020	T	L
	UNK 6. X10-3 D		HE	SURFACE TENSION LOG PLOT	ROSS OLIV	59020	T	I
	UNK 1.1 X10-2 D		HD	METHOD NOT CITED	BECH	63020	T	L
	UNK 1.1 X10-2 D		HD	TURBIDITY PLT LITE SCATR	BECH	61003	T	L
	UNK 1.1 X10-2 D		HD	FOTOMTR SPCTR CHNG BZP4	BECH	62001	T	L
	UNK 1.1 X10-2 D		HD	SURFACE TENSION UNSPEC	BECH	62001	T	L
	UNK 1.1 X10-2 D		HD	FOTOMTR SPCTR CHNG I2	BECH	62001	T	L
	UNK 1.4 X10-2 D		HD	TURBIDITY PLT LITE SCATR	BECH CLIF	59005	T	L
E 0 CA CL2	25			SUMMARIZING EQN ONLY	BECH	62002		R
1.1 E 0 A DIOXANE	UN 1.3 X10-2 D		HD	FOTOMTR SPCTR CHNG BZP4	BECH	65013	T	L
2.3 E 0 A DIOXANE	UN 2.0 X10-2 D		HD	FOTOMTR SPCTR CHNG BZP4	BECH	65013	T	L
3.6 E 0 A DIOXANE	UN 2.6 X10-2 D		HD	FOTOMTR SPCTR CHNG BZP4	BECH	65013	T	L
5.0 E 0 A DIOXANE	UN 3.6 X10-2 D		HD	FOTOMTR SPCTR CHNG BZP4	BECH	65013	T	L
1.6 E 0 A ETHANOL	UN 1.2 X10-2 D		HD	FOTOMTR SPCTR CHNG BZP4	BECH	65013	T	L
3.3 E 0 A ETHANOL	UN 1.5 X10-2 D		HD	FOTOMTR SPCTR CHNG BZP4	BECH	65013	T	L
5.2 E 0 A ETHANOL	UN 2.0 X10-2 D		HD	FOTOMTR SPCTR CHNG BZP4	BECH	65013	T	L
7.0 E 0 A ETHANOL	UN 2.9 X10-2 D		HD	FOTOMTR SPCTR CHNG BZP4	BECH	65013	T	L
. E 0 NA CITRATE	25			SUMMARIZING EQN ONLY	BECH	62002		R
. E 0 NA CL	25			SUMMARIZING EQN ONLY	BECH	62002		R
. E 0 NA2 S04	25			SUMMARIZING EQN ONLY	BECH	62002		R
5. E 0 P SUCROSE	UNK 1.1 X10-2 D		HD	METHOD NOT CITED	BECH	63020	T	L
1.0 E 1 P SUCROSE	UNK 1.1 X10-2 D		HD	METHOD NOT CITED	BECH	63020	T	L
1.5 E 1 P SUCROSE	UNK 1.0 X10-2 D		HD	METHOD NOT CITED	BECH	63020	T	L
2.0 E 1 P SUCROSE	UNK 9.3 X10-3 D		HD	METHOD NOT CITED	BECH	63020	T	L
27 ENTRIES FOR COMPOUND								
COMPOUND NO = 167 MOL WGT - 660.9 NONYL BENZENE /OXYETHYLENE/ 10 ALCOHOL								
BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	75 4. X10-3 D		HE	METHOD NOT CITED	GINN HARR	61014	T	L
	UNK 6.4 X10-3 D		HC	TURBIDITY PLT LITE SCATR	BECH	61003	T	L
E 0 NA CL	25			SUMMARIZING EQN ONLY	BECH	62002		R
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 168 MOL WGT - 881.2 NONYL BENZENE /OXYETHYLENE/ 15 ALCOHOL								
BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25 1.2 X10-4 M		HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
	25 8.3 X10-3 D		HC	TURBIDITY PLT LITE SCATR	BECH	62002	T	L
	25 7.7 X10-3 D		HC	FOTOMTR SPCTR CHNG I2	BECH	62002	T	L
	25 8.1 X10-3 D		HC	SURFACE TENSION UNSPEC	BECH	62002	T	L
	UNK 7.7 X10-3 D		HC	TURBIDITY PLT LITE SCATR	BECH	61003	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	UNK	7.4 X10-3 D	HC	FOTOMTR SPCTR CHNG BZP4	BECH	62001	T	L
	UNK	8.1 X10-3 D	HC	SURFACE TENSION UNSPEC	BECH	62001	T	L
	UNK	7.7 X10-3 D	HC	FOTOMTR SPCTR CHNG I2	BECH	62001	T	L
8.6 E-1 M H CL	25	1.20 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
3.1 E 0 M H CL	25	1.50 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
8.6 E-1 M H NO3	25	1.30 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
3.1 E 0 M H NO3	25	2.90 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
5. E-1 M NA BR	25	1.00 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
5. E-1 M NA BR03	25	7.6 X10-5 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
5. E-1 M NA CL	25	8.4 X10-5 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
8.6 E-1 M NA CL	25	5.1 X10-5 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
. E 0 NA CL	25			SUMMARIZING EQN ONLY	BECH	62002		R
5. E-1 M NA I	25	1.08 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
5. E-1 M NA NO3	25	9.7 X10-5 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
5. E-1 M NA OH	25	5.1 X10-5 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
0337				SEE CMPD NMBR IN ADDITV	HSIA DUNN	56014		X
21 ENTRIES FOR COMPOUND								

COMPOUND NO = 169 MOL WGT - 1,542.1 NONYL BENZENE /OXYETHYLENE/ 30 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION

	25	2.75 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
	UNK	2.36 X10-2 D	HC	TURBIDITY PLT LITE SCATR	BECH	61003	T	L
8.6 E-1 M NA CL	25	1.10 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
E 0 NA CL	25			SUMMARIZING EQN ONLY	BECH	62002		R
0337				SEE CMPD NMBR IN ADDITV	HSIA DUNN	56014		X
5 ENTRIES FOR COMPOUND								

COMPOUND NO = 170 MOL WGT - 1,420.0 DODECYL /OXYETHYLENE/ 28 ALCOHOL REDUCED DISTRIBUTION OF HEAD GROUPS

	25	1.09 X10-2 D	EC	ULTRAFILTRATION	SCHO	64004	T	L
		7.670X10-5 M					M	
	25	1.1 X10-2 D	EE	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T	L
		7.74 X10-5 M					M	
2 ENTRIES FOR COMPOUND								

COMPOUND NO = 171 MOL WGT - 348.4 SODIUM 2-N-DODECYL BENZENE SULFONATE

	25	1.19 X10-3 M	FA	SPECFC CONDCTNCE GRAPH	LUDL	56005	T	P
	25	7.3 X10-2 D	CB	UNSPECIFIED CONDUCTANCE	SCHI FOWK	57014	T	L
		2.09 X10-3 M					M	
	25	6.5 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.86 X10-3 M					M	
	30	1.19 X10-3 M	FA	SPECFC CONDCTNCE GRAPH	LUDL	56005	T	P
	55	5.9 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.69 X10-3 M					M	
2.22 E 1 Q CAPRYLAMIDE	55	5.0 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.43 X10-3 M					M	
2.22 E 1 Q N-C10 GLYCEROL ETHER	55	3.3 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		9.47 X10-4 M					M	
2.22 E 1 Q DECANOL-1	55	4.1 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.17 X10-3 M					M	
2.22 E 1 Q N-C10 SULFOLANYL ETH	55	3.5 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.00 X10-3 M					M	
2.22 E 1 Q TETRADECANOL-2	55	6.0 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.72 X10-3 M					M	
2.22 E 1 Q ISOC5 GLYCEROL ETHER	55	5.4 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.54 X10-3 M					M	
2.22 E 1 Q C12 CLORHYDRIN GLET*	55	5.7 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.63 X10-3 M					M	
5.55 E 0 Q C12 ETHANOL AMIDE	55	4.7 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.34 X10-3 M					M	
1.11 E 1 Q C12 ETHANOL AMIDE	55	3.7 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.06 X10-3 M					M	
1.67 E 1 Q C12 ETHANOL AMIDE	55	3.2 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		9.18 X10-4 M					M	
2.22 E 1 Q C12 ETHANOL AMIDE	55	3.1 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		9.86 X10-4 M					M	
2.22 E 1 Q C12 GLYCEROL ETHER	55	2.9 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		8.32 X10-4 M					M	
2.22 E 1 Q C12 SULFOLANYLAMIDE	55	3.5 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.00 X10-3 M					M	
2.22 E 1 Q C8 GLYCEROL ETHER	55	3.6 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.03 X10-3 M					M	
2.22 E 1 Q N-3SOA*	55	4.8 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.37 X10-3 M					M	

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2.22 E 1 Q TMCHCGLET*	55	5.3 X10-2 D 1.52 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.0 E 1 Q NA2 SO4	55	3.2 X10-2 D 9.18 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.0 E 1 Q NA2 SO4 5.1 E 0 Q C12 ETHANOL AMIDE	55	4.0 X10-2 D 1.14 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.0 E 1 Q NA2 SO4 8.8 E 0 Q C12 ETHANOL AMIDE	55	3.6 X10-2 D 1.14 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.0 E 1 Q NA2 SO4 3.52 E 1 Q C12 ETHANOL AMIDE	55	2.8 X10-2 D 8.03 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
8.0 E 1 Q NA2 SO4 4.4 E 0 Q C12 ETHANOL AMIDE	55	3.4 X10-2 D 9.75 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
8.0 E 1 Q NA2 SO4 8.8 E 0 Q C12 ETHANOL AMIDE	55	3.1 X10-2 D 8.89 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
8.0 E 1 Q NA2 SO4 1.76 E 1 Q C12 ETHANOL AMIDE	55	2.8 X10-2 D 8.03 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
8.0 E 1 Q NA2 SO4 3.52 E 1 Q C12 ETHANOL AMIDE	55	2.7 X10-2 D 7.74 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
29 ENTRIES FOR COMPOUND								
COMPOUND NO = 172 MOL WGT = 292.3 SODIUM 2-N-OCTYL BENZENE SULFONATE								
	55	5.56 X10-1 D 1.902X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.22 E 1 Q N-C10 GLYCEROL ETHER	55	3.47 X10-1 D 1.187X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.22 E 1 Q C12 ETHANOL AMIDE	55	3.43 X10-1 D 1.173X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.22 E 1 Q C8 GLYCEROL ETHER	55	3.33 X10-1 D 1.139X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 173 MOL WGT = 320.4 SODIUM 2-N-DECYL BENZENE SULFONATE								
	55	1.79 X10-1 D 5.586X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.22 E 1 Q C12 ETHANOL AMIDE	55	1.01 X10-1 D 3.152X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 174 MOL WGT = 376.5 SODIUM 2-N-TETRADECYL BENZENE SULFONATE								
	55	1.5 X10-2 D 3.98 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.22 E 1 Q C12 ETHANOL AMIDE	55	1.4 X10-2 D 3.71 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 175 MOL WGT = 272.3 SODIUM DODECANE 2-SULFONATE								
	55	3.83 X10-1 D 1.406X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.22 E 1 Q N-C10 GLYCEROL ETHER	55	2.08 X10-1 D 7.638X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 176 MOL WGT = 300.4 SODIUM TETRADECANE 2-SULFONATE								
	55	1.13 X10-1 D 3.761X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.22 E 1 Q N-C10 GLYCEROL ETHER	55	6.9 X10-2 D 2.29 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI WK	57014	T M	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 177 MOL WGT = 328.4 SODIUM HEXADECANE 2-SULFONATE								
	55	3.5 X10-2 D 1.06 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2.22 E 1 Q N-C10 GLYCEROL ETHER	55	2.2 X10-2 D 6.69 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 178 MOL WGT = 356.5 SODIUM OCTADECANE 2-SULFONATE								
	55	1.3 X10-2 D 3.64 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T M	L

Concentration units: A — mol %; B — vol % solvent; C — mol % surfactant mixture; D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M — molar; N — normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2.22 E 1 Q N-C10 GLYCEROL ETHER	55	9. X10-3 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		2.5 X10-4 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 179 MOL WGT - 272.3 SODIUM DODECANE 1-SULFONATE								
		47005		VALUES FRM REF IN CMC	KLEV	48005		R
	25	9.8 X10-3 M	AB	SURFACE TENSION LOG PLOT	BUJA GODD	65007	L	3
	31.5	9.8 X10-3 W	DB	KRAFFT POINT SOLUBILITY	TART WRIG	39002	T	L
	33.5	9.2 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
	33.5	9.2 X10-3 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	35	9.0 X10-3 M	BC	ELECTROMOTIVE FORCE	CORK GOOD	64012	K	L
	35	1.05 X10-2 M	CC	REFRACTIVE INDEX	KLEV	47004	T	L
	35	1.0 X10-2 M	CD	REFRACTIVE INDEX	KLEV	47005	T	L
	40	1.10 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
	40	1.0 X10-2 M	DD	REFRACTIVE INDEX	KLEV	48005	T	L
	40	9.7 X10-3 M	AB	SURFACE TENSION LOG PLOT	BUJA GODD	65007	L	3
	40	1.1 X10-2 N	CC	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	L
	45	1.1 X10-2 M	CD	REFRACTIVE INDEX	KLEV	47005	T	L
	50	1.1 X10-2 M	DD	REFRACTIVE INDEX	KLEV	48005	T	L
	50	6.9 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	55	2.88 X10-1 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		1.057X10-2 M					M	
	55	1.2 X10-2 M	CD	REFRACTIVE INDEX	KLEV	47005	T	L
	60	1.20 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
	65	1.4 X10-2 M	CD	REFRACTIVE INDEX	KLEV	47005	T	L
	80	1.40 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
	UNK	1.1 X10-2 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
2.2 E-1 P BENZENE	33.5	7.5 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
2.22 E 1 Q N-C10 GLYCEROL ETHER	55	1.17 X10-1 D	CG	VISUAL SPCTR CHNGE PNCN	SCHI FOWK	57014	T	L
		4.296X10-3 M					M	
1.00 E 2 I NA CL	40	8.1 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
1.00 E 2 I NA CL	60	9.2 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
1.00 E 2 I NA CL	80	1.17 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
26 ENTRIES FOR COMPOUND								
COMPOUND NO = 181 MOL WGT - 216.2 SODIUM OCTYL 1-SULFONATE								
	23	1.55 X10-1 N	CB	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	3
	25	1.4 X10-1 M	CG	VISUAL SPCTR CHNGE PNCN	LELO TART	51003	L	L
	25	1.55 X10-1 M	CC	REFRACTIVE INDEX	KLEV	48005	T	3
	25	1.53 X10-1 M	CC	REFRACTIVE INDEX	KLEV	47004	T	L
	25	1.45 X10-1 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	40	1.62 X10-1 M	CC	REFRACTIVE INDEX	KLEV	48005	T	3
	50	1.77 X10-1 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 182 MOL WGT - 244.3 SODIUM DECYL 1-SULFONATE								
		47005		VALUES FRM REF IN CMC	KLEV	48005		R
		47006		VALUES FRM REF IN CMC	CORR HARK	46005		R
	22.5	4.0 X10-2 W	DB	KRAFFT POINT SOLUBILITY	TART WRIG	39002	T	L
	25	3.8 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
	25	4.2 X10-2 M	CC	REFRACTIVE INDEX	KLEV	47004	T	L
	25	4.1 X10-2 M	CC	REFRACTIVE INDEX	KLEV	47005	T	L
	25	3.8 X10-2 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	26	4.00 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47006	T	L
	26	3.87 X10-2 M	CG	VISUAL SPCTR CHNGE RHD6	CORR HARK	47006	T	L
	26	4.00 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
	30	3.8 X10-2 N		UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	L
	30	1.066X10 0 D	BA	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T	2
		4.363X10-2 M					M	
	35	4.2 X10-2 M	CC	REFRACTIVE INDEX	KLEV	47005	T	L
	40	4.0 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
	40	4.1 X10-2 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
	45	4.5 X10-2 M	CC	REFRACTIVE INDEX	KLEV	47005	T	L
	50	4.5 X10-2 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
	55	4.9 X10-2 M	CC	REFRACTIVE INDEX	KLEV	47005	T	L
	60	4.3 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
	65	5.5 X10-2 M	CC	REFRACTIVE INDEX	KLEV	47005	T	L
	80	5.8 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
	UNK	4.00 X10-2 M	CG	METHOD NOT CITED	HARK MITT	49006	T	L
2.2 E-1 P BENZENE	25	3.4 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
3.40 E-2 P BENZENE	UNK	3.81 X10-2 M	CG	METHOD NOT CITED	HARK MITT	49006	T	L
5.50 E-2 P BENZENE	UNK	3.86 X10-2 M	CG	METHOD NOT CITED	HARK MITT	49006	T	L
8.9 E-2 P BENZENE	UNK	3.89 X10-2 M	CG	METHOD NOT CITED	HARK MITT	49006	T	L

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.22 E-1 P BENZENE	UNK	3.82 X10-2 M	CG	METHOD NOT CITED	HARK MITT	49006	T	L
1.47 E-1 P BENZENE	UNK	3.85 X10-2 M	CG	METHOD NOT CITED	HARK MITT	49006	T	L
4.92 E-3 M NA CL	26	3.82 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.35 E-2 M NA CL	26	3.50 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
2.86 E-2 M NA CL	26	3.17 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
5.27 E-2 M NA CL	26	2.93 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.0 E-1 M NA CL	30	5.364X10-1 D	BA	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T	2
		2.195X10-2 M					M	
4.21 E-3 M NA2 S04	26	3.72 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
7.97 E-3 M NA2 S04	26	3.52 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
1.98 E-2 M NA2 S04	26	3.12 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
3.46 E-2 M NA2 S04	26	2.73 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	CORR HARK	47010	T	L
37 ENTRIES FOR COMPOUND								
COMPOUND NO = 183 MOL WGT = 300.4 SODIUM TETRADECYL 1-SULFONATE								
	39.5	2.7 X10-3 W	DB	KRAFFT POINT SOLUBILITY	TART WRIG	39002	T	L
	40	2.5 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
	40	2.5 X10-3 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
	42.5	2.5 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
	42.5	2.5 X10-3 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	45	2.9 X10-3 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
	45	3.15 X10-3 M	CC	REFRACTIVE INDEX	KLEV	47004	T	L
	50	2.9 X10-3 M	CC	REFRACTIVE INDEX	KLEV	48005	T	L
	50	2.03 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	60	3.3 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
	60	3.3 X10-3 N	DC	UNSPECIFIED CONDUCTANCE	TART LELO	55021	TA	L
	80	4.6 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	WRIG ABBO	39007	T	L
2.2 E-1 P BENZENE	42.5	1.8 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	KLEV	50003	T	L
13 ENTRIES FOR COMPOUND								
COMPOUND NO = 184 MOL WGT = 328.4 SODIUM HEXADECYL 1-SULFONATE								
	47.5	1.05 X10-3 W	DB	KRAFFT POINT SOLUBILITY	TART WRIG	39002	T	L
	50	7. X10-4 M	CD	REFRACTIVE INDEX	KLEV	48005	T	L
	50	8.0 X10-4 M	CG	FOTOMTR SPCTR CHNGE PNCN	KLEV	47004	T	L
	50	4.5 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	52	9. X10-4 M	CD	REFRACTIVE INDEX	KLEV	48005	T	L
	52	1.15 X10-3 M	CC	REFRACTIVE INDEX	KLEV	47004	T	L
6 ENTRIES FOR COMPOUND								
COMPOUND NO = 185 MOL WGT = 294.5 POTASSIUM HEXADECANOATE								
	35	1.8 X10-3 M	DD	REFRACTIVE INDEX	KLEV	48005	T	L
	45	1.9 X10-3 M	DD	REFRACTIVE INDEX	KLEV	48005	T	L
	50	2.2 X10-3 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
1. E-1 K K ION	UNK	9.0 X10-5 M	CC	SURFACE TENSION LOG PLOT	ROE BRAS	54013	T	L
1.23 E 1 PH OF SOLUTION								
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 186 MOL WGT = 277.9 HEXADECYL AMMONIUM CHLORIDE								
	40	1.07 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	SHIR TAMA	57016	P	L
	50	8. X10-4 M	CD	REFRACTIVE INDEX	KLEV	48005	TA	L
	55	8.5 X10-4 M	XE	REFRACTIVE INDEX	KLEV	53010	T	L
	60	9.9 X10-4 M	CC	EQUIV CONDCTNCE GRAPH	RALS HOER	42002	P	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 187 MOL WGT = 306.0 OCTADECYL AMMONIUM CHLORIDE								
	60	3 X10-4 M	CD	EQUIV CONDCTNCE GRAPH	RALS HOER	42002	T	L
	60	2.5 X10-4 M	CD	REFRACTIVE INDEX	KLEV	48005	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 188 MOL WGT = 154.2 POTASSIUM HEXANOATE								
	25	1.55 X10 0 M	DC	REFRACTIVE INDEX	KLEV	48005	T	L
	25	1.68 X10 0 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	UNK	1.5 X10 0 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
2. E 0 I K OH	25	1.60 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
5. E-5 N PINACYANOL CL (DYE)	25	1.22 X10 0 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
1. E-4 N PINACYANOL CL (DYE)	25	1.49 X10 0 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
1. E-4 N PINACYANOL CL (DYE)	25	1.0 X10 0 M	DG	FOTOMTR SPCTR CHNGE PNCN	HERZ	52015	T	L
2. E-4 N PINACYANOL CL (DYE)	25	1.48 X10 0 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
5.1 E 0 C 0044	25	1.28 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2. E 0 I K OH								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.27 E 1 C 0044 2. E 0 I K OH	25	1.05 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.48 E 1 C 0044 2. E 0 I K OH	25	8.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4.58 E 1 C 0044 2. E 0 I K OH	25	6.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.92 E 1 C 0044 2. E 0 I K OH	25	4.9 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.8 E 0 C 0090 2. E 0 I K OH	25	1.07 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.8 E 0 C 0090 2. E 0 I K OH	25	7.3 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
8.9 E 0 C 0090 2. E 0 I K OH	25	4.7 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.16 E 1 C 0090 2. E 0 I K OH	25	2.8 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.53 E 1 C 0090 2. E 0 I K OH	25	2.1 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
8. E-1 C 0092 2. E 0 I K OH	25	2.8 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.1 E 0 C 0092 2. E 0 I K OH	25	2.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.5 E 0 C 0092 2. E 0 I K OH	25	1.1 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4.8 E 0 C 0092 2. E 0 I K OH	25	5.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
5.3 E 0 C 0296 2. E 0 I K OH	25	1.52 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.00 E 1 C 0296 2. E 0 I K OH	25	1.44 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.60 E 1 C 0296 2. E 0 I K OH	25	1.36 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.34 E 1 C 0296 2. E 0 I K OH	25	1.28 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.11 E 1 C 0296 2. E 0 I K OH	25	1.19 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.33 E 1 C 0296 2. E 0 I K OH	25	1.16 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
3.85 E 1 C 0296 2. E 0 I K OH	25	1.13 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4.92 E 1 C 0296 2. E 0 I K OH	25	1.04 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.44 E 1 C 0296 2. E 0 I K OH	25	9.6 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
7.78 E 1 C 0296 2. E 0 I K OH	25	9.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
8. E-1 C 0297 2. E 0 I K OH	25	8.7 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.1 E 0 C 0297 2. E 0 I K OH	25	5.8 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.9 E 0 C 0297 2. E 0 I K OH	25	3.5 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.00 E 1 C 0297 2. E 0 I K OH	5	2.1 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.63 E 1 C 0297 2. E 0 I K OH	25	1.4 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
8.8 E 0 C 0296 7.36 E 1 C 0044 2. E 0 I K OH	25	4.5 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
1.49 E 1 C 0296 5.54 E 1 C 0044 2. E 0 I K OH	25	5.2 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
1.93 E 1 C 0296 4.20 E 1 C 0044 2. E 0 I K OH	25	5.9 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
2.28 E 1 C 0296 3.17 E 1 C 0044 2. E 0 I K OH	25	6.6 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
2.55 E 1 C 0296 2.36 E 1 C 0044 2. E 0 I K OH	25	7.2 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
2.76 E 1 C 0296 1.72 E 1 C 0044 2. E 0 I K OH	25	8.2 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2.94 E 1 C 0296	25	9.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
1.17 E 1 C 0044								
2. E 0 I K OH								
3.10 E 1 C 0296	25	9.8 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
7.2 E 0 C 0044								
2. E 0 I K OH								
3.22 E 1 C 0296	25	1.07 X10 0 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	L	L
3.3 E 0 C 0044								
2. E 0 I K OH								
46 ENTRIES FOR COMPOUND								
COMPOUND NO = 189 MOL WGT - 308.4		ALPHA SULFOMYRISTIC ACID						
	25	1.3 X10-1 D	CD	EQUIV CONDCTNCE GRAPH	WEIL STIR	56008	T	L
		4.21 X10-3 M					M	
	25	5.2 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	WEIL STIR	56008	K	3
	28	7. X10-2 D	CD	SURFACE TENSION UNSPEC	WEIL STIR	56008	T	L
		2.2 X10-3 M					M	
	UNK	2.27 X10-3 M	CB	SURFACE TENSION UNSPEC	MAUR STIR	64002	L	L
	RM	7.5 X10-2 D	CG	FOTOMTR SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		2.43 X10-3 M					M	
	RM	8. X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		2.5 X10-3 M					M	
6 ENTRIES FOR COMPOUND								
COMPOUND NO = 190 MOL WGT - 336.4		ALPHA SULFOPALMITIC ACID						
	28	2. X10-2 D	CE	SURFACE TENSION UNSPEC	WEIL STIR	56008	T	L
		5.9 X10-4 M					M	
	UNK	6.0 X10-4 M	CB	SURFACE TENSION UNSPEC	MAUR STIR	64002	L	L
	RM	2.3 X10-2 D	CG	FOTOMTR SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		6.83 X10-4 M					M	
	RM	1.7 X10-2 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		5.05 X10-4 M					M	
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 191 MOL WGT - 364.5		ALPHA SULFOSTEARIC ACID						
	28	5. X10-3 D	CD	SURFACE TENSION UNSPEC	WEIL STIR	56008	T	L
		1.3 X10-4 M					M	
	UNK	1.4 X10-4 M	CD	SURFACE TENSION UNSPEC	MAUR STIR	64002	L	L
	RM	4. X10-3 D	CG	FOTOMTR SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		1.0 X10-4 M					M	
	RM	5. X10-3 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		1.3 X10-4 M					M	
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 192 MOL WGT - 386.5		SODIUM ETHYL ALPHA SULFOPALMITATE						
	28	9. X10-3 D	CD	SURFACE TENSION UNSPEC	WEIL STIR	56008	T	L
		2.3 X10-4 M					M	
	RM	1.3 X10-2 D	CG	FOTOMTR SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		3.36 X10-4 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 193 MOL WGT - 400.5		SODIUM PROPYL ALPHA SULFOPALMITATE						
	28	4. X10-3 D	CD	SURFACE TENSION UNSPEC	WEIL STIR	56008	T	L
		9.9 X10-5 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 194 MOL WGT - 400.5		SODIUM METHYL ALPHA SULFOSTEARATE						
	28	4. X10-3 D	CD	SURFACE TENSION UNSPEC	WEIL STIR	56008	T	L
		9.9 X10-5 M					M	
	UNK	8. X10-5 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	T	L
	RM	4. X10-3 D		FOTOMTR SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		9.9 X10-5 M					M	
	RM	3. X10-3 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		7.4 X10-5 M					M	
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 195 MOL WGT - 414.5		SODIUM ETHYL ALPHA SULFOSTEARATE						
	28	5. X10-3 D	CD	SURFACE TENSION UNSPEC	WEIL STIR	56008	T	L
		1.2 X10-4 M					M	

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	RM	2. X10-3 D	CG	FOTOMTR SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		4.8 X10-5 M					M	
	RM	2. X10-3 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		4.8 X10-5 M					M	
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 196 MOL WGT - 428.6 SODIUM PROPYL ALPHA SULFOSTEARATE								
	28	5. X10-4 D	CD	SURFACE TENSION UNSPEC	WEIL STIR	56008	T	L
		1.1 X10-5 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 197 MOL WGT - 488.5 DISODIUM 2 SULFOETHYL ALPHA SULFOPALMITATE								
	25	5.3 X10-1 D	CC	EQUIV CONDCTNCE GRAPH	WEIL STIR	56008	T	L
		1.08 X10-2 M					M	
	RM	3. X10-1 D	CG	FOTOMTR SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		6.1 X10-3 M					M	
	RM	4. X10-1 D	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		8.1 X10-3 M					M	
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 198 MOL WGT - 516.5 DISODIUM 2 SULFOETHYL ALPHA SULFOSTEARATE								
	25	1.6 X10-1 D	CC	EQUIV CONDCTNCE GRAPH	WEIL STIR	56008	T	L
		3.09 X10-3 M					M	
	28	1.3 X10-1 D	CD	SURFACE TENSION UNSPEC	WEIL STIR	56008	T	L
		2.51 X10-3 M					M	
	RM	1.0 X10-1 D	CG	FOTOMTR SPCTR CHNGE PNCN	WEIL STIR	56008	T	L
		1.93 X10-3 M					M	
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 199 MOL WGT - 428.6 SODIUM ISOPROPYL ALPHA SULFOSTEARATE								
	28	1. X10-3 D	CE	SURFACE TENSION UNSPEC	WEIL STIR	56008	T	L
		2.3 X10-5 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 200 MOL WGT - 250.3 DODECYL SULFONIC ACID								
	0	1.00 X10-2 M	CC	SPECFC CONDCTNCE GRAPH	BRAD HUFF	48004	T	L
	0	9.5 X10-3 W	CB	FREEZING POINT	MCBA DYE	39011	K	L
	25	8.5 X10-3 M	CC	SPECFC CONDCTNCE GRAPH	BRAD HUFF	48004	T	L
	25	9.2 X10-3 W	CB	EQUIV CONDCTNCE GRAPH	MCBA DYE	39011	K	L
	25	8. X10-2 W	CF	EQUIV CONDCTNCE GRAPH	MCBA DYE	39011	T	L
	29	7.5 X10-3 M	BB	SURFACE TENSION LOG PLOT	BRAD	48022	T	L
	40	9.2 X10-3 W	CC	ELECTROMOTIVE FORCE	TART LING	48007	P	L
	50	9.5 X10-3 M	CC	SPECFC CONDCTNCE GRAPH	BRAD HUFF	48004	T	L
	50	5.55 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	70	1.20 X10-2 M	CC	SPECFC CONDCTNCE GRAPH	BRAD HUFF	48004	T	L
	90	1.55 X10-2 M	CC	SPECFC CONDCTNCE GRAPH	BRAD HUFF	48004	T	L
	UNK	9. X10-3 M	XC	METHOD NOT CITED	KLEV RAIS	54004	T	L
	UNK	4.39 X10-3 M	BB	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
13 ENTRIES FOR COMPOUND								
COMPOUND NO = 201 MOL WGT - 524.8 DECYL /OXYETHYLENE/8 OXYMETHYL REDUCED	POLYDISPERSION OF HEAD GROUPS							
	30	6.0 X10-2 D	EC	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T	L
		1.14 X10-3 M					M	
1.50 E-2 Q N-DECANE	30	4.0 X10-2 D	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T	L
		7.62 X10-4 M					M	
1.32 E 0 Q N-DECANE	30	5.7 X10-2 D	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T	L
		1.08 X10-3 M					M	
2.33 E 0 Q N-DECANE	30	5.4 X10-2 D	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T	L
		1.02 X10-3 M					M	
3.16 E 0 Q N-DECANE	30	5.2 X10-2 D	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T	L
		9.90 X10-4 M					M	
3.78 E 0 Q N-DECANE	30	5.1 X10-2 D	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T	L
		9.71 X10-4 M					M	
4.93 E 0 Q N-DECANE	30	4.8 X10-2 D	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T	L
		9.14 X10-4 M					M	
1.20 E 1 Q N-DECANE	30	4.0 X10-2 D	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T	L
		7.62 X10-4 M					M	

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
3.40 E 0 Q DECANOL-1	30	5.2 X10-2 D 9.90 X10-4 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
6.19 E 0 Q DECANOL-1	30	4.5 X10-2 D 8.57 X10-4 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
8.50 E 0 Q DECANOL-1	30	4.0 X10-2 D 7.62 X10-4 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
1.142E 1 Q DECANOL-1	30	3.3 X10-2 D 6.28 X10-4 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
1.661E 1 Q DECANOL-1	30	2.0 X10-2 D 3.81 X10-4 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
13 ENTRIES FOR COMPOUND								
COMPOUND NO = 202 MOL WGT - 657.0 DECYL /OXYETHYLENE/11 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS								
	30	9.5 X10-2 D 1.44 X10-3 M	EC	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
1.40 E 0 Q N-DECANE	30	9.2 X10-2 D 1.40 X10-3 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
2.68 E 0 Q N DECANE	30	9.0 X10-2 D 1.36 X10-3 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
3.31 E 0 Q N-DECANE	30	8.8 X10-2 D 1.33 X10-3 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
5.67 E 0 Q DECANOL-1	30	8.4 X10-2 D 1.27 X10-3 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
1.018E 1 Q DECANOL-1	30	7.5 X10-2 D 1.14 X10-3 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
1.712E 1 Q DECANOL-1	30	6.3 X10-2 D 9.58 X10-4 M	ED	TURBIDITY PLT LITE SCATR	NAKA KURI	60006	T M	L
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 203 MOL WGT - 235.8 DECYL TRIMETHYL AMMONIUM CHLORIDE								
	25	6.5 X10-2 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L
	25	6.11 X10-2 M	BB	UNSPECIFIED CONDUCTANCE	HOYE MARM	61002	T	3
3.33 E 1 C 0041	25	1.96 X10-2 M	BB	UNSPEC SOLUBLZTN SDN 4	HOYE MARM	61002	T	3
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 204 MOL WGT - 701.0 DECYL /OXYETHYLENE/12 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS								
	09.7	1.70 X10-1 D 2.425X10-3 M	EC	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
	29.0	1.10 X10-1 D 1.569X10-3 M	EC	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
	30	1.05 X10-1 D 1.497X10-3 M	EC	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
	45	8.2 X10-2 D 1.16 X10-3 M	EC	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
	50.7	7.8 X10-2 D 1.11 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
	50	7.8 X10-2 D 1.11 X10-3 M	EC	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
	58.5	7.0 X10-2 D 9.98 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
	69.7	6.2 X10-2 D 8.84 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
	73.4	6.0 X10-2 D 8.55 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
	75.0	6.0 X10-2 D 8.55 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.86 E 0 Q N-DECANE	09.6	1.65 X10-1 D 2.353X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
2.6 E 0 Q N-DECANE	10.0	1.63 X10-1 D 2.325X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.86 E 0 Q N-DECANE	30.0	1.05 X10-1 D 1.497X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
4.4 E 0 Q N-DECANE	30.0	1.02 X10-1 D 1.455X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.86 E 0 Q N DECANE	50.0	7.8 X10-2 D 1.11 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
8.7 E 0 Q N-DECANE	50.0	7.0 X10-2 D 9.98 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.86 E 0 Q N-DECANE	60.0	7.0 X10-2 D 9.98 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

	Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.35 E 1 Q	N-DECANE	60.0	6.8 X10-2 D 9.70 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.86 E 0 Q	N-DECANE	66.6	6.2 X10-2 D 8.84 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.86 E 0 Q	N-DECANE	69.0	6.2 X10-2 D 8.84 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
9.17 E 0 Q	DECANOL-1	10.0	1.45 X10-1 D 2.068X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
9.17 0	DECANOL-1	29.9	8.8 X10-2 D 1.25 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.87 E 0 Q	DECANOL-1	30	1.05 X10-1 D 1.497X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
4.56 E 0 Q	DECANOL-1	30	9.9 X10-2 D 1.41 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
7.75 E 0 Q	DECANOL-1	30	9.2 X10-2 D 1.31 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
9.17 E 0 Q	DECANOL-1	30	8.8 X10-2 D 1.25 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.11 E 1 Q	DECANOL-1	30	8.5 X10-2 D 1.21 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.91 E 1 Q	DECANOL-1	30	7.0 X10-2 D 9.98 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
9.17 E 0 Q	DECANOL-1	43.4	7.6 X10-2 D 1.08 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
5.37 E 0 Q	DECANOL-1	45	7.8 X10-2 D 1.11 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
9.17 E 0 Q	DECANOL-1	45	7.5 X10-2 D 1.06 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.07 E 1 Q	DECANOL-1	45	7.4 X10-2 D 1.05 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.28 E 1 Q	DECANOL-1	45	7.3 X10-2 D 1.04 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.73 E 1 Q	DECANOL-1	45	6.9 X10-2 D 9.84 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
9.17 E 0 Q	DECANOL-1	49.7	7.0 X10-2 D 9.98 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
1.86 E 0 Q	DECANOL-1	50	7.8 X10-2 D 1.11 X10-3 R	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
2.23 E 0 Q	DECANOL-1	50	7.6 X10-2 D 1.08 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
3.53 E 0 Q	DECANOL-1	50	7.5 X10-2 D 1.06 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
5.58 E 0 Q	DECANOL-1	50	7.3 X10-2 D 1.04 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
7.52 E 0 Q	DECANOL-1	50	7.1 X10-2 D 1.01 X10-3 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
8.7 E 0 Q	DECANOL-1	50	7.0 X10-2 D 9.98 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
9.17 E 0 Q	DECANOL-1	55.4	6.6 X10-2 D 9.41 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
9.17 E 0 Q	DECANOL-1	61.4	6.2 X10-2 D 8.84 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62009	T M	L
43 ENTRIES FOR COMPOUND									
COMPOUND NO = 205 MOL WGT - 729.1 DODECYL /OXYETHYLENE/12 OXYMETHYL REDUCED POLYDISPERSION OF HEAD GROUPS									
		20	4. X10-2 D 5.4 X10-4 M	EE	TURBIDITY PLT LITE SCATR	KURI	62011	T M	L
		40	2. X10-2 D 2.7 X10-4 M	EE	TURBIDITY PLT LITE SCATR	KURI	62011	T M	L
		60	1.5 X10-2 D 2.05 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T M	L
		70	1.2 X10-2 D 1.64 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T M	L
		76	1.2 X10-2 D 1.64 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T M	L
5. E-1 M	CA CL2	30	2.0 X10-2 D 2.74 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T M	L
1. E 0 M	CA CL2	30	1.0 X10-2 D 1.37 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T M	L
5. E-1 M	CA CL2	50	1.5 X10-2 D 2.05 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T M	L
1. E 0 M	CA CL2	50	8. X10-3 D 1.0 X10-4 M	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T M	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

	Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.	E 0 M CA CL2	60	5. X10-3 D	EE	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
			6.8 X10-5 M					M	
5.	E-1 M CA CL2	64	1.0 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
			1.37 X10-4 M					M	
2.	E-1 M NA CL	30	2.3 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
			3.15 X10-4 M					M	
2.	E-1 M NA CL	30	2.3 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
			3.15 X10-4 M					M	
1.	E 0 M NA CL	30	2.0 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
			2.74 X10-4 M					M	
2.	E-1 M NA CL	50	1.6 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
			2.19 X10-4 M					M	
2.	E-1 M NA CL	50	1.6 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
			2.19 X10-4 M					M	
1.	E 0 M NA CL	50	1.5 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
			2.05 X10-4 M					M	
1.	E 0 M NA CL	60	1.2 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
			1.64 X10-4 M					M	
2.	E-1 M NA CL	70	1.2 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
			1.64 X10-4 M					M	
2.	E-1 M NA CL	70	1.2 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
			1.64 X10-4 M					M	
2.	E-1 M NA CL	30	2.3 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	5. E 0 T 0001		3.15 X10-4 M					M	
2.	E-1 M NA CL	30	2.5 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	2.0 E 1 T 0001		3.42 X10-4 M					M	
2.	E-1 M NA CL	30	2.8 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	4.0 E 1 T 0001		3.84 X10-4 M					M	
2.	E-1 M NA CL	30	2.8 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	6.0 E 1 T 0001		3.84 X10-4 M					M	
2.	E-1 M NA CL	30	2.9 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	8.0 E 1 T 0001		3.97 X10-4 M					M	
2.	E-1 M NA CL	50	2.2 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	5. E 0 T 0001		3.01 X10-4 M					M	
2.	E-1 M NA CL	50	2.5 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	2.0 E 1 T 0001		3.42 X10-4 M					M	
2.	E-1 M NA CL	50	3.0 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	4.0 E 1 T 0001		4.11 X10-4 M					M	
2.	E-1 M NA CL	50	3.3 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	6.0 E 1 T 0001		4.52 X10-4 M					M	
2.	E-1 M NA CL	50	3.6 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	8.0 E 1 T 0001		4.93 X10-4 M					M	
2.	E-1 M NA CL	70	2.0 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	5. E 0 T 0001		2.74 X10-4 M					M	
2.	E-1 M NA CL	70	2.6 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	2.0 E 1 T 0001		3.56 X10-4 M					M	
2.	E-1 M NA CL	70	3.4 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	4.0 E 1 T 0001		4.66 X10-4 M					M	
2.	E-1 M NA CL	70	4.0 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	6.0 E 1 T 0001		5.48 X10-4 M					M	
2.	E-1 M NA CL	70	5.0 X10-2 D	ED	TURBIDITY PLT LITE SCATR	KURI NAKA	62010	T	L
	8.0 E 1 T 0001		6.85 X10-4 M					M	
	35 ENTRIES FOR COMPOUND								

COMPOUND NO = 206 MOL WGT = 624 9 TRITON X-100(P-T-OCTYL BENZENE/OXYETHYLENE/9
NATURAL DISTRIBUTION OF HEAD GROUPS

		0	9. X10-4 W	HD	FREEZING POINT	GONI MCBA	47007	T	L
		26	1.5 X10-2 D	HD	SURFACE TENSION LOG PLOT	MANK	64010	T	L
		30	5. X10-2 D	HE	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
		UNK	1.6 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	ROSS OLIV	59020	T	L
5.	E-1 M CA CL2	30	4. X10-2 D	HE	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
1.0	E 0 M H NO3	25	1.8 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
1.0	E 0 M H NO3	25	2.2 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
7.	E-1 M H CL04	25	1.6 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
7.	E-1 M H CL04	25	3.7 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
7.	E-1 M H CL04	25	2.0 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
1.0	E 0 M K CL	25	2.2 X10-3 D	HE	SURFACE TNSN LINEAR PLOT	COLI	50012	T	L
1.0	E 0 M K CL	25	1.5 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
1.0	E 0 M K NO3	25	2.5 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
1.0	E 0 M K NO3	25	2.2 X10-3 D	HE	SURFACE TNSN LINEAR PLOT	COLI	50012	T	L
1.0	E 0 M K NO3	25	2.0 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
1.0	E 0 M K OH	25	2.0 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L

Concentration units: A — mol %; B — vol % solvent; C — mol % surfactant mixture; D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M — molar; N — normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.0 E 0 M K CNS	25	1.8 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
5. E-1 M NA CL	30	4. X10-2 D	HE	TURBIDITY PLT LITE SCATR	KURI	62011	T	L
0139				SEE CMPD NMBR IN ADDITV	MANK	64010		X
2. E-1 IONIC STRENGTH	25	9. X10-3 D	HG	*REACTN RATE SULUBILIZATE*	*TONG REEV*	65030	T	L
1.01 E 1 PH OF SOLUTION								
2. E-1 IONIC STRENGTH	UNK	8. X10-3 D	HG	FOTOMTR SPCTR CHNGE RHD6	TONG REEV	65030	T	L
1.01 E 1 PH OF SOLUTION								
5.0 E 0 M NH3	25	2.0 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
5.0 E 0 M NH3	25	1.8 X10-3 D	HG	POLAROGRAPHIC MAXIMUM	COLI	50012	T	L
1. E-1 M NH4 CL								
1. E-1 M NH4 CL								
23 ENTRIES FOR COMPOUND								
COMPOUND NO = 207 MOL WGT - 250.4 P-T-OCTYL BENZENE /OXYETHYLENE/1 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	4.3 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	25	4.85 X10-5 M	BE	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL	L
	25	4.95 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	35	5.6 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	45	6.3 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	55	7.65 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	65	9.65 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	75	1.29 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	85	1.95 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
9 ENTRIES FOR COMPOUND								
COMPOUND NO = 208 MOL WGT - 294.4 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	7.30 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	25	1.32 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL	3
	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
	25	7.65 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	35	7.90 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	45	8.65 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	55	9.65 X10-5 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	65	1.11 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	75	1.32 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	85	1.62 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 209 MOL WGT - 338.5 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	1.02 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	25	9.7 X10-5 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL	3
	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
	25	1.03 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	35	1.07 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	45	1.13 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	55	1.23 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	65	1.39 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	75	1.68 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	85	2.12 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 210 MOL WGT - 382.5 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	1.34 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	25	1.25 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL	3
	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
	25	1.29 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	35	1.30 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	45	1.41 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	55	1.59 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	65	1.72 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	75	1.91 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	85	2.13 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
E 0 0216	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
3.33 E 1 C 0216	25	1.47 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	L	L
5.00 E 1 C 0216	25	1.75 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL	L
6.67 E 1 C 0216	25	2.17 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL	L
14 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 211 MOL WGT = 426.6 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL HOMOGENEOUS, HEAD GROUP								
	15	1.81 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	25	1.54 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	L	3
	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
	25	1.72 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	35	1.64 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	45	1.64 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	55	1.72 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	65	1.90 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	75	2.2 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	85	2.35 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 212 MOL WGT = 470.7 P-T-OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	2.70 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	25	2.05 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	L	3
	5			QUESTIONABLE CRITERION	CROO FORD	63017		R
	5	2.5 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	35	2.37 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	45	2.28 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	640	L	L
	55	2.30 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	65	2.55 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	75	2.87 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	85	3.5 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 213 MOL WGT = 514.7 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	2.91 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	25	2.46 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	L	3
	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
	25	2.68 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	35	2.44 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	45	2.43 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	55	2.41 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	65	2.50 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	75	2.68 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	85	2.90 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 214 MOL WGT = 558.8 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	2.94 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	25	2.80 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL	3
	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
	25	2.83 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	35	2.58 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	45	2.60 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	55	2.46 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	65	2.55 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	75	2.74 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	85	2.98 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 215 MOL WGT = 602.8 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	3.22 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	25	3.35 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL	3
	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
	25	3.04 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	35	2.75 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	45	2.62 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	55	2.70 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	65	2.80 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	75	2.91 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
	85	3.18 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL	L
10 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source Evaluation
COMPOUND NO = 216 MOL WGT = 646.9 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL HOMOGENEOUS HEAD GROUP							
	15	3.30 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL L
	25	3.23 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL L
	25	3.35 X10-4 M	BC	SURFACE TENSION LOG PLOT	CROO FORD	63017	L 3
	5			QUESTIONABLE CRITERION	CROO FORD	63017	R
	35	3.03 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL L
	45	2.80 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL L
	55	2.90 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL L
	65	3.00 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL L
	75	3.12 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL L
	85	3.38 X10-4 M	BD	SURFACE TENSION LOG PLOT	CROO FORD	64014	GL L
0210	25			SEE CMPD NMBR IN ADDITV	CROO FORD	63017	X
E 0 0210	25			QUESTIONABLE CRITERION	CROO FORD	63017	R
12 ENTRIES FOR COMPOUND							
COMPOUND NO = 217 MOL WGT = 250.4 P-T-OCTYL BENZENE /OXYETHYLENE/1 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS							
	25	4.85 X10-5 M	EE	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL L
1 ENTRIES FOR COMPOUND							
COMPOUND NO = 218 MOL WGT = 294.4 P-T-OCTYL BENZENE /OXYETHYLENE/2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS							
	25	6.8 X10-5 M	EC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL L
	25			QUESTIONABLE CRITERION	CROO FORD	63017	R
2 ENTRIES FOR COMPOUND							
COMPOUND NO = 219 MOL WGT = 338.5 P-T-OCTYL BENZENE /OXYETHYLENE/3 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS							
	25	1.14 X10-4 M	EC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL L
	25			QUESTIONABLE CRITERION	CROO FORD	63017	R
2 ENTRIES FOR COMPOUND							
COMPOUND NO = 220 MOL WGT = 382.5 P-T-OCTYL BENZENE /OXYETHYLENE/4 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS							
	25	1.05 X10-4 M	EC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL L
	25			QUESTIONABLE CRITERION	CROO FORD	63017	R
E 0 0226	25			QUESTIONABLE CRITERION	CROO FORD	63017	R
3.33 E 1 C 0226	25	1.28 X10-4 M	EC	SURFACE TENSION LOG PLOT	CROO FORD	63017	L L
5I00 E 1 C 0226	25	1.53 X10-4 M	EC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL L
6.67 E 1 C 0226	25	2.04 X10-4 M	EC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL L
6 ENTRIES FOR COMPOUND							
COMPOUND NO = 221 MOL WGT = 426.6 P-T-OCTYL BENZENE /OXYETHYLENE/5 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS							
	25	1.17 X10-4 M	EC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL L
	25			QUESTIONABLE CRITERION	CROO FORD	63017	R
2 ENTRIES FOR COMPOUND							
COMPOUND NO = 222 MOL WGT = 470.7 P-T-OCTYL BENZENE /OXYETHYLENE/6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS							
	25	1.80 X10-4 M	EC	SURFACE TENSION LOG PLOT	CROO FORD	63017	L L
	25			QUESTIONABLE CRITERION	CROO FORD	63017	R
2 ENTRIES FOR COMPOUND							
COMPOUND NO = 223 MOL WGT = 514.7 P-T-OCTYL BENZENE /OXYETHYLENE/7 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS							
	25	1.84 X10-4 M	EC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL L
	25			QUESTIONABLE CRITERION	CROO FORD	63017	R
2 ENTRIES FOR COMPOUND							
COMPOUND NO = 224 MOL WGT = 558.8 P-T-OCTYL BENZENE /OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS							
	25	2.47 X10-4 M	EC	SURFACE TENSION LOG PLOT	CROO FORD	63017	GL L
	25			QUESTIONABLE CRITERION	CROO FORD	63017	R
2 ENTRIES FOR COMPOUND							

Concentration units: A—mol %; B—vol % solvent: C—mol % surfactant mixture: D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar: N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 225 MOL WGT = 602.8 P-T-OCTYL BENZENE /OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	25	2.90 X10-4 M	EC	SURFACE TENSION MINIMUM	CROO FORD	63017	L	L
	5			QUESTIONABLE CRITERION	CROO FORD	63017		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 226 MOL WGT = 646.9 P-T-OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	25	3.20 X10-4 M	EC	SURFACE TENSION MINIMUM	CROO FORD	63017	GL	L
	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
0220	25			SEE CMPD NMBR IN ADDITV	CROO FORD	63017		X
E 0 0220	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 227 MOL WGT = 911.3 P-T-OCTYL BENZENE /OXYETHYLENE/16 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	25	4.3 X10-4 M	EC	SURFACE TENSION MINIMUM	CROO FORD	63017	GL	L
	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 228 MOL WGT = 1,968.7 P-T-OCTYL BENZENE /OXYETHYLENE/40 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	25	8.1 X10-4 M	EC	SURFACE TENSION MINIMUM	CROO FORD	63017	GL	L
	25			QUESTIONABLE CRITERION	CROO FORD	63017		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 229 MOL WGT = 286.3 SODIUM TRIDECANE 1-SULFONATE								
	50	3.52 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 230 MOL WGT = 314.4 SODIUM PENTADECANE 1-SULFONATE								
	50	6.6 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 231 MOL WGT = 342.5 SODIUM HEPTADECANE 1-SULFONATE								
	50	2.1 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 232 MOL WGT = 334.5 OCTADECANE 1-SULFONIC ACID								
	50	1.0 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	UNK	1.0 X10-4 M	BD	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 233 MOL WGT = 352.3 DISODIUM ALPHA SULFO MYRISTATE								
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 234 MOL WGT = 380.4 DISODIUM ALPHA SULFO PALMITATE								
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 235 MOL WGT = 302.3 SODIUM ALPHA SULFO LAURIC ACID								
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 236 MOL WGT = 330.4 SODIUM ALPHA SULFO MYRISTIC ACID								
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 237 MOL WGT = 358.4 SODIUM ALPHA SULFO PALMITIC ACID								
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 238 MOL WGT = 288.3 SODIUM DODECANE 1-HYDROXY 2-SULFONATE								
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 239 MOL WGT = 316.4 SODIUM TETRADECANE 1-HYDROXY 2-SULFONATE								
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 240 MOL WGT = 344.4 SODIUM HEXADECANE 1-HYDROXY 2-SULFONATE								
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 241 MOL WGT = 372.5 SODIUM OCTADECANE 1-HYDROXY 2-SULFONATE								
	25			QUESTIONABLE CRITERION	WEIL STIR	63013		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 242 MOL WGT = 264.4 TRIDECANE 1-SULFONIC ACID								
	50	2.60 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	UNK	2.53 X10-3 M	BB	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 243 MOL WGT = 278.4 TETRADECANE 1-SULFONIC ACID								
	25	2.6 X10-3 W	CF	EQUIV CONDCTNCE GRAPH	MCBA DYE	39011	T	L
	25	2.10 X10-3 W	CA	SPECFC CONDCTNCE GRAPH	MCBA DYE	39011	P	L
	50	1.32 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	UNK	1.36 X10-3 M	BB	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 244 MOL WGT = 292.4 PENTADECANE 1-SULFONIC ACID								
	50	4.8 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	UNK	7.9 X10-4 M	BC	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 245 MOL WGT = 306.5 HEXADECANE 1-SULFONIC ACID								
	40	5.9 X10-4 M	DB	SPECFC CONDCTNCE GRAPH	HART	36002	P	L
	50	2.8 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	60	8.25 X10-4 M	DA	SPECFC CONDCTNCE GRAPH	HART	36002	P	L
	80	1.24 X10-3 M	DA	SPECFC CONDCTNCE GRAPH	HART	36002	P	L
	UNK	4.2 X10-4 M	BC	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
8.4 E 2 I PENTANOL-1	60	7.5 X10-4 M	DB	SPECFC CONDCTNCE GRAPH	HART	36002	P	L
5.63 E 1 H GLYCEROL	60	2.80 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	HART	36002	P	L
9.58 E 1 I H CL	60	6.1 X10-4 M	DB	SPECFC CONDCTNCE GRAPH	HART	36002	P	L
8 ENTRIES FOR COMPOUND								
COMPOUND NO = 246 MOL WGT = 320.5 HEPTADECANE 1-SULFONIC ACID								
	50	1.4 X10-4 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	UNK	1.8 X10-4 M	BD	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 247 MOL WGT = 266.3 DODECANE 1-HYDROXY 2-SULFONIC ACID								
	50	1.61 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	UNK	1.31 X10-2 M	BB	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 248 MOL WGT = 294.4 TETRADECANE 1-HYDROXY 2-SULFONIC ACID								
	50	2.61 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	UNK	1.94 X10-3 M	BB	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 249 MOL WGT = 322.5 HEXADECANE 1-HYDROXY 2-SULFONIC ACID								
	50	5.8 X10-4 M		VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	UNK	6.5 X10-4 M	BB	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
2 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 250 MOL WGT = 350.5 OCTADECANE 1-HYDROXY 2-SULFONIC ACID								
	50	2.1 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	63013	T	L
	UNK	2.2 X10-4 M	CC	SURFACE TENSION LOG PLOT	WEIL STIR	63013	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 251 MOL WGT = 173.3 OCTYL DIMETHYL AMINE OXIDE								
	25	1.6 X10-2 M	BD	HEAT OF DILUTION	BENJ	64016	L	L
	27	1.5 X10-1 M	BC	TURBIDITY PLT LITE SCATR	HERR	62005	G	L
	30	2.4 X10 0 P	BC	DENSITY	BENJ	66040	T	L
		1.38 X10-1 S					M	
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 252 MOL WGT = 201.3 DECYL DIMETHYL AMINE OXIDE								
	25	1.9 X10-2 M	BD	HEAT OF DILUTION	BENJ	64016	L	L
	27	1.5 X10-2 M	BC	TURBIDITY PLT LITE SCATR	HERR	62005	G	L
	30	3.3 X10-1 P	BC	DENSITY	BENJ	66040	T	L
		1.63 X10-2 S					M	
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 253 MOL WGT = 257.5 TETRADECYL DIMETHYL AMINE OXIDE								
	27	2.7 X10-4 M	BC	TURBIDITY PLT LITE SCATR	HERR	62005	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 254 MOL WGT = 187.3 NONYL DIMETHYL AMINE OXIDE								
	25	5.4 X10-2 M	BC	HEAT OF DILUTION	BENJ	64016	L	3
	30	1.1 X10 0 P	BD	DENSITY	BENJ	66040	T	L
		5.87 X10-2 S					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 255 MOL WGT = 354.6 POTASSIUM 9,10 DIHYDROXY STEARATE								
	55	1.1 X10-2 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
	55	8.0 X10-3 M	XB	REFRACTIVE INDEX	KLEV	53010	T	L
1. E-3 M K OH	60	7.5 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	GREG TART	48012	T	3
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 256 MOL WGT = 322.6 POTASSIUM STEARATE								
	55	4.5 X10-4 M	XE	REFRACTIVE INDEX	KLEV	53010	T	L
1. E-3 M K OH	60	5. X10-4 M	BE	EQUIV CONDCTNCE GRAPH	GREG TART	48012	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 257 MOL WGT = 332.3 SODIUM DI-N-BUTYL SULFOSUCCINATE								
	25	2.0 X10-1 M	BC	SURFACE TENSION LOG PLOT	WILL DIXO	57009	TL	L
	29.9	2.1 X10-1 M	BE	SPECFC CONDCTNCE GRAPH	MILL DIXO	58001	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 258 MOL WGT = 360.3 SODIUM DI-N-AMYL SULFOSUCCINATE								
		48016		VALUES FRM REF IN CMC	KOLT STRI	49005		R
	25	5.3 X10-2 M	BC	SURFACE TENSION LOG PLOT	WILL DIXO	57009	AL	3
	29.9	7.3 X10-2 M	BE	SPECFC CONDCTNCE GRAPH	MILL DIXO	58001	T	L
	30	9.5 X10-2 M	HD	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	50	9.5 X10-2 M	HD	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
5. E-1 N NA CL	50	4.5 X10-2 M	HE	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
1. E 0 N NA CL	50	2.5 X10-2 M	HE	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T	L
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 259 MOL WGT = 388.4 SODIUM DI-N-HEXYL SULFOSUCCINATE								
	25.0	1.0 X10 0 P	HD	DENSITY	VETT	47011	T	L
	25.0	1.1 X10 0 P	HD	VISCOSITY	VETT	47011	T	L
	25	1.24 X10-2 M	BC	SURFACE TENSION LOG PLOT	WILL DIXO	57009	TL	3
	25	2.7 X10-2 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T	L
	29.9	1.28 X10-2 M	BE	SPECFC CONDCTNCE GRAPH	MILL DIXO	58001	T	L
	29.9	1.19 X10-2 M	BE	EQUIV CONDCTNCE GRAPH	MILL DIXO	58001	T	L
	UNK	3.8 X10-2 M	BG	METHOD NOT CITED	KLEV CARR	56001	T	L
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 260 MOL WGT = 444.5 SODIUM DI-N-OCTYL SULFOSUCCINATE								
	20	4.5 X10-3 M	HG	FOTOMTR SPCTR CHNGE PNCN	TAUB KONS	60035	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	20	2.7 X10-3 M	HG	FOTOMTR SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
	20	5.4 X10-3 M	HG	VISUAL SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
	20	2.6 X10-3 M	HG	VISUAL SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
	20	2.6 X10-3 M	HG	VISUAL SPCTR CHNGE RHD6	TAUB KONS	60033	T	L
	25	6.8 X10-4 M	BC	SURFACE TENSION LOG PLOT	WILL DIXO	57009	TL	3
	25	9. X10-4 N	HE	UNSPECIFIED CONDUCTANCE	HAFF PICC	42003	T	L
	29.9	6.4 X10-4 M	BE	EQUIV CONDCTNCE GRAPH	MILL DIXO	58001	T	L
	40	5.1 X10-3 M	HC	UNSPECIFIED CONDUCTANCE	TAUB KONS	60033	T	L
	UNK	4. X10-2 M	HE	ELECTROMOTIVE FORCE	STAN RADL	60021	T	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 261 MOL WGT = 332.3				SODIUM DI-ISOBUTYL SULFOSUCCINATE				
	25	2.0 X10-1 M	BC	SURFACE TENSION LOG PLOT	WILL DIXO	57009	TL	L
	25			QUESTIONABLE CRITERION	HAFF PICC	42003		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 262 MOL WGT = 444.5				SODIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE				
	25	2.5 X10-3 M	BC	SURFACE TENSION LOG PLOT	WILL DIXO	57009	TL	3
	25	5.5 X10-3 N	HE	UNSPECIFIED CONDUCTANCE	HAFF PICC	42003	T	L
	29.9	5.6 X10-3 M	BE	EQUIV CONDCTNCE GRAPH	MILL DIXO	58001	T	L
	29.9	6.1 X10-3 M	BE	SPECFC CONDCTNCE GRAPH	MILL DIXO	58001	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 263 MOL WGT = 304.4				SODIUM OLEATE /CIS-9-OCTADECENOATE/				
	20			QUESTIONABLE CRITERION	HESS PHIL	39009		R
	24.7	7. X10-2 P	HD	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
	25	7.2 X10-4 M	HG	FOTOMTR SPCTR CHNGE PNCN	GINN HARR	58008	T	L
	25	2.64 X10-3 M	HC	SPECFC CONDCTNCE GRAPH	GINN HARR	58008	T	L
	25	2.9 X10-2 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
	25	2.10 X10-3 M	DC	SPECFC CONDCTNCE GRAPH	FLOC GRAH	53004	P	L
	40	2.15 X10-3 M	DC	SPECFC CONDCTNCE GRAPH	FLOC GRAH	53004	P	L
	40	3.0 X10-3 M	DD	SPECFC CONDCTNCE GRAPH	TAMA SHIR	58007	P	L
	50	3.5 X10-3 M	HC	SPECFC CONDCTNCE GRAPH	MARO ELDE	54006	T	L
	60	3.2 X10-3 M	DD	SPECFC CONDCTNCE GRAPH	TAMA SHIR	58007	P	L
	60			QUESTIONABLE CRITERION	TAMA NAKA	53001		R
	75	3.5 X10-2 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
	UNK	1.4 X10-3 M	DD	WIEN EFFECT	EXNE	48018	T	L
	UNK	6.1 X10-2 D	HB	SPECFC CONDCTNCE GRAPH	HARR	58004	K	L
	UNK	1. X10-3 M	DG	FOTOMTR SPCTR CHNGE PNCN	TAMA SHIR	58007	T	L
	UNK	2.7 X10-3 M	DD	EQUIV CONDCTNCE GRAPH	TAMA SHIR	58007	T	L
5. E-2 P DECANOL-1	24.7	3. X10-2 P	HE	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
2. E 0 M ETHANOL	40	1.7 X10-3 M	DD	AVER SP EQUIV COND	TAMA SHIR	58007	P	L
7. E-2 P LAURYL ALCOHOL	24.7	4. X10-2 P	HE	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
4. E 0 I NA OH	25	1.5 X10-3 W	DG	VISUAL SPCTR CHNGE RHD6	FINE MCBA	48011	T	L
6. E 0 I NA OH	25	1.5 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	FLOC GRAH	53004	T	L
1.67 E 1 I NA OH	25	1.2 X10-3 M	CD	EQUIV CONDCTNCE GRAPH	FLOC GRAH	53004	T	L
3.4 E 0 I OLEIC ACID	25	2.0 X10-3 M	DD	EQUIV CONDCTNCE GRAPH	FLOC GRAH	53004	K	L
1.1 E 1 PH OF SOLUTION	5	0. X10-4 M	BD	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	25	1.0 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	40	1.6 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	60	2.3 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	90	3.3 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.0 E-1 P TRIBUTYL PHOSPHATE	24.7	4. X10-2 P	HE	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
2.0 E-1 P TRIBUTYL PHOSPHATE	24.7	5. X10-2 P	HD	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
30 ENTRIES FOR COMPOUND								
COMPOUND NO = 264 MOL WGT = 304.4				SODIUM ELAIDATE /TRANS-9-OCTADECENOATE/				
	40	1.4 X10-3 M	DD	AVER SP EQUIV COND	TAMA SHIR	58007	P	L
	40	2.5 X10-3 M	DD	SPECFC CONDCTNCE GRAPH	TAMA SHIR	58007	P	L
	60	2.6 X10-3 M	DD	SPECFC CONDCTNCE GRAPH	TAMA SHIR	58007	P	L
	60			QUESTIONABLE CRITERION	TAMA NAKA	53001		R
	UNK	1. X10-3 M	DG	FOTOMTR SPCTR CHNGE PNCN	TAMA SHIR	58007	T	L
	UNK	2.5 X10-3 M	DD	EQUIV CONDCTNCE GRAPH	TAMA SHIR	58007	T	L
6 ENTRIES FOR COMPOUND								
COMPOUND NO = 265 MOL WGT = 320.0				HEXADECYL TRIMETHYL AMMONIUM CHLORIDE				
	30	1.3 X10-3 M	BD	EQUIV CONDCTNCE GRAPH	RALS EGGE	47003	T	L
	UNK	1.5 X10-3 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
2 ENTRIES FOR COMPOUND								

Concentration units: A — mol %, B — vol % solvent, C — mol % surfactant mixture, D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M molar; N normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 266 MOL WGT = 350.0 HEXADECYL DIMETHYL 2-HYDROXYETHYL AMMONIUM CHLORIDE								
	30	1.2 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	RALS EGGE	47003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 267 MOL WGT = 380.1 HEXADECYL DI-/2-HYDROXYETHYL/METHYL AMMONIUM CHLORIDE								
	30	1.0 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	RALS EGGE	47003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 268 MOL WGT = 410.1 HEXADECYL TRI-/2-HYDROXYETHYL/ AMMONIUM CHLORIDE								
	30	1.0 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	RALS EGGE	47003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 269 MOL WGT = 380.1 HEXADECYLDIMETHYL2,3-DIHYDROXYPROPYLAMMONIUM CHLORIDE								
	30	1.6 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	RALS EGGE	47003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 270 MOL WGT = 348.1 OCTADECYL TRIMETHYLAMMONIUM CHLORIDE								
	25	3.4 X10-4 M	BD	EQUIV CONDCTNCE GRAPH	GRIE KRAU	48010	T	L
	30	4. X10-4 M	CE	EQUIV CONDCTNCE GRAPH	RALS EGGE	47003	T	L
	30	3. X10-4 M	CD	EQUIV CONDCTNCE GRAPH	RALS EGGE	47003	K	L
	UNK	3.46 X10-4 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
4.74 E O H METHANOL	*25*	*4.00 X10-4 M*	*BB*	*EQUIV CONDCTNCE GRAPH*	*GRIE KRAU*	*48010*	*P*	*3*
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 271 MOL WGT = 306.3 SODIUM TRI-ISO-PROPYL BENZENE SULFONATE								
	31	6.5 X10-2 M	FC	KRAFFT POINT SOLUBILITY	SHUC LING	49004	K	L
	50	6.1 X10-2 M	FG	UNSPEC SPCTR CHNG PNCN	SHUC LING	49004	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 272 MOL WGT = 284.3 TRI-ISOPROPYL BENZENE SULFONIC ACID								
	50	5.5 X10-2 M	FB	EQUIV CONDCTNCE GRAPH	SHUC LING	49004	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 273 MOL WGT = 222.3 SODIUM DODECANOATE								
		59016		VALUES FRM REF IN CMC	BOTR CRES	60024		R
		42004		VALUES FRM REF IN CMC	EKWA	40003		R
				QUESTIONABLE CRITERION	EKWA LIND	41004		R
	17	2.7 X10-2 M	DC	EQUIV CONDCTNCE GRAPH	EKWA	27001	L	L
	20	3.1 X10-2 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T	L
	20			QUESTIONABLE CRITERION	HESS PHIL	39009		R
	20	2.84 X10-2 M	DB	EQUIV CONDCTNCE GRAPH	EKWA	42004	P	L
	25	2.60 X10-2 M	HC	FOTOMTR SOLUBLZTN PDMAB	GINN KINN	59009	T	L
	25	2.64 X10-2 M	HC	FOTOMTR SOLUBLZTN OROT	GINN KINN	59009	T	L
	25	2.6 X10-2 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L
	25	2.77 X10-2 M	DB	EQUIV CONDCTNCE GRAPH	EKWA	42004	P	L
	25	2.37 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
	25	2.44 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	3
	25	2.30 X10-2 M	DG	SURFACE TENSION MINIMUM	CAMP LAKS	65024	T	L
	30	2.72 X10-2 M	DB	EQUIV CONDCTNCE GRAPH	EKWA	42004	P	L
	30	2.55 X10-2 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	30	2.53 X10-2 M	DB	FOTOMTR SOLUBLZTN OROT	KOLT STRI	48016	T	L
	35	2.66 X10-2 M	DB	EQUIV CONDCTNCE GRAPH	EKWA	42004	P	L
	35	2.50 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	L
	40	2.64 X10-2 M	DB	EQUIV CONDCTNCE GRAPH	EKWA	42004	P	L
	40	2.5 X10-2 M	DC	FOTOMTR SOLUBLZTN PDMAB	KOLT JOHN	46006	T	L
	45	2.69 X10-2 M	DB	EQUIV CONDCTNCE GRAPH	EKWA	42004	P	L
	50	2.72 X10-2 M	DB	EQUIV CONDCTNCE GRAPH	EKWA	42004	P	L
	50	2.55 X10-2 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	50	2.3 X10-2 M	DC	FOTOMTR SOLUBLZTN PDMAB	KOLT JOHN	46006	T	L
	50	2.80 X10-2 M	DG	SURFACE TENSION MINIMUM	CAMP LAKS	65024	T	L
	50	1.91 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	RAIS	52016	T	L
	50	48016		VALUES FRM REF IN CMC	KOLT STRI	49005		R
	50	2.15 X10-2 M	HB	SPECFC CONDCTNCE GRAPH	MARO ELDE	54006	T	L
	60	2.6 X10-2 M	DC	PH OR HYDROLYSIS	STAU	39006	G	L
	60	2.6 X10-2 M	DG	SOLUBLZTN TOLUENE	DEMC DUMA	60032	T	L
	60	5.6 X10-1 D	DG	SOLUBLZTN TOLUENE	DEMC	60034	T	L
		2.51 X10-2 M					M	
	60	2.4 X10-2 M	DC	FOTOMTR SOLUBLZTN OROT	MERR GETT	48024	T	L
	RM	2.7 X10-2 M	DC	ULTRAFILTRATION	EKWA	27001	L	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Complete Table of Critical Micelle Concentration Values—Continued

CMC	Additives	Temp. °C	Qual. Mat. Meth.	Method	Authors	Reference	Source Evaluation
		RM	DE	PH OR HYDROLYSIS	EKWA	27001	L L
		UNK	DE	ELECTROMOTIVE FORCE	CARR JOHN	47013	T L
		UNK	DC	FOTOMTR SOLUBLZTN PDMAB	CARR JOHN	47013	T L
		UNK	DB	UNSPECIFIED CONDUCTANCE	BOTR CRES	59016	T L
		UNK	DD	ELECTROMOTIVE FORCE	BOTR CRES	59016	T L
		UNK	DG	VISUAL SPCTR CHNGE PNCN	DEMC	60034	T L
							M
		UNK	CG	VISUAL SPCTR CHNGE PNCN	DEMC	61030	T L
							M
		UNK	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T L
							M
5.83 E-3 M	CALGON (NA HXMTP*)	25	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
1.11 E-2 M	CALGON (NA HXMTP*)	25	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
2.18 E-2 M	CALGON (NA HXMTP*)	25	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
4.35 E-2 M	CALGON (NA HXMTP*)	25	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
9.6 E-3 M	CARBOXYMETHYLCELLULO	23	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
1.96 E-2 M	CARBOXYMETHYLCELLULO	23	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
E 0	NA H CO3	UNK		GRAPH DATA NOT RETRIEVED	DEMC ZAKH	62038	R
2.18 E-2 M	NA CL	25	DG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
3.0 E-2 M	NA CL	25	DG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
4.23 E-2 M	NA CL	25	DG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
6.9 E-2 M	NA CL	25	DG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
1. E-1 N	NA CL	50	DD	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T L
5. E-1 N	NA CL	50	DE	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T L
1. E 0 N	NA CL	50	DE	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	49005	T L
E 0	NA CL	UNK		GRAPH DATA NOT RETRIEVED	DEMC	61030	R
7.57 E-3 M	NA2 CO3	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
1.03 E-2 M	NA2 CO3	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
1.24 E-2 M	NA2 CO3	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
2.64 E-2 M	NA2 CO3	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
3.63 E-2 M	NA2 CO3	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
4.25 E-2 M	NA2 CO3	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
4.66 E-2 M	NA2 CO3	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
5.46 E-2 M	NA2 CO3	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
6.39 E-2 M	NA2 CO3	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
E 0	NA2 CO3	UNK		GRAPH DATA NOT RETRIEVED	DEMC ZAKH	62038	R
E 0	NA NO3	UNK		GRAPH DATA NOT RETRIEVED	DEMC	61030	R
7.29 E-3 M	NA OH	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
1.07 E-2 M	NA OH	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
3.17 E-2 M	NA OH	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
5.09 E-2 M	NA OH	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
6.45 E-2 M	NA OH	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
7.84 E-2 M	NA OH	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
4. E 0 I	NA OH	25	CG	VISUAL SPCTR CHNGE RHD6	FINE MCBA	48011	T L
E 0	NA OH	50	CC	VAPR PRESURE LOWERING	HUFF MCBA	51004	T L
1. E-1 H	NA OH	70	CC	SURFACE TENSION LOG PLOT	POWN ADDI	38006	T L
1. E-1 H	NA OH	70	CC	INTERFACIAL TENSION LOGM	POWN ADDI	38006	T L
E 0	NA OH	UNK		GRAPH DATA NOT RETRIEVED	DEMC ZAKH	62038	R
1.81 E-3 M	NA4 P207 PYRO	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
3.15 E-3 M	NA4 P207 PYRO	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
4.3 E-3 M	NA4 P207 PYRO	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
5.4 E-3 M	NA4 P207 PYRO	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
2.04 E-2 M	NA4 P207 PYRO	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
2.59 E-2 M	NA4 P207 PYRO	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
3.15 E-2 M	NA4 P207 PYRO	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
9.2 E-3 M	NA P04	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
1.54 E-2 M	NA P04	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
2.39 E-2 M	NA P04	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
2.44 E-2 M	NA P04	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
4.0 E-2 M	NA P04	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
E 0	NA P04	UNK		GRAPH DATA NOT RETRIEVED	DEMC ZAKH	62038	R
E 0	NA2 S04	UNK		GRAPH DATA NOT RETRIEVED	DEMC	61030	R
9.9 E-3 M	NA2 B407	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
1.67 E-2 M	NA2 B407	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
2.78 E-2 M	NA2 B407	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
2.82 E-2 M	NA2 B407	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
4.40 E-2 M	NA2 B407	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
E 0	NA2 B407	UNK		GRAPH DATA NOT RETRIEVED	DEMC ZAKH	62038	R
6.51 E-3 M	NA2 SI03 META	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
7.63 E-3 M	NA2 SI03 META	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
9.29 E-3 M	NA2 SI03 META	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
1.04 E-2 M	NA2 SI03 META	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
1.21 E-2 M	NA2 SI03 META	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
2.55 E-2 M	NA2 SI03 META	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
4.04 E-2 M	NA2 SI03 META	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L
5.15 E-2 M	NA2 SI03 META	25	CG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
8.9 E-3 M SIO2/NA20 = 1.60	25	1.72 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
1.52 E-2 M SIO2/NA20 = 1.60	25	1.47 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
1.57 E-2 M SIO2/NA20 = 1.60	25	1.51 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
2.05 E-2 M SIO2/NA20 = 1.60	25	1.32 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
2.47 E-2 M SIO2/NA20 = 1.60	25	1.19 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
3.34 E-2 M SIO2/NA20 = 1.60	25	1.08 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
1.25 E-2 M SIO2/NA20 = 1.60	60	1.8 X10-2 M	HD	FOTOMTR SOLUBLZTN OROT	MERR GETT	48024	T	L
2.5 E-2 M SIO2/NA20 = 1.60	60	1.4 X10-2 M	HD	FOTOMTR SOLUBLZTN OROT	MERR GETT	48024	T	L
9.8 E-3 M SIO2/NA20 = 2.46	25	1.96 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
2.09 E-2 M SIO2/NA20 = 2.46	25	1.56 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
2.84 E-2 M SIO2/NA20 = 2.46	25	1.42 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
3.46 E-2 M SIO2/NA20 = 2.46	25	1.30 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
4.35 E-2 M SIO2/NA20 = 2.46	25	1.09 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
5.82 E-2 M SIO2/NA20 = 2.46	25	9.75 X10-3 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
2.5 E-2 M SIO2/NA20 = 2.46	60	1.4 X10-2 M	HD	FOTOMTR SOLUBLZTN OROT	MERR GETT	48024	K	L
4.3 E-3 M SIO2/NA20 = 3.93	25	2.18 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
8.3 E-3 M SIO2/NA20 = 3.93	25	2.08 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
1.20 E-2 M SIO2/NA20 = 3.93	25	2.00 X10-2 M	HG	VISUAL SPCTR CHNGE PNCN	MERR GETT	48024	T	L
2.5 E-2 M SIO2/NA20 = 3.93	60	1.4 X10-2 M	HD	FOTOMTR SOLUBLZTN OROT	MERR GETT	48024	K	L
1.1 E 1 PH OF SOLUTION	24	2.3 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	T	L
1.1 E 1 PH OF SOLUTION	24	2.3 X10-2 M	BC	SURFACE TENSION LOG PLOT	HARV	56018	T	3
1.1 E 1 PH OF SOLUTION	30	2.25 X10-2 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	3
1.1 E 1 PH OF SOLUTION	40	2.25 X10-2 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	50	2.25 X10-2 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	60	2.25 X10-2 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	90	2.25 X10-2 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
3.2 E-4 M 1,2 DECANE DIOL 1.1 E 1 PH OF SOLUTION	24	2.11 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
7.0 E-4 M 1,2 DECANE DIOL 1.1 E 1 PH OF SOLUTION	24	1.86 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
8.9 E-4 M 1,2 DECANE DIOL 1.1 E 1 PH OF SOLUTION	24	1.71 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.20 E-3 M 1,2 DECANE DIOL 1.1 E 1 PH OF SOLUTION	24	1.80 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.51 E-3 M 1,2 DECANE DIOL 1.1 E 1 PH OF SOLUTION	24	1.85 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.84 E-3 M 1,2 DECANE DIOL 1.1 E 1 PH OF SOLUTION	24	1.92 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
3.2 E-4 M 1,10 DECANE DIOL 1.1 E 1 PH OF SOLUTION	24	2.22 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.02 E-3 M 1,10 DECANE DIOL 1.1 E 1 PH OF SOLUTION	24	2.08 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
2.02 E-3 M 1,10 DECANE DIOL 1.1 E 1 PH OF SOLUTION	24	1.85 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
4.10 E-3 M 1,10 DECANE DIOL 1.1 E 1 PH OF SOLUTION	24	1.39 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
4.6 E-5 M DECANOL-1 1.1 E 1 PH OF SOLUTION	24	2.20 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
8.5 E-5 M DECANOL-1 1.1 E 1 PH OF SOLUTION	24	2.17 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.05 E-4 M DECANOL-1 1.1 E 1 PH OF SOLUTION	24	2.15 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.46 E-4 M DECANOL-1 1.1 E 1 PH OF SOLUTION	24	2.15 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.61 E-4 M DECANOL-1 1.1 E 1 PH OF SOLUTION	24	2.15 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.99 E-4 M DECANOL-1 1.1 E 1 PH OF SOLUTION	24	2.12 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
7.7 E-3 M HEXANOL-1 1.1 E 1 PH OF SOLUTION	24	2.00 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.12 E-2 M HEXANOL-1 1.1 E 1 PH OF SOLUTION	24	1.88 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.58 E-2 M HEXANOL-1 1.1 E 1 PH OF SOLUTION	24	1.78 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
2.20 E-2 M HEXANOL-1 1.1 E 1 PH OF SOLUTION	24	1.55 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
2.92 E-2 M HEXANOL-1 1.1 E 1 PH OF SOLUTION	24	1.24 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
3.10 E-2 M HEXANOL-1 1.1 E 1 PH OF SOLUTION	24	1.30 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
4.02 E-2 M HEXANOL-1 1.1 E 1 PH OF SOLUTION	24	1.02 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
4.11 E-2 M HEXANOL-1 1.1 E 1 PH OF SOLUTION	24	9.5 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
4.97 E-2 M HEXANOL-1 1.1 E 1 PH OF SOLUTION	24	8.8 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
5.70 E-2 M HEXANOL-1	24	7.1 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
5.85 E-2 M HEXANOL-1	24	7.5 X10-3 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
1.13 E-3 M HEPTANOL-1	24	2.13 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
2.02 E-3 M HEPTANOL-1	24	2.06 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
3.01 E-3 M HEPTANOL-1	24	2.00 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
6.14 E-3 M HEPTANOL-1	24	1.68 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
7.98 E-3 M HEPTANOL-1	24	1.50 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
9.98 E-3 M HEPTANOL-1	24	1.40 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
1.13 E-2 M HEPTANOL-1	24	1.45 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
1.24 E-2 M HEPTANOL-1	24	1.55 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
6.4 E-4 M OCTANOL-1	24	2.10 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
1.27 E-3 M OCTANOL-1	24	1.90 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
1.60 E-3 M OCTANOL-1	24	1.93 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
1.92 E-3 M OCTANOL-1	24	1.90 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
2.30 E-3 M OCTANOL-1	24	1.95 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
2.69 E-3 M OCTANOL-1	24	1.95 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	HARV	56018	G	L
1.1 E 1 PH OF SOLUTION								
174 ENTRIES FOR COMPOUND								
COMPOUND NO = 274 MOL WGT - 340.0 HEXADECYL PYRIDINIUM CHLORIDE								
	13.0	8.4 X10-4 M	BC	KRAFFT POINT SOLUBILITY	ADDI FURM	56019	T	L
	18.5	8.5 X10-4 M	BC	INTERFACIAL TNSN UNSPEC	ADDI FURM	56019	T	L
	23	5.0 X10-4 M	HG	STREAMING CURRENT	CARD	66011	T	L
	25	9. X10-4 M	BD	EQUIV CONDCTNCE GRAPH	MALS HART	34001	K	L
	25	9.0 X10-4 M	BB	FOTOMTR SOLUBLZTN AZBZ	HART	38001	P	3
	25	6.7 X10-4 M	BG	EQUIV COND MAX BEGINING	GRIE KRAU	49018	T	L
	25	3. X10-5 W	HG	VISUAL SPCTR CHNGE	FINE MCBA	48011	T	L
	80	2.2 X10-3 M	BG	EQUIV COND 1ST DEVIATION	HART	36002	T	L
	80	2.36 X10-3 M	BC	SPECFC CONDCTNCE GRAPH	HART	36002	P	3
3.2 E-3 N NA CL	25	4.0 X10-4 M	BD	FOTOMTR SOLUBLZTN AZBZ	HART	38001	P	L
1.0 E-2 N NA CL	25	1.8 X10-4 M	BD	FOTOMTR SOLUBLZTN AZBZ	HART	38001	P	L
3.2 E-2 N NA CL	25	8. X10-5 M	BE	FOTOMTR SOLUBLZTN AZBZ	HART	38001	P	L
7.43 E-3 M NA CL	31	1.6 X10-4 M	BG	TURBIDITY PLT LITE SCATR	ANAC	58009	G	L
1.754E-2 M NA CL	31	1.2 X10-4 M	BG	TURBIDITY PLT LITE SCATR	ANAC	58009	G	L
4.05 E-2 M NA CL	31	8.3 X10-5 M	BG	TURBIDITY PLT LITE SCATR	ANAC	58009	G	L
3.08 E-1 M NA CL	31	3.2 X10-5 M	BG	TURBIDITY PLT LITE SCATR	ANAC	58009	G	L
4.382E-1 M NA CL	31	6.9 X10-5 M	BG	TURBIDITY PLT LITE SCATR	ANAC	58009	G	L
6.17 E-1 M NA CL	31	3.3 X10-5 M	BG	TURBIDITY PLT LITE SCATR	ANAC	58009	G	L
7.30 E-1 M NA CL	31	9.6 X10-6 M	BG	TURBIDITY PLT LITE SCATR	ANAC	58009	G	L
1.00 E 2 E NITROBENZENE	25	5.8 X10-4 M	BA	EQUIV CONDCTNCE GRAPH	GRIE KRAU	49018	T	3
20 ENTRIES FOR COMPOUND								
COMPOUND NO = 275 MOL WGT - 396.1 HEXADECYL DIMETHYLBENZYLAMMONIUM CHLORIDE								
	23	4.2 X10-5 M	HG	STREAMING CURRENT	CARD	66011	T	L
	25	2. X10-4 W	HG	VISUAL SPCTR CHNGE	FINE MCBA	48011	T	L
	UNK	4.4 X10-5 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 276 MOL WGT - 596.8 NONAETHYLENE GLYCOL MONODODECANOATE NATURAL DISTRIBUTION OF HEAD GROUPS								
	0	6.3 X10-4 W	HD	FREEZING POINT	GONI MCBA	47007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 277 MOL WGT - 349.6 BENZYL TRIMETHYL AMMONIUM DODECANOATE								
4. E 0 I C6H5 (CH3)3 N OH	25	1 X10-2 M	HE	EQUIV CONDCTNCE GRAPH	BRAD MCBA	48009	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 278 MOL WGT – 283.9 DODECYL PYRIDINIUM CHLORIDE								
				QUESTIONABLE CRITERION	BROW ROBI	52013		R
	25	1.5 X10-2 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L
	25	2.8 X10-3 M	HE	EQUIV CONDCTNCE GRAPH	BRAD MCBA	48009	T	L
	25	1.47 X10-2 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
	25	1.46 X10-2 M	CB	SURFACE TENSION UNSPEC	FORD OTTE	66028	T	L
	25	1.4 X10-2 M	BC	SURFACE TENSION LOG PLOT	WEIN ZOGR	65026	T	L
	30	2.0 X10-2 W	CC	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
	30	1.74 X10-2 M	CB	SPECFC CONDCTNCE GRAPH	MEGU KOND	59024	T	L
	30	1.71 X10-2 M	CG	POTOMTR SPCTR CHNGE EOSN	MEGU KOND	59024	T	L
	30	1.5 X10-2 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
	50	2.0 X10-2 W	CC	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
	50	1.51 X10-2 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
2. E-2 M K CL	25	1.13 X10-2 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	L
2. E-2 M K CL	25	1.22 X10-2 M	CB	SURFACE TENSION UNSPEC	FORD OTTE	66028	T	L
5. E-2 M K CL	25	8.46 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	L
5. E-2 M K CL	25	8.60 X10-3 M	CB	SURFACE TENSION UNSPEC	FORD OTTE	66028	T	L
8. E-2 M K CL	25	6.88 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	L
1. E-1 M K CL	25	2.3 X10-3 M	BC	SURFACE TENSION LOG PLOT	WEIN ZOGR	65026	T	L
2. E-3 N K CNS	50	7.5 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1. E-2 N K CNS	50	3.5 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
3. E-2 N K CNS	50	2.4 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1. E-2 N NA BR	50	9.6 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
3. E-2 N NA BR	50	6.5 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1. E-1 N NA BR	50	2.8 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
5. E-1 N NA BR	50	1.5 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
5. E-3 M NA CL	50	1.33 X10-2 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1. E-2 M NA CL	50	1.16 X10-2 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
2. E-2 M NA CL	50	9.3 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
5. E-2 M NA CL	50	6.5 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1.0 E-1 M NA CL	50	4.9 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
3. E-1 M NA CL	50	2.9 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1.0 E 0 M NA CL	50	1.4 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1. E-2 N NA I	50	6.5 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
2.5 E-2 N NA I	50	4.0 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
9. E-2 N NA I	50	2.5 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1. E-2 N NA NO3	50	9.6 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
3. E-2 N NA NO3	50	5.6 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1. E-1 N NA NO3	50	3.4 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
5. E-1 N NA NO3	50	1.9 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1. E-3 N NA4 P207 PYRO	50	1.01 X10-2 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
2. E-3 N NA4 P207 PYRO	50	7.5 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
5. E-3 N NA4 P207 PYRO	50	6.0 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1. E-2 N NA4 P207 PYRO	50	4.7 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
2. E-2 N NA4 P207 PYRO	50	4.6 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
5. E-2 N NA4 P207 PYRO	50	4.8 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1.0 E-1 N NA4 P207 PYRO	50	4.6 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
2. E-1 N NA4 P207 PYRO	50	4.0 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
4. E-1 N NA4 P207 PYRO	50	3.3 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1.0 E 0 N NA4 P207 PYRO	50	2.2 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
2. E-3 N NA2 SO4	50	1.11 X10-2 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
5. E-3 N NA2 SO4	50	8.6 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1. E-2 N NA2 SO4	50	7.8 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
2. E-2 N NA2 SO4	50	7.1 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
3. E-2 N NA2 SO4	50	6.7 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
5. E-2 N NA2 SO4	50	5.9 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1.0 E-1 N NA2 SO4	50	5.4 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
3.0 E-1 N NA2 SO4	50	3.8 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
1.0 E 0 N NA2 SO4	50	1.8 X10-3 M	CG	VISUAL SPCTR CHNGE EOSN	LANG	51005	G	L
58 ENTRIES FOR COMPOUND								
COMPOUND NO = 279 MOL WGT – 340.0 DODECYL BENZYL DIMETHYLAMMONIUM CHLORIDE								
				QUESTIONABLE CRITERION	YANG FOST	53015		R
	25	2.3 X10-3 M	HC	EQUIV CONDCTNCE GRAPH	BRAD MCBA	48009	T	L
	25.0	7.8 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
	UNK	2.8 X10-3 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
	UNK	8.1 X10-3 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
5. E 2 Y PRESSURE	25.0	8.25 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
1. E 3 Y PRESSURE	25.0	8.5 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
2. E 3 Y PRESSURE	25.0	8.2 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
3. E 3 Y PRESSURE	25.0	7.5 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
4. E 3 Y PRESSURE	25.0	7.1 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
5. E 3 Y PRESSURE	25.0	6.8 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	OSUG SATO	65036	G	3
11 ENTRIES FOR COMPOUND								

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture: U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 280 MOL WGT = 465.8 DECYL TRIMETHYL AMMONIUM DODECYL SULFATE								
	25	1.9 X10-4 M	CE	UNSPEC SOLUBLZTN SDN 4	HOYE MARM	61001	TL	L
	25	2.1 X10-4 M	DC	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
	UNK	1.85 X10-3 D	BD	DEBYE PLT LIGHT SCATTER	HOYE DOER	64007	T	L
		3.971X10-5 M					M	
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 281 MOL WGT = 493.8 DODECYL TRIMETHYLAMMONIUM DODECYL SULFATE								
	25	3. X10-5 M	CE	SURFACE TNSN LINEAR PLOT	HOYE MARM	61001	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 282 MOL WGT = 506.8 HEXADECYL /OXYETHYLENE/ 6 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	20	9.9 X10-5 M	BC	SURFACE TENSION LOG PLOT	CARL CHAL	64009	T	L
	25	1.0 X10-6 M	BD	SURFACE TENSION LOG PLOT	GOOD OTTE	61004	T	P
	25	1.66 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	P
	27	9.4 X10-5 M	BG	FOTOMTR SPCTR CHNG I2	CARL CHAL	64009	T	L
	28	5. X10-5 D	BE	SURFACE TENSION LOG PLOT	CORK GOOD	64023	T	L
		9.8 X10-7 M					M	
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 283 MOL WGT = 399.7 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-ELAIDATE								
	0	6. X10-4 W	DD	FREEZING POINT	GONI MCBA	46016	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 284 MOL WGT = 261.4 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-OCTANOATE								
	0	3.1 X10-1 M	DC	FREEZING POINT	GONI	46019	K	L
	20	2.6 X10-1 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 285 MOL WGT = 399.7 HEXANOLAMINE-CH3CH/OH/CH2C/CH3/2NH2-OLEATE								
	0	6.0 X10-4 W	DD	FREEZING POINT	GONI MCBA	46008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 286 MOL WGT = 439.6 AMMONIUM DI-2-ETHYL-HEXYL SULFOSUCCINATE								
	0	4. X10-3 W	CE	FREEZING POINT	MCBA BRAD	43006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 287 MOL WGT = 365.6 OCTYL TRIMETHYLAMMONIUM OCTANE SULFONATE								
	25	2.1 X10-2 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	L
	25	2.016X10-2 M	CA	SPECFC CONDCTNCE GRAPH	TART LING	43004	T	3
	RM	1.99 X10-2 M	BB	DEBYE PLT LIGHT SCATTER	ANAC	53002	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 288 MOL WGT = 421.7 DECYL TRIMETHYLAMMONIUM DECANESULFONATE								
	25	1.36 X10-3 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
	40	1.40 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	TART LING	43004	P	3
	RM	1.3 X10-3 M	BD	TURBIDITY PLT LITE SCATR	ANAC	53002	KC	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 289 MOL WGT = 478.7 TETRADECYL/OXYETHYLENE/6 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	25	5. X10-4 D	BE	SURFACE TENSION LOG PLOT	CORK GOOD	64023	T	L
		1.0 X10-5 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 290 MOL WGT = 328.3 DODECYL PYRIDINIUM BROMIDE								
	5	1.15 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	10	1.12 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	2
	15	1.10 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	2
	20	1.12 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	2
	25	1.14 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	1
	25	1.6 X10-2 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L
	25	1.16 X10-2 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	L
	25	1.20 X10-2 M	CB	SURFACE TENSION UNSPEC	FORD OTTE	66028	T	L

Concentration units: A — mol %; B — vol % solvent; C — mol % surfactant mixture; D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M — molar; N — normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	25	1.13 X10-2 M	CA	SPECFC CONDCTNCE GRAPH	BENT SPAR	66038	T	1
	25	1.21 X10-2 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	L
	30	1.21 X10-2 M	BB	SURFACE TENSION LOG PLOT	VENA NAUM	64001	T	L
	30	1.18 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	2
	30	1.25 X10-2 M	CA	SPECFC CONDCTNCE GRAPH	MEGU KOND	59024	T	L
	30	1.25 X10-2 M	CG	FOTOMTR SPCTR CHNGE EOSN	MEGU KOND	59024	T	L
	35	1.22 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	2
	40	1.28 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	45	1.35 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	50	1.40 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	55	1.48 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	60	1.54 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	65	1.63 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
	70	1.72 X10-2 W	BA	SPECFC CONDCTNCE GRAPH	ADDE TAYL	64050	T	3
2. E-2 M K BR	25	7.20 X10-3 M	CB	SURFACE TENSION UNSPEC	FORD OTTE	66028	T	L
2. E-2 M K BR	25	7.32 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
4. E-2 M K BR	25	4.88 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
5. E-2 M K BR	25	4.70 X10-3 M	CB	SURFACE TENSION UNSPEC	FORD OTTE	66028	T	L
6. E-2 M K BR	25	3.96 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
8. E-2 M K BR	25	3.36 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
1.0 E-1 M K BR	25	2.74 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	L
3.0 E-2 M K BR	30	6.5 X10-3 M	CG	FOTOMTR SPCTR CHNGE EOSN	MEGU KOND	59024	T	L
3.0 E-2 M K I	30	3.5 X10-3 M	CG	FOTOMTR SPCTR CHNGE EOSN	MEGU KOND	59024	T	L
3.0 E-2 M K IO3	30	1.04 X10-2 M	CG	FOTOMTR SPCTR CHNGE EOSN	MEGU KOND	59024	T	L
3.0 E-2 M K2 SO4	30	7.9 X10-3 M	CG	FOTOMTR SPCTR CHNGE EOSN	MEGU KOND	59024	T	L
6. E-2 M LI BR	25	3.96 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
5. E-2 M NA BR	30	3.66 X10-3 M	BB	SURFACE TENSION LOG PLOT	VENA NAUM	64001	TA	L
3.0 E-2 M NA CL	30	9.1 X10-3 M	CG	FOTOMTR SPCTR CHNGE EOSN	MEGU KOND	59024	T	L
6. E-2 M RB BR	25	3.35 X10-3 M	CC	TURBIDITY PLT LITE SCATR	FORD OTTE	66028	T	3
E 0 0427				GRAPH DATA NOT RETRIEVED	LANG	53005		R
38 ENTRIES FOR COMPOUND								
COMPOUND NO = 291 MOL WGT - 420.6 TETRADECYL TRIPROPYLAMMONIUM BROMIDE								
	30	2.05 X10-3 M	BB	SURFACE TENSION LOG PLOT	VENA NAUM	64001	T	L
5. E-2 M NA BR	30	2.76 X10-4 M	BB	SURFACE TENSION LOG PLOT	VENA NAUM	64001	TA	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 292 MOL WGT - 448.7 HEXADECYL TRIPROPYLAMMONIUM BROMIDE								
	30	5.7 X10-4 M	BC	SURFACE TENSION LOG PLOT	VENA NAUM	64001	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 293 MOL WGT - 310.3 DODECYL DIMETHYL AMINE OXIDE HYDROBROMIDE								
1. E-3 M H BR	27	4. X10-2 D	BD	TURBIDITY PLT LITE SCATR	HERR	64006	T	L
2. E-1 M NA BR		1.2 X10-3 M					M	
1. E-3 M H BR	50	7. X10-2 D	BD	TURBIDITY PLT LITE SCATR	HERR	64006	T	L
2. E-1 M NA BR		2.2 X10-3 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 294 MOL WGT - 366.5 HEXYL/OXYETHYLENE/6 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	20	7.4 X10-2 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	L
	20	7.5 X10-2 M	BE	SURFACE TENSION LOG PLOT	MULL METC	62015	T	L
	25	1.18 X10-1 M	BC	VAPR PRESURE LOWERING	CORK GOOD	64027	L	L
	30	6.5 X10-2 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	L
	40	5.2 X10-2 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	L
	45	7.8 X10-2 M	BC	VAPR PRESURE LOWERING	CORK GOOD	64027	L	L
6 ENTRIES FOR COMPOUND								
COMPOUND NO = 295 MOL WGT - 246.2 SODIUM NONYL 1-SULFATE								
	20	6.5 X10-2 M	BB	INTERFACIAL TENSION LOGM	V VO	60025	T	L
	21	1.66 X10 0 D	BD	REFRACTIVE INDEX	HUIS	64047	T	L
		6.742X10-2 M					M	
	21	1.59 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		6.458X10-2 M					M	
	25	1.35 X10 0 D	DB	REFRACTIVE INDEX	PRIN HERM	56011	T	L
		5.483X10-2 M					M	
	25	1.45 X10 0 D	DB	TURBIDITY PLT LITE SCATR	PRIN HERM	56011	T	L
		5.889X10-2 M					M	

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

	Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.	E-1 K NA CL	20	4.3 X10-2 M	BB	INTERFACIAL TENSION LOGM	V VO	60025	T	L
3.	E-2 M NA CL	21	1.30 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			5.280X10-2 M					M	
1.	E-1 M NA CL	21	1.00 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			4.061X10-2 M					M	
1.	E-1 M NA CL	21	1.05 X10 0 D	BD	REFRACTIVE INDEX	HUIS	64047	T	L
			4.264X10-2 M					M	
3.	E-1 M NA CL	21	6.3 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
			2.55 X10-2 M					M	
7.5	E-2 M NA CL	25	1.2 X10 0 D	DC	TURBIDITY PLT LITE SCATR	PRIN HERM	56011	T	L
			4.87 X10-2 M					M	
	11 ENTRIES FOR COMPOUND								
COMPOUND NO = 296 MOL WGT = 168.2 POTASSIUM HEPTANOATE									
		25	7.5 X10-1 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
2.	E 0 I K OH	25	8.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.	E-5 N PINACYANOL CL (DYE)	25	4.5 X10-1 M	DG	FOTOMTR SPCTR CHNGE PNCN	HERZ	52015	T	L
2.5	E-5 N PINACYANOL CL (DYE)	25	6.70 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
2.5	E-5 N PINACYANOL CL (DYE)	25	6.70 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
5.	E-5 N PINACYANOL CL (DYE)	25	7.80 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
5.	E-5 N PINACYANOL CL (DYE)	25	5.5 X10-1 M	DG	FOTOMTR SPCTR CHNGE PNCN	HERZ	52015	T	L
5.	E-5 N PINACYANOL CL (DYE)	25	7.80 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.	E-4 N PINACYANOL CL (DYE)	25	7.80 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
	0188	25			SEE CMPD NMBR IN ADDITV	SHIN	54003		X
	0188	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
2.5	E-5 N PINACYANOL CL (DYE)	25	6.62 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	6.6 E-2 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	6.17 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	1.54 E-1 M K CL								
2.5	E-5 N PINACYANOL FL (DYE)	25	5.77 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	2.89 E-1 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	5.43 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	4.07 E-1 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	5.22 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	5.22 E-1 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	4.85 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	7.28 E-1 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	4.30 X10 1 M	DC	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	1.08 E 0 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	3.74 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	1.50 E 0 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	3.35 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	1.79 E 0 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	3.07 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	2.00 E 0 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	2.85 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	2.28 E 0 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	2.63 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	2.45 E 0 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	2.47 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	2.64 E 0 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	2.30 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	2.76 E 0 M K CL								
2.5	E-5 N PINACYANOL CL (DYE)	25	2.18 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	2.91 E 0 M K CL								
5.	E-5 N PINACYANOL CL (DYE)	25	7.28 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	1.46 E-1 M K CL								
5.	E-5 N PINACYANOL CL (DYE)	25	6.91 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	3.46 E-1 M K CL								
5.	E-5 N PINACYANOL CL (DYE)	25	6.33 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	6.33 E-1 M K CL								
5.	E-5 N PINACYANOL CL (DYE)	25	5.42 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	1.08 E 0 M K CL								
5.	E-5 N PINACYANOL CL (DYE)	25	4.30 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	1.72 E 0 M K CL								
5.	E-5 N PINACYANOL CL (DYE)	25	3.40 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	2.38 E 0 M K CL								
5.	E-5 N PINACYANOL CL (DYE)	25	2.80 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	2.80 E 0 M K CL								
1.07	E 1 C 0044	25	7.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
	2. E 0 I K OH								
1.57	E 1 C 0044	25	6.6 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
	2. E 0 I K OH								
2.50	E 1 C 0044	25	6.1 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
	2. E 0 I K OH								

Concentration units: A — mol %; B — vol % solvent; C — mol % surfactant mixture; D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M — molar; N — normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
3.36 E 1 C 0044 2. E 0 I K OH	25	5.6 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4.36 E 1 C 0044 2. E 0 I K OH	25	5.2 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
5.53 E 1 C 0044 2. E 0 I K OH	25	4.9 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.66 E 1 C 0044 2. E 0 I K OH	25	4.5 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
8.18 E 1 C 0044 2. E 0 I K OH	25	4.1 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.1 E 0 C 0090 2. E 0 I K OH	25	5.9 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
6.0 E 0 C 0090 2. E 0 I K OH	25	4.4 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.40 E 1 C 0090 2. E 0 I K OH	25	3.1 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
2.88 E 1 C 0090 2. E 0 I K OH	25	2.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
5.41 E 1 C 0090 2. E 0 I K OH	25	1.5 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.2 E 0 C 0091 2. E 0 I K OH	25	3.8 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
7.3 E 0 C 0091 2. E 0 I K OH	25	1.4 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.94 E 1 C 0091 2. E 0 I K OH	25	8.0 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.97 E 1 C 0091 2. E 0 I K OH	25	5.6 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
7.02 E 1 C 0091 2. E 0 I K OH	25	3.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
E 0 0092 2. E 0 I K OH	25			GRAPH DATA NOT RETRIEVED	SHIN	54005		R
1.5 E 0 C 0092 2. E 0 I K OH	25	8.0 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
5.4 E 0 C 0092 2. E 0 I K OH	25	5.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.42 E 1 C 0092 2. E 0 I K OH	25	2.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.34 E 1 C 0092 2. E 0 I K OH	25	1.6 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
8. E-1 C 0297 2. E 0 I K OH	25	5.3 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
3.1 E 0 C 0297 2. E 0 I K OH	25	3.6 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
8.1 E 0 C 0297 2. E 0 I K OH	25	2.2 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
1.75 E 1 C 0297 2. E 0 I K OH	25	1.4 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
4.05 E 1 C 0297 2. E 0 I K OH	25	9.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
0188	25			SEE CMPD NMBR IN ADDITV	SHIN	54003		X
62 ENTRIES FOR COMPOUND								
COMPOUND NO = 297 MOL WGT - 224.4 POTASSIUM UNDECANOATE								
	25	4.92 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
	25	5.0 X10-2 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	25	4.92 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
4.8 E-3 M K CL	25	4.78 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.44 E-2 M K CL	25	4.56 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.87 E-2 M K CL	25	4.37 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.73 E-2 M K CL	25	4.09 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
3.86 E-2 M K CL	25	3.86 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
5.34 E-2 M K CL	25	3.56 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
7.64 E-2 M K CL	25	3.27 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.03 E-1 M K CL	25	2.94 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.33 E-1 M K CL	25	2.66 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.69 E-1 M K CL	25	2.42 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.16 E-1 M K CL	25	2.16 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.87 E-1 M K CL	25	1.91 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
4.03 E-1 M K CL	25	1.61 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
5.06 E-1 M K CL	25	1.45 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
6.42 E-1 M K CL	25	1.28 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
8.30 E-1 M K CL	25	1.11 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.01 E 0 M K CL	25	1.01 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.18 E 0 M K CL	25	9.4 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.35 E 0 M K CL	25	9.0 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.52 E 0 M K CL	25	8.7 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.70 E 0 M K CL	25	8.5 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.01 E 0 M K CL	25	8.1 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.22 E 0 M K CL	25	7.4 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2. E 0 I K OH	25	4.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54005	G	L
0044	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
0090	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
0188	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
4.9 E 0 C 0091	25	4.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
2. E 0 I K OH								
1.93 E 1 C 0091	25	4.0 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
2. E 0 I K OH								
2.76 E 1 C 0091	25	3.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
2. E 0 I K OH								
3.38 E 1 C 0091	25	3.6 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	GL	L
2. E 0 I K OH								
4.63 E 1 C 0091	25	3.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
2. E 0 I K OH								
5.76 E 1 C 0091	25	3.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
2. E 0 I K OH								
6.99 E 1 C 0091	25	3.0 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
2. E 0 I K OH								
8.38 E 1 C 0091	25	2.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	54003	G	L
2. E 0 I K OH								
0296	25			SEE CMPD NMBR IN ADDITV	SHIN	54005		X
2. E 0 I K OH								
0090	25			SEE CMPD NMBR IN ADDITV	SHIN	54003		X
40 ENTRIES FOR COMPOUND								
COMPOUND NO = 298 MOL WGT - 250.3 SODIUM TETRADECANOATE								
	32001			VALUES FRM REF IN CMC	EKWA	40003		R
	21	6. X10-3 M	DD	EQUIV CONDCTNCE GRAPH	EKWA	27001	L	L
	21	6. X10-3 M	DE	PH OR HYDROLYSIS	EKWA	27001	L	L
	25	6.9 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	3
	25	6.9 X10-3 M	DG	SURFACE TENSION MINIMUM	CAMP LAKS	65024	T	L
	35	7. X10-3 M	DD	EQUIV CONDCTNCE GRAPH	EKWA	32001	K	L
	35	6.95 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	3
	48	7. X10-3 M	DD	EQUIV CONDCTNCE GRAPH	EKWA	32001	K	L
	50	7.5 X10-3 M	HB	SPECFC CONDCTNCE GRAPH	MARO ELDE	54006	T	L
	50	7.1 X10-3 M	DG	SURFACE TENSION MINIMUM	CAMP LAKS	65024	T	L
	58	7. X10-3 M	DD	EQUIV CONDCTNCE GRAPH	EKWA	32001	K	L
	60	1.00 X10-2 M	DC	PH OR HYDROLYSIS	STAU	39006	G	L
	65	7. X10-3 M	DD	EQUIV CONDCTNCE GRAPH	EKWA	32001	K	L
	80	9. X10-3 M	DD	EQUIV CONDCTNCE GRAPH	EKWA	32001	K	L
	UNK	2.1 X10-1 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		8.38 X10-3 M					M	
1. E-1 H NA OH	70	2.9 X10-3 M	CC	SURFACE TENSION LOG PLOT	POWN ADDI	38006	T	L
1. E-1 H NA OH	70	2.9 X10-3 M	CC	INTERFACIAL TENSION LOGM	POWN ADDI	38006	T	L
1.1 E 1 PH OF SOLUTION	40	4.4 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	50	4.4 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	60	4.4 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	90	4.4 X10-3 M	BD	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
21 ENTRIES FOR COMPOUND								
COMPOUND NO = 299 MOL WGT - 194.2 SODIUM DECANOATE								
	41003			VALUES FRM REF IN CMC	EKWA	40003		R
	20	1.0 X10-1 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T	L
	20	1.24 X10-1 M	DE	VISCOSITY	HESS PHIL	39009	T	L
	20	9.5 X10-2 M	DE	PH OR HYDROLYSIS	EKWA	41003	T	L
	20	9.7 X10-2 M	DC	EQUIV CONDCTNCE GRAPH	EKWA	41003	T	L
	25	9.40 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	3
	25	9.55 X10-2 M	DB	SURFACE TENSION LOG PLOT	CAMP LAKS	65024	T	L
	30	1.06 X10-1 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	30	1.1 X10-1 M	DD	FOTOMTR SOLUBLZTN PDMAB	KOLT JOHN	46006	T	L
	35	9.80 X10-2 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	3
	50	1.05 X10-1 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	50	1.05 X10-1 M	DB	FOTOMTR SOLUBLZTN PDMAB	KOLT JOHN	46006	T	L
	50	1.060X10-1 M	DB	SURFACE TENSION LOG PLOT	CAMP LAKS	65024	T	L
	UNK	1.0 X10-1 M	DE	ELECTROMOTIVE FORCE	CARR JOHN	47013	T	L
	UNK	1.05 X10-1 M	DB	FOTOMTR SOLUBLZTN PDMAB	CARR JOHN	47013	T	L
	UNK	2.00 X10 0 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		1.029X10-1 M					M	

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
1.1 E 1 PH OF SOLUTION	5	1.03 X10-1 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	20	1.03 X10-1 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	60	1.03 X10-1 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	90	1.03 X10-1 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
20 ENTRIES FOR COMPOUND								
COMPOUND NO = 300 MOL WGT = 278.4 SODIUM HEXADECANOATE								
		42004		VALUES FRM REF IN CMC	EKWA	40003		R
	50	2.1 X10-3 M	HC	SPECFC CONDCTNCE GRAPH	MARO ELDE	54006	T	L
	52	3.2 X10-3 M	DD	EQUIV CONDCTNCE GRAPH	EKWA	42004	K	L
	58	3.3 X10-3 M	DD	EQUIV CONDCTNCE GRAPH	EKWA	42004	K	L
	60	3.0 X10-3 M	DC	PH OR HYDROLYSIS	STAU	39006	G	L
	60	2.5 X10-3 M	DC	PH OR HYDROLYSIS	STAU	39006	K	L
	60	4. X10-4 M	DE	FOTOMTR SOLUBLZTN OROT		48024	T	L
	67	3.3 X10-3 M	DD	EQUIV CONDCTNCE GRAPH	EKWA	42004	K	L
	UNK	9. X10-2 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		3.2 X10-3 M					M	
1. E-1 H NA OH	70	3.9 X10-4 M	CC	SURFACE TENSION LOG PLOT	POWN ADDI	38006	K	L
1. E-1 H NA OH	70	6.5 X10-4 M	CC	INTERFACIAL TENSION LOGM	POWN ADDI	38006	K	L
11 ENTRIES FOR COMPOUND								
COMPOUND NO = 301 MOL WGT = 348.4 SODIUM 3-N-DODECYL BENZENE SULFONATE								
	25	1.46 X10-3 M	FA	SPECFC CONDCTNCE GRAPH	LUDL	56005	T	3
	30	1.46 X10-3 M	FA	SPECFC CONDCTNCE GRAPH	LUDL	56005	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 302 MOL WGT = 348.4 SODIUM 4-N-DODECYL BENZENE SULFONATE								
	25	1.59 X10-3 M	FA	SPECFC CONDCTNCE GRAPH	LUDL	56005	T	3
	30	1.59 X10-3 M	FA	SPECFC CONDCTNCE GRAPH	LUDL	56005	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 303 MOL WGT = 245.4 DI-ISOPROPYLAMMONIUM CAPRYLATE								
	0	4.3 X10-1 M	DC	FREEZING POINT	GONI	46019	K	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 304 MOL WGT = 352.6 CATOL 607 (N-/LAURYL-COLAMINO-FORMYL-METHYL/ -PYRIDINIUM CHLORIDE)								
	0	4.8 X10-3 W	DC	FREEZING POINT	MCBA BRAD	43006	P	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 305 MOL WGT = 320.6 POTASSIUM OLEATE/ CIS-9-OCTADECENOATE/								
	25	8. X10-4 M	XE	REFRACTIVE INDEX	KLEV	63010	T	L
	25	9.5 X10-4 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L
	25.8	1.0 X10-3 M	DG	FOTOMTR SPCTR CHNGE PNCN	CORR KLEV	46010	T	L
	30	6. X10-4 M	DE	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
	30	48016		VALUES FRM REF IN CMC	KOLT STRI	49005		R
	50	1.2 X10-3 M	XE	REFRACTIVE INDEX	KLEV	53010	T	L
	50	1.3 X10-3 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L
	50	1.1 X10-3 M	DD	FOTOMTR SOLUBLZTN PDMAB	KOLT STRI	48016	T	L
8 ENTRIES FOR COMPOUND								
COMPOUND NO = 306 MOL WGT = 496.9 DECYL TRIMETHYLAMMONIUM SULFATE								
	UNK	5.03 X10-2 M	BC	METHOD NOT CITED	WASI HUBB	64043	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 307 MOL WGT = 553.0 DODECYL TRIMETHYLAMMONIUM SULFATE								
	25	1.64 X10-2 N	BA	EQUIV CONDCTNCE GRAPH	VOEK TART	55006	T	L
	UNK	9.3 X10-3 M	BC	METHOD NOT CITED	WASI HUBB	64043	T	L
E 0 NA2 SO4	UNK			QUESTIONABLE CRITERION	WASI HUBB	64043		R
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 308 MOL WGT = 609.1 TETRADECYL TRIMETHYLAMMONIUM SULFATE								
	UNK	1.5 X10-3 M	BD	METHOD NOT CITED	WASI HUBB	64043	T	L
6.7 E-3 M LA2 (SO4)3	UNK	8.7 X10-4 M	BC	METHOD NOT CITED	WASI HUBB	64043	T	L
2. E-2 M MG SO4	UNK	8.9 X10-4 M	BC	METHOD NOT CITED	WASI HUBB	64043	T	L
E 0 NA2 SO4	UNK			QUESTIONABLE CRITERION	WASI HUBB	64043		R
4 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 309 MOL WGT – 665.2 HEXADECYL TRIMETHYLAMMONIUM SULFATE								
E 0 NA2 S04	UNK			QUESTIONABLE CRITERION	WASI HUBB	64043		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 310 MOL WGT – 627.0 DODECYL/OXYETHYLENE/10 ALCOHOL								
NATURAL DISTRIBUTION OF HEAD GROUPS								
	25	1.25 X10-2 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
	25	7. X10-3 D	HD	FOTOMTR SOLUBLZTN OROT	GINN KINN	61015	T	L
	75	4. X10-3 D	HE	METHOD NOT CITED	GINN HARR	61014	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 311 MOL WGT – 274.3 SODIUM UNDECYL 1-SULFATE								
	21	4.4 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		1.60 X10-2 M					M	
	21	3.9 X10-1 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
		1.42 X10-2 M					M	
1. E-2 M NA CL	21	3.3 X10-1 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
		1.20 X10-2 M					M	
3. E-2 M NA CL	21	2.55 X10-1 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
		9.296X10-3 M					M	
3. E-2 M NA CL	21	2.65 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		9.660X10-3 M					M	
1. E-1 M NA CL	21	1.55 X10-1 D	BB	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
		5.650X10-3 M					M	
1. E-1 M NA CL	21	1.49 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		5.432X10-3 M					M	
3. E-1 M NA CL	21	9.5 X10-2 D	BC	SURFACE TENSION LOG PLOT	HUIS	64047	T	L
		3.46 X10-3 M					M	
3. E-1 M NA CL	21	8.5 X10-2 D	BC	TURBIDITY PLT LITE SCATR	HUIS	64047	T	3
		3.09 X10-3 M					M	
9 ENTRIES FOR COMPOUND								
COMPOUND NO = 312 MOL WGT – 420.7 TRIDECYL/OXYETHYLENE/5 ALCOHOL								
BRANCHED CHAIN, REDUCED OE DISTRIBUTION								
	25.0	1.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	6.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 313 MOL WGT – 619.0 TRIDECYL/OXYETHYLENE/9.5 ALCOHOL								
BRANCHED CHAIN, REDUCED OE DISTRIBUTION								
	25.0	1.20 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 314 MOL WGT – 817.2 TRIDECYL/OXYETHYLENE/14 ALCOHOL								
BRANCHED CHAIN, REDUCED OE DISTRIBUTION								
	25.0	1.35 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 315 MOL WGT – 1,081.6 TRIDECYL/OXYETHYLENE/20 ALCOHOL								
BRANCHED CHAIN, REDUCED OE DISTRIBUTION								
	25.0	1.50 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 316 MOL WGT – 1,522.2 TRIDECYL/OXYETHYLENE/30 ALCOHOL								
BRANCHED CHAIN, REDUCED OE DISTRIBUTION								
	25.0	2.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	1.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
2 ENTRIES FOR COMPOUND								

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 317 MOL WGT – 647.0 T-OCTYL BENZENE/OXYETHYLENE/10 ALCOHOL								
REDUCED POLYDISPERSITY OF HEAD GROUPS								
	25.0	1.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	6.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 318 MOL WGT – 1,087.6 T-OCTYL BENZENE/OXYETHYLENE/20 ALCOHOL								
REDUCED POLYDISPERSITY OF HEAD GROUPS								
	25.0	1.30 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	7.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 319 MOL WGT – 1,528.2 T-OCTYL BENZENE/OXYETHYLENE/30 ALCOHOL								
REDUCED POLYDISPERSITY OF HEAD GROUPS								
	25.0	1.60 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 320 MOL WGT – 661.0 NONYL BENZENE/OXYETHYLENE/10 ALCOHOL								
BRANCHED CHAIN, REDUCED OE DISTRIBUTION								
		62019		VALUES FRM REF IN CMC	SCHI GILB	65011		R
		62019		VALUES FRM REF IN CMC	SCHI ATLA	62020		R
	25.0	7.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	4.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
1.5 E O M DIOXANE	25.0	1.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
3.0 E O M DIOXANE	25.0	1.80 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
3. E O M UREA	25.0	1.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
6. E O M UREA	25.0	2.40 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
3. E O M GUANIDINIUM CL	25.0	1.40 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
4.6 E O PH OF SOLUTION								
5. E O M GUANIDINIUM CL	25.0	2.50 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
4.6 E O PH OF SOLUTION								
E O H CL	25.0	7.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
4.6 E O PH OF SOLUTION								
11 ENTRIES FOR COMPOUND								
COMPOUND NO = 321 MOL WGT – 881.3 NONYL BENZENE/OXYETHYLENE/15 ALCOHOL								
BRANCHED CHAIN, REDUCED OE DISTRIBUTION								
		62019		VALUES FRM REF IN CMC	SCHI ATLA	62020		R
	25.0	1.10 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	4.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
0.6 E-1 N DA CL2	25.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 N CA CL2	25.0	5.7 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 N CA NO3	25.0	7.6 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M H CL	25.0	1.50 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M K CL	25.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M K NO3	25.0	5.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M LI CL	25.0	6.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M LI NO3	25.0	8.7 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 N MG CL2	25.0	5.3 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 N MG (NO3)2	25.0	7.6 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M NA BR	25.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M NA BRO3	25.0	5.2 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 N NA CITRATE	25.0	2.5 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
4.3 E-1 M NA CL	25.0	6.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	L	L
8.6 E-1 M NA CL	25.0	5.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
1.29 E O M NA CL	25.0	4.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	L	L
8.6 E-1 M NA F	25.0	3.2 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M NA I	25.0	8.3 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M NA NO3	25.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M NA OH	25.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 N NA2 SO4	25.0	2.3 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M NA CNS	25.0	8.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 N SR CL2	25.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M (CH3)4 N CL	25.0	4.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
5. E-1 M UREA	25.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI ATLA	62020	T	L
8.6 E-1 N NA2 SO4	25.0	4.2 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
4.3 E-1 M NA CNS								
29 ENTRIES FOR COMPOUND								

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO – 322 MOL WGT – 1,101.6 NONYL BENZENE/OXYETHYLENE/20 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION								
		62019		VALUES FRM REF IN CMC	SCHI GILB	65011		R
		62019		VALUES FRM REF IN CMC	SCHI ATLA	62020		R
	25.0	1.40 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	6.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
1.5 E 0 M DIOXANE	25.0	2.40 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
3.0 E 0 M DIOXANE	25.0	3.90 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
3. E 0 M UREA	25.0	1.80 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
6. E 0 M UREA	25.0	4.75 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
3. E 0 M GUANIDINIUM CL	25.0	1.80 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
4.6 E 0 PH OF SOLUTION								
5. E 0 M GUANIDINIUM CL	25.0	5.60 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
4.6 E 0 PH OF SOLUTION								
E 0 H CL	25.0	1.40 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
4.6 E 0 PH OF SOLUTION								
11 ENTRIES FOR COMPOUND								
COMPOUND NO = 323 MOL WGT – 1,542.2 NONYL BENZENE/OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN. REDUCED OE DISTRIBUTION								
		62019		VALUES FRM REF IN CMC	SCHI GILB	65011		R
		62019		VALUES FRM REF IN CMC	SCHI ATLA	62020		R
	25.0	1.85 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	8.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
1.5 E 0 M DIOXANE	25.0	2.60 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
3.0 E 0 M DIOXANE	25.0	5.70 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
3. E 0 M UREA	25.0	3.50 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
6. E 0 M UREA	25.0	7.40 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
3. E 0 M GUANIDINIUM CL	25.0	4.25 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
4.6 E 0 PH OF SOLUTION								
5. E 0 M GUANIDINIUM CL	25.0	9.60 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
4.6 E 0 PH OF SOLUTION								
E 0 H CL	25.0	1.85 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI GILB	65011	T	L
4.6 E 0 PH OF SOLUTION								
11 ENTRIES FOR COMPOUND								
COMPOUND NO = 324 MOL WGT – 2,423.4 NONYL BENZENE/OXYETHYLENE/50 ALCOHOL BRANCHED CHAIN, REDUCED OE DISTRIBUTION								
		62019		VALUES FRM REF IN CMC	SCHI ATLA	62020		R
	25.0	2.80 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	55.0	1.50 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M LI CL	25.0	2.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
4.3 E-1 M NA CL	25.0	2.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M NA CL	25.0	1.50 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
1.29 E 0 M NA CL	25.0	1.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 N NA2 SO4	25.0	7. X10-6 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M NA CNS	25.0	2.25 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M (CH3)4 N CL	25.0	1.00 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 325 MOL WGT – 362.6 DODECYL/OXYETHYLENE/4 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS								
	05.0	7.8 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	25	4.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
	25.0	4.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	25.0	4.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	45.0	2.2 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	55.0	1.7 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI	62019	T	L
2.5 E 1 I 0001	05.0	1.1 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 1 I 0001	05.0	1.8 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 1 I 0001	05.0	3.5 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 1 I 0001	05.0	5.5 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
2.5 E 1 I 0001	25.0	8.5 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 1 I 0001	25.0	1.4 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 1 I 0001	25.0	2.8 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 1 I 0001	25.0	5.0 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
2.5 E 1 I 0001	45.0	5.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 1 I 0001	45.0	9.0 X10-5 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
7.5 E 1 I 0001	45.0	1.4 X10-4 M	ED	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 1 I 0001	45.0	3.0 X10-4 M	EC	SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
0097	25			SEE CMPD NMBR IN ADDITV	SCHI	66025		X
19 ENTRIES FOR COMPOUND								

COMPOUND NO = 326 MOL WGT - 803.2 DODECYL/OXYETHYLENE/14 ALCOHOL
REDUCED POLYDISPERSITY OF HEAD GROUPS

	62019			VALUES FRM REF IN CMC	SCHI ATLA	62020		R
25.0	5.5 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI	62019	T	L
55.0	2.5 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI	62019	T	L
3 ENTRIES FOR COMPOUND								

COMPOUND NO = 327 MOL WGT - 1,199.8 DODECYL/OXYETHYLENE/23 ALCOHOL
REDUCED POLYDISPERSITY OF HEAD GROUPS

		62019			VALUES FRM REF IN CMC	SCHI ATLA	62020		R
	05.0	1.0 X10-4 M	ED		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	25	6.0 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI	66025	L	L
	25.0	6.0 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI	62019	T	L
	25.0	6.0 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	45.0	3.6 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
	55.0	3.0 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI	62019	T	L
9.0 E 0 C 0001	05.0	8.0 X10-4 M	EC		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
2.5 E 1 I 0001	05.0	1.0 X10-4 M	ED		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 1 I 0001	05.0	1.2 X10-4 M	ED		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 1 I 0001	05.0	3.2 X10-4 M	EC		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 0 C 0001	25.0	1.6 X10-4 M	ED		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 0 C 0001	25.0	4.8 X10-4 M	EC		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
2.5 E 1 I 0001	25.0	6.0 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 1 I 0001	25.0	7.6 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
7.5 E 0 C 0001	45.0	7.1 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
9.0 E 0 C 0001	45.0	2.2 X10-4 M	ED		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
2.5 E 1 I 0001	45.0	3.6 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
5.0 E 1 I 0001	45.0	5.0 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI MANN	66001	L	L
0097	25				SEE CMPD NMBR IN ADDITV	SCHI	66025		X
20 ENTRIES FOR COMPOUND									

COMPOUND NO = 328 MOL WGT - 887.4 OCTADECYL/OXYETHYLENE/14 ALCOHOL
REDUCED POLYDISPERSITY OF HEAD GROUPS

	62019			VALUES FRM REF IN CMC	SCHI ATLA	62020		R
25.0	6.0 X10-5 M	EC		SURFACE TENSION LOG PLOT	SCHI	62019	T	L
55.0	2.0 X10-5 M	ED		SURFACE TENSION LOG PLOT	SCHI	62019	T	L
3 ENTRIES FOR COMPOUND								

COMPOUND NO = 329 MOL WGT - 4,676.6 OCTADECYL/OXYETHYLENE/100 ALCOHOL
REDUCED POLYDISPERSITY OF HEAD GROUPS

		62019			VALUES FRM REF IN CMC	SCHI ATLA	62020		R
	25.0	2.0 X10-5 M	ED		SURFACE TENSION LOG PLOT	SCHI	62019	T	L
8.6 E-1 M NA CL	25.0	2.0 X10-5 M	ED		SURFACE TENSION LOG PLOT	SCHI ATLA	62020	T	L
1.29 E 0 M NA CL	25.0	2.0 X10-5 M	ED		SURFACE TENSION LOG PLOT	SCHI ATLA	62020	T	L
4 ENTRIES FOR COMPOUND									

COMPOUND NO = 330 MOL WGT - 550.9 HEXADECYL/OXYETHYLENE/7 ALCOHOL
HOMOGENEOUS HEAD GROUP

25	1.74 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	3
1 ENTRIES FOR COMPOUND							

COMPOUND NO = 331 MOL WGT - 639.0 HEXADECYL/OXYETHYLENE/9 ALCOHOL
HOMOGENEOUS HEAD GROUP

18	8.0 X10-6 M	CG	FLOCCULATION RATE	MATH OTTE	66037	T	L
20	3.6 X10-5 M	BE	SURFACE TENSION LOG PLOT	CARL CHAL	64009	T	L
20	3.5 X10-5 M	BG	FOTOMTR SPCTR CHNG I2	CARL CHAL	64009	T	L
25	2.09 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	3
4 ENTRIES FOR COMPOUND							

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 332 MOL WGT - 771.2 HEXADECYL/OXYETHYLENE/12 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	25	2.34 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 333 MOL WGT - 903.4 HEXADECYL/OXYETHYLENE/15 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	25	3.09 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 334 MOL WGT - 1,167.8 HEXADECYL/OXYETHYLENE/21 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	25	3.89 X10-6 M	BC	SURFACE TENSION LOG PLOT	ELWO MACF	62027	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 335 MOL WGT - 580.9 OCTYL BENZENE/OXYETHYLENE/8.5 ALCOHOL								
BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	2.05 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 336 MOL WGT - 639.0 NONYL BENZENE/OXYETHYLENE/9.5 ALCOHOL								
BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	9.3 X10-3 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
	25	8.5 X10-5 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 337 MOL WGT - 683.0 NONYL BENZENE/OXYETHYLENE/10.5 ALCOHOL								
BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	8.3 X10-5 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
8.6 E-1 M NA CL	25	4.6 X10-5 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
5.0 E-1 C 0168	25	9.5 X10-5 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
5.0 E-1 C 0169	25	1.30 X10-4 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 338 MOL WGT - 4,626.4 NONYL BENZENE/OXYETHYLENE/100 ALCOHOL								
BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	25	1.00 X10-3 M	HD	SURFACE TENSION LOG PLOT	HSIA DUNN	56014	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 339 MOL WGT - 354.7 MAGNESIUM HEXANE SULFONATE								
	25	6.3 X10-1 N	CG	VISUAL SPCTR CHNGE PNCN	LELO TART	51003	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 340 MOL WGT - 410.8 MAGNESIUM OCTANE SULFONATE								
	23	1.10 X10-1 N	CB	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	3
	25	1.1 X10-1 N	CD	SPECFC CONDCTNCE GRAPH	LELO TART	51003	L	L
	60	1.1 X10-1 N	CD	SPECFC CONDCTNCE GRAPH	LELO TART	51003	L	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 341 MOL WGT - 466.9 MAGNESIUM DECANE SULFONATE								
	60	2.0 X10-2 N	CC	SPECFC CONDCTNCE GRAPH	LELO TART	51003	L	3
	60	2.0 X10-2 N	CC	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	L
	80	2.5 X10-2 N	CC	SPECFC CONDCTNCE GRAPH	LELO TART	51003	L	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 342 MOL WGT - 523.1 MAGNESIUM DODECANE SULFONATE								
	60	3.6 X10-3 N	CB	SPECFC CONDCTNCE GRAPH	LELO TART	51003	L	3
	60	3.3 X10-3 N	CC	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	L
	80	4.9 X10-3 N	CB	SPECFC CONDCTNCE GRAPH	LELO TART	51003	L	L
3 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 343 MOL WGT = 174.2 SODIUM PENTANE SULFONATE								
	25	9.9 X10-1 M	CD	METHOD NOT CITED	LELO TART	51003	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 344 MOL WGT = 188.2 SODIUM HEXANE SULFONATE								
	25	4.6 X10-1 M	CG	VISUAL SPCTR CHNGE PNCN	LELO TART	51003	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 345 MOL WGT = 418.3 DIDODECYL DIMETHYLAMMONIUM CHLORIDE								
3. E-3 N NA CL		1. X10-4 N	CE	UNSPECIFIED CONDUCTANCE	TART LELO	55021	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 346 MOL WGT = 437.8 DECYL TRIMETHYLAMMONIUM DECYL SULFATE								
		63014		VALUES FRM REF IN CMC	CORK GOOD	65005		R
	25	4.6 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	63014	L	3
	25	4.5 X10-4 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	L
1.00 E 2 I NA BR	25	4.6 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	63014	L	3
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 347 MOL WGT = 381.6 OCTYL TRIMETHYLAMMOMIUM OCTYL SULFATE								
	25	7.5 X10-3 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	L
1.00 E 2 I NA BR	25	7.5 X10-3 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	65005	T	3
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 348 MOL WGT = 443.2 NN-DIMETHYL 1-1-DIHYDROPENTADECAFLUORO OCTYL AMINE N-OXIDE /C7F15CH2N/CH3/20/								
	25	4.7 X10-4 M	BB	SURFACE TENSION LOG PLOT	CORK GOOD	65005	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 349 MOL WGT = 356.5 SODIUM OCTADECANE 1-SULFONATE								
	57.0	7.5 X10-4 W	DB	KRAFFT POINT SOLUBILITY	TART WRIG	39002	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 350 MOL WGT = 196.4 POTASSIUM NONANOATE								
	25	2.1 X10-1 M	DG	FOTOMTR SPCTR CHNGE PNCN	HERZ	52015	T	L
	25	2.01 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
	25	2.00 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
	25	2.0 X10-1 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
3.7 E-2 M K CL	25	1.87 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
8.7 E-2 M K CL	25	1.75 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.59 E-1 M K CL	25	1.59 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.78 E-1 M K CL	25	1.39 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
4.61 E-1 M K CL	25	1.15 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
6.77 E-1 M K CL	25	9.7 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
8.55 E-1 M K CL	25	8.6 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.29 E 0 M K CL	25	6.4 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.63 E 0 M K CL	25	5.4 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.92 E 0 M K CL	25	4.8 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	TA	L
2.11 E 0 M K CL	25	4.2 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.39 E 0 M K CL	25	4.0 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.64 E 0 M K CL	25	3.8 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
17 ENTRIES FOR COMPOUND								
*COMPOUND NO = 351 MOL WGT = 252.5 POTASSIUM TRIDECANOATE								
	25	1.26 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52015	T	L
	25	1.2 X10-2 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	25	1.26 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.34 E-3 M K CL	25	1.21 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.91 E-3 M K CL	25	1.16 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
4.78 E-3 M K CL	25	1.12 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
7.06 E-3 M K CL	25	1.06 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
9.29 E-3 M K CL	25	9.29 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.34 E-2 M K CL	25	8.92 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.56 E-2 M K CL	25	8.42 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.87 E-2 M K CL	25	8.00 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.51 E-2 M K CL	25	7.17 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.76 E-2 M K CL	25	6.90 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
3.27 E-2 M K CL	25	6.54 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
4.11 E-2 M K CL	25	5.87 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
5.29 E-2 M K CL	25	5.29 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
6.16 E-2 M K CL	25	4.92 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
9.13 E-2 M K CL	25	4.06 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.16 E-1 M K CL	25	3.57 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.44 E-1 M K CL	25	3.19 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.69 E-1 M K CL	25	2.94 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
1.94 E-1 M K CL	25	2.77 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.16 E-1 M K CL	25	2.62 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.41 E-1 M K CL	25	2.53 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
2.68 E-1 M K CL	25	2.38 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
3.12 E-1 M K CL	25	2.27 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	HERZ	52017	T	L
26 ENTRIES FOR COMPOUND								
COMPOUND NO = 352 MOL WGT = 388.4 SODIUM DI-1-METHYLISOAMYL SULFOSUCCINATE								
	25	3. X10-2 N	HE	UNSPECIFIED CONDUCTANCE	HAFF PICC	42003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 353 MOL WGT = 393.7 OCTYL TRIMETHYLAMMONIUM DECANE SULFONATE								
	RM	5.75 X10-3 M	BB	DEBYE PLT LIGHT SCATTER	ANAC	53002	T	3
1.78 E-1 M K CL	RM	5.67 X10-3 M	BB	DEBYE PLT LIGHT SCATTER	ANAC	53002	T	3
2.65 E-1 M K CL	RM	5.67 X10-3 M	BB	DEBYE PLT LIGHT SCATTER	ANAC	53002	T	3
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 354 MOL WGT = 255.9 HEXYL BENZYL DIMETHYLAMMONIUM CHLORIDE								
	UNK	4.34 X10-2 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 355 MOL WGT = 363.1 AMMONIUM DODECAFLUOROHEPTANOATE H/CF2/6C00NH4								
	UNK	2.5 X10-1 M	CG	METHOD NOT CITED	ARRI PATT	53003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 356 MOL WGT = 312.0 DECYL BENZYL DIMETHYLAMMONIUM CHLORIDE								
	UNK	6.1 X10-3 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 357 MOL WGT = 368.1 TETRADECYL BENZYL DIMETHYLAMMONIUM CHLORIDE								
	UNK	3.7 X10-4 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 358 MOL WGT = 424.2 OCTADECYL BENZYL DIMETHYLAMMONIUM CHLORIDE								
	23	8.5 X10-6 M	HG	STREAMING CURRENT	CARD	66011	T	L
	UNK	7.1 X10-6 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 359 MOL WGT = 328.9 OCTYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE								
	UNK	5.7 X10-2 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 360 MOL WGT = 357.0 DECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE								
	UNK	2.3 X10-2 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 361 MOL WGT = 385.0 DODECYL 4-NITROBENZYL DIMETHYL AMMONIUM CHLORIDE								
	UNK	3.6 X10-3 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 362 MOL WGT = 413.1 TETRADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE								
	UNK	5.1 X10-4 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 363 MOL WGT = 441.2 HEXADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE								
	UNK	1.3 X10-4 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 364 MOL WGT –	469.2	OCTADECYL 4-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE						
	UNK	2.9 X10-5 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 365 MOL WGT –	374.5	DODECYL 2-CHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE						
	UNK	2.8 X10-4 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 366 MOL WGT –	408.9	DODECYL 2-4-DICHLOROBENZYL DIMETHYLAMMONIUMCHLORIDE						
	UNK	3.7 X10-4 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 367 MOL WGT –	374.5	DODECYL 4-CHLOROBENZYL DIMETHYLAMMONIUM CHLORIDE						
	UNK	4.2 X10-4 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 368 MOL WGT –	401.0	DODECYL 2-HYDROXY-5-NITROBENZYL DIMETHYLAMMONIUM CHLORIDE						
	UNK	6.9 X10-4 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 369 MOL WGT –	408.9	DODECYL 3-4-DICHLOROBENZYL DIMETHYLAMMONIUMCHLORIDE						
	UNK	1.1 X10-3 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 370 MOL WGT –	384.1	DODECYL 3-4-METHYLENEDIOXYBENZYL DIMETHYLAMMONIUM CHLORIDE						
	UNK	3.8 X10-3 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 371 MOL WGT –	400.1	DODECYL 3-4-DIMETHOXYBENZYL DIMETHYLAMMONIUMCHLORIDE						
	UNK	3.9 X10-3 M	PG	VISUAL SPCTR CHNGE INPX	ROSS KWAR	53007	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 372 MOL WGT –	463.1	AMMONIUM HEXADECAFLUORONONANOATE H/CF2/8 COO NH4						
	UNK	3.8 X10-2 M	CG	METHOD NOT CITED	ARRI PATT	53003	T	L
0092				SEE CMPD NMBR IN ADDITV	ARRI PATT	53003		X
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 373 MOL WGT –	563.2	AMMONIUM EICOSAFLUOROUNDECANOATE H/CF2/10 COO NH4						
	UNK	9. X10-3 M	CG	METHOD NOT CITED	ARRI PATT	53003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 374 MOL WGT –	346.1	DODECAFLUOROHEPTANOIC ACID H/CF2/6COOH						
	25	1.5 X10-1 M	HG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	UNK	1.5 X10-1 M	CG	METHOD NOT CITED	ARRI PATT	53003	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 375 MOL WGT –	446.1	HEXADECAFLUORONONANOIC ACID H/CF2/8COOH						
	25	3. X10-2 M	HG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	UNK	3. X10-2 M	CG	METHOD NOT CITED	ARRI PATT	53003	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 376 MOL WGT –	375.4	DODECYL PYRIDINIUM IODIDE						
	60015			VALUES FRM REF IN CMC	FORD OTTE	66028		R
	18.0	4.1 X10-3 M	BC	KRAFFT POINT SOLUBILITY	ADDI FURM	56019	T	L
	18.5	4.3 X10-3 M	BC	INTERFACIAL TNSN UNSPEC	ADDI FURM	56019	T	L
	20.3	5.10 X10-3 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	L
	24.9	5.26 X10-3 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	3
	25	5.60 X10-3 M	DC	TURBIDITY PLT LITE SCATR	PARR	60015	T	3
	25	5.70 X10-3 M	CB	SURFACE TENSION UNSPEC	FORD OTTE	66028	T	3
	25	5.26 X10-3 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
	30	5.0 X10-3 M	CG	FOTOMTR SPCTR CHNGE EOSN	MEGU KOND	59024	T	L
	30	4.5 X10-3 M	CA	SPECFC CONDCTNCE GRAPH	MEGU KOND	59024	T	L
	30.1	5.60 X10-3 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	L
	34.9	5.85 X10-3 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	L
	40.0	6.30 X10-3 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	L

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	44.9	6.70 X10-3 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	L
	45	6.70 X10-3 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
	RM	5.0 X10-3 M	CC	MICELLAR SPECTRAL CHANGE	HARK DRIZ	51010	T	L
	RM	5.3 X10-3 M	CG	VISUAL SPCTR CHNGE SKYB	HARK DRIZ	51010	T	L
	RM	5.6 X10-3 M	CC	FOTOMTR SOLUBLZTN OROT	HARK DRIZ	51010	T	L
2.5 E-3 M K I	25	4.53 X10-3 M	DC	TURBIDITY PLT LITE SCATR	PARR	60015	T	L
5.0 E-3 M K I	25	3.87 X10-3 M	DC	TURBIDITY PLT LITE SCATR	PARR	60015	T	L
1.00 E-2 M K I	25	2.94 X10-3 M	DC	TURBIDITY PLT LITE SCATR	PARR	60015	T	L
2. E-2 M K I	25	1.80 X10-3 M	CB	SURFACE TENSION UNSPEC	FORD OTTE	66028	T	L
2.02 E-2 M K I	30	1.94 X10-3 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	L
5.01 E-2 M K I	30	1.12 X10-3 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	L
1.002E-1 M K I	30	6.5 X10-4 M	CB	MICELLAR SPECTRAL CHANGE	MUKE RAY	66006	T	L
1. E-4 M NA2 S203 TH1OSULF	25	5.15 X10-3 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
1. E-3 M NA2 S203 TH1OSULF	25	4.75 X10-3 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
1. E-3 M NA2 S203 TH1OSULF	45	5.63 X10-3 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
3.4 E 0 M UREA	25	9.34 X10-3 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
5.9 E 0 M UREA	25	1.36 X10-2 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
3.4 E 0 M UREA	45	1.18 X10-2 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
5.9 E 0 M UREA	45	1.71 X10-2 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
8.0 E 0 M UREA	45	2.13 X10-2 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
1. E-4 M NA2 S203 TH1OSULF 3.4 E 0 M UREA	25	9.30 X10-3 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
1. E-4 M NA2 S203 TH1OSULF 5.9 E 0 M UREA	25	1.39 X10-2 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
1. E-3 M NA2 S203 TH1OSULF 9.6 E-1 M UREA	25	5.75 X10-3 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
1. E-3 M NA2 S203 TH1OSULF 3.4 E 0 M UREA	25	9.10 X10-3 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
1. E-3 M NA2 S203 TH1OSULF 5.9 E 0 M UREA	25	1.33 X10-2 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
1. E-3 M NA2 S203 TH1OSULF 9.6 E-1 M UREA	45	7.10 X10-3 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
1. E-3 M NA2 S203 TH1OSULF 3.4 E 0 M UREA	45	1.10 X10-2 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
1. E-3 M NA2 S203 TH1OSULF 5.9 E 0 M UREA	45	1.57 X10-2 M	DB	MICELLAR SPECTRAL CHANGE	MUKE RAY	63032	T	L
41 ENTRIES FOR COMPOUND								
COMPOUND NO = 377 MOL WGT - 406.7 DODECYL/OXYETHYLENE/ 5 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	4.0 X10-5 M	BD	SURFACE TENSION LOG PLOT	CARL CHAL	64009	T	L
	20	3.5 X10-5 M	BG	FOTOMTR SPCTR CHNG I2	CARL CHAL	64009	T	L
	20	5.00 X10-5 M	BD	REFRACTIVE INDEX	DONB JAN	63021	T	L
	23	5.7 X10-5 M	PB	SURFACE TENSION LOG PLOT	LANG	60012	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 378 MOL WGT - 378.6 DECYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	8.6 X10-4 M	BC	SURFACE TENSION LOG PLOT	CARL CHAL	64009	T	L
	20	1.0 X10-3 M	BG	FOTOMTR SPCTR CHNG I2	CARL CHAL	64009	T	L
	20	7.8 X10-4 M	BC	REFRACTIVE INDEX	DONB JAN	63021	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 379 MOL WGT - 334.6 DECYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP								
	16	4.2 X10-4 M	BG	FOTOMTR SPCTR CHNG I2	CARL CHAL	64009	T	L
	20	6.4 X10-4 M	BC	SURFACE TENSION LOG PLOT	CARL CHAL	64009	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 380 MOL WGT - 278.4 HEXYL/OXYETHYLENE/4 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	9. X10-2 M	BD	SURFACE TENSION LOG PLOT	CARL CHAL	64009	T	L
	20	9. X10-2 M	BD	FOTOMTR SPCTR CHNG I2	CARL CHAL	64009	T	L
	20	9.0 X10-2 M	BB	REFRACTIVE INDEX	DONB JAN	63021	T	3
	20	7.5 X10-2 M	BE	SURFACE TENSION LOG PLOT	MULL METC	62015	T	L
4 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; F—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 381 MOL WGT – 322.5 HEXYL/OXYETHYLENE/5 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	9.25 X10-2 M	BB	REFRACTIVE INDEX	DONB JAN	63021	T	3
	20	7.5 X10-2 M	BE	SURFACE TENSION LOG PLOT	MULL METC	62015	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 382 MOL WGT – 353.6 ETHYL TRIMETHYLAMMONIUM DODECYL SULFATE								
	25	4.30 X10-3 M	DA	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 383 MOL WGT – 381.6 BUTYL TRIMETHYLAMMONIUM DODECYL SULFATE								
	25	2.38 X10-3 M	DA	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 384 MOL WGT – 409.7 HEXYL TRIMETHYLAMMONIUM DODECYL SULFATE								
	25	1.25 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 385 MOL WGT – 437.8 OCTYL TRIMETHYLAMMONIUM DODECYL SULFATE								
	25	4.3 X10-4 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
	25	4.0 X10-4 M	DB	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 386 MOL WGT – 283.4 AMMONIUM DODECYL SULFATE								
	25	6.16 X10-3 M	DA	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
	30	7.2 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	MEGU KOND	59026	T	L
	30	6.6 X10-3 M	CG	FOTOMTR SPCTR CHNGE RHD6	MEGU KOND	59026	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 387 MOL WGT – 297.5 METHYLAMMONIUM DODECYL SULFATE								
	25	5.70 X10-3 M	DA	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 388 MOL WGT – 311.5 ETHYLAMMONIUM DODECYL SULFATE								
	25	5.00 X10-3 M	DA	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 389 MOL WGT – 339.5 BUTYLAMMONIUM DODECYL SULFATE								
	25	2.92 X10-3 M	DA	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 390 MOL WGT – 367.6 HEXYLAMMONIUM DODECYL SULFATE								
	25	1.12 X10-3 M	DB	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 391 MOL WGT – 395.7 OCTYLAMMONIUM DODECYL SULFATE								
	25	2.8 X10-4 M	DC	SPECFC CONDCTNCE GRAPH	PACK DONB	63030	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 392 MOL WGT – 165.7 OCTYLAMMONIUM CHLORIDE								
	25	1.75 X10-1 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 393 MOL WGT 338.5 BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	7.96 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	30	7.60 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	40	7.10 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 394 MOL WGT – 338.5 I-METHYL PROPYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	9.1 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	30	8.8 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	40	8.5 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 395 MOL WGT - 366.6 2-ETHYL BUTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	1.00 X10-1 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	30	9.3 X10-2 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	40	8.7 X10-2 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 396 MOL WGT - 394.6 2-PROPYL PENTYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	2.30 X10-2 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	30	2.0 X10-2 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 397 MOL WGT — 422.7 2-BUTYL HEXYL/OXYETHYLENE/6 ALCOHOL HOMOGENEOUS HEAD GROUP								
	15	3.36 X10-3 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	L
	20	3.10 X10-3 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	25	2.84 X10-3 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 398 MOL WGT - 554.9 2-BUTYL HEXYL/OXYETHYLENE/9 ALCOHOL HOMOGENEOUS HEAD GROUP								
	20	3.20 X10-3 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	30	2.79 X10-3 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	3
	40	2.43 X10-3 M	BC	SURFACE TENSION LOG PLOT	ELWO FLOR	64049	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 399 MOL WGT — 278.0 DODECYL DIMETHYL ETHYLAMMONIUM CHLORIDE								
	25	1.9 X10-2 M	BC	SURFACE TENSION LOG PLOT	WEIN ZOGR	65026	T	L
	UNK	2.13 X10-2 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
1. E-1 K CL	25	7.0 X10-3 M	BC	SURFACE TENSION LOG PLOT	WEIN ZOGR	65026	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 400 MOL WGT — 292.0 DODECYL METHYL DIETHYLAMMONIUM CHLORIDE								
	UNK	1.99 X10-2 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 401 MOL WGT — 306.0 DODECYL TRIETHYLAMMONIUM CHLORIDE								
	UNK	1.93 X10-2 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 402 MOL WGT — 278.0 TRIDECYL TRIMETHYLAMMONIUM CHLORIDE								
	UNK	1.12 X10-2 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 403 MOL WGT — 326.0 DODECYL DIMETHYLPHENYLAMMONIUM CHLORIDE								
	UNK	7.65 X10-3 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 404 MOL WGT — 354.1 DODECYL DIMETHYL 2-PHENYLETHYLAMMONIUM CHLORIDE C6H5CH2CH2/N/CH3/2/C12H25								
	UNK	4.1 X10-3 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 405 MOL WGT — 354.1 DODECYL METHYLETHYLBENZYLAMMONIUM CHLORIDE								
	UNK	7.7 X10-3 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
1 ENTIRES FOR COMPOUND								
COMPOUND NO = 406 MOL WGT — 408.0 DODECYL DIMETHYL META-TRIFLUOROMETHYLBENZYL AMMONIUM CHLORIDE CF3C6H4CH2/N/CH3/2/C12H25								
	UNK	3.2 X10-3 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal: Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 407 MOL WGT – 368.1 DODECYL DIMETHYL 3-PHENYLPROPYLAMMONIUM CHLORIDE C6H5CH2CH2/N/CH3/2/C12H25								
	UNK	3.13 X10-3 M	CC	UNSPECIFIED CONDUCTANCE	CELL EGGE	52001	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 408 MOL WGT – 344.6 POTASSIUM HEXADECANE 1-SULFONATE								
	80	1.80 X10-3 W	CD	EQUIV CONDCTNCE GRAPH	MURR HART	35001	K	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 409 MOL WGT – 415.6 TRIETHANOLAMMONIUM DODECYL SULFATE								
		59017		VALUES FRM REF IN CMC	KASH	58021		R
	33	4. X10-3 M	BE	SURFACE TNSN LINEAR PLOT	KASH EZAK	59017	T	L
	40	4. X10-3 M	BE	FOAMING POWER	KASH EZAK	59017	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 410 MOL WGT – 353.5 MORPHOLINIUM DODECYL SULFATE								
		59017		VALUES FRM REF IN CMC	KASH	58021		R
	40	3. X10-3 M	BE	FOAMING POWER	KASH EZAK	59017	T	L
	40	4. X10-3 M	BE	SURFACE TNSN LINEAR PLOT	KASH EZAK	59017	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 411 MOL WGT – 217.4 DECYLAMMONIUM ACETATE								
	UNK	4. X10-2 M	CE	METHOD NOT CITED	SOMA HEAL	64035	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 412 MOL WGT – 245.5 DODECYLAMMONIUM ACETATE								
	UNK	1.3 X10-2 M	CD	METHOD NOT CITED	SOMA HEAL	64035	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 413 MOL WGT – 273.5 TETRADECYLAMMONIUM ACETATE								
	UNK	4. X10-3 M	CE	METHOD NOT CITED	SOMA HEAL	64035	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 414 MOL WGT – 301.6 HEXADECYLAMMONIUM ACETATE								
	UNK	8. X10-4 M	CE	METHOD NOT CITED	SOMA HEAL	64035	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 415 MOL WGT – 329.6 OCTADECYLAMMONIUM ACETATE								
	UNK	3 X10-4 M	CE	METHOD NOT CITED	SOMA HEAL	64035	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 416 MOL WGT – 314.1 PERFLUORO HEXANOIC ACID								
				QUESTIONABLE CRITERION	KLEV RAIS	54010		R
				QUESTIONABLE CRITERION	KLEV VERG	57017		R
		57017		VALUES FRM REF IN CMC	KLEV VERG	56010		R
	0	1.09 X10-1 M	BC	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	3
	18.5	8.2 X10-2 M	BC	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
	18	1.06 X10-1 M	BC	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	3
	25	5.4 X10-2 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	I
	UNK	5.0 X10-2 M	CG	METHOD NOT CITED	KLEV CARR	56001	T	L
	UNK	5.1 X10-2 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
E 0 PH OF SOLUTION	UNK			GRAPH DATA NOT RETRIEVED	KLEV RAIS	54004		R
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 417 MOL WGT – 414.1 PERFLUORO OCTANOIC ACID								
				QUESTIONABLE CRITERION	KLEV RAIS	54010		R
				QUESTIONABLE CRITERION	KLEV VERG	57017		R
		57017		VALUES FRM REF IN CMC	KLEV VERG	56010		R
	18.5	9.0 X10-3 M	BC	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
	18	9.8 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	3
	25	5.6 X10-3 M	BC	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	30	8.7 X10-3 M	BC	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
	35	9.3 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	3
	45	1.02 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	3
	UNK	5.1 X10-3 M	CG	METHOD NOT CITED	KLEV CARR	56001	T	L
2.5 E-2 M H CL	30	3.2 X10-3 M	BC	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
5. E-2 M H CL	30	2. X10-3 M	BE	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
5. E-2 M K CL	30	5. X10-3 M	BE	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
5. E-3 M K OH	30	1.12 X10-2 M	BD	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
1. E-2 M K OH	30	1.52 X10-2 M	BD	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
2.5 E-2 M K OH	30	3.02 X10-2 M	BD	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
5. E-2 M K OH	30	2.4 X10-2 M	BD	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
1.0 E-1 M K OH	30	1.9 X10-2 M	BD	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
. E 0 PH OF SOLUTION	UNK			GRAPH DATA NOT RETRIEVED	KLEV RAIS	54004		R
2.5 E 1 C 0001	30	1.10 X10-2 M	CD	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
5.0 E 1 C 0001	30	4.5 X10-3 M	CD	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
8.0 E 1 C 0001	30	5. X10-3 M	CE	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
9.0 E 1 C 0001	30	5.5 X10-3 M	CE	SURFACE TENSION MINIMUM	KLEV RAIS	54010	T	L
23 ENTRIES FOR COMPOUND								
COMPOUND NO = 418 MOL WGT – 258.3 SODIUM UNDECYL SULFONATE								
	20	1.9 X10-2 M	BC	INTERFACIAL TENSION LOGM	V VO	60025	T	L
3. E-2 K NA CL	20	1.4 X10-2 M	BC	INTERFACIAL TENSION LOGM	V VO	60025	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 419 MOL WGT – 356.5 SODIUM ALPHA-HEPTYL UNDECYL SULFONATE								
	20	3.6 X10-4 M	BB	INTERFACIAL TENSION LOGM	V VO	60025	T	L
1. E-3 K NA CL	20	2.9 X10-4 M	BB	INTERFACIAL TENSION LOGM	V VO	60025	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 420 MOL WGT – 360.6 POTASSIUM 1-1-2-OCTANE TRICARBOXYLATE								
	25	7.9 X10-1 M	DG	VISUAL SPCTR CHNGE PNCN	SHIN	56003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 421 MOL WGT – 416.7 POTASSIUM 1-1-2-DODECANE TRICARBOXYLATE								
	25	9.5 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	SHIN	56003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 422 MOL WGT – 472.8 POTASSIUM 1-1-2-HEXADECANE TRICARBOXYLATE								
	25	1.2 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	SHIN	56003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 423 MOL WGT – 174.3 OCTYL/OXYETHYLENE/1 ALCOHOL--OCTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP								
	25	4.9 X10-3 M	BC	SURFACE TENSION LOG PLOT	SHIN YAMA	59013	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 424 MOL WGT – 204.3 OCTYL ALPHA-GLYCERYL ETHER								
	25	5.8 X10-3 M	BC	SURFACE TENSION LOG PLOT	SHIN YAMA	59013	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 425 MOL WGT – 388.6 POTASSIUM 1-1-2-DECANE TRICARBOXYLATE								
	25			THEORETICALLY ESTIMATED	SHIN	56003	T	R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 426 MOL WGT – 444.7 POTASSIUM 1-1-2-TETRADECANE TRICARBOXYLATE								
	25			THEORETICALLY ESTIMATED	SHIN	56003	T	R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 427 MOL WGT – 384.5 HEXADECYL PYRIDINIUM BROMIDE								
	25	6.2 X10-4 M	CB	SPECFC CONDCTNCE GRAPH	BENT SPAR	66038	T	L
	25	5.81 X10-4 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
	25	7.00 X10-4 W	BD	SPECFC CONDCTNCE GRAPH	CZER	65037	T	L
	27.0	4.8 X10-4 M	BC	KRAFFT POINT SOLUBILITY	ADDI FURM	56019	T	L
	30.0	4.7 X10-4 M	BC	INTERFACIAL TNSN UNSPEC	ADDI FURM	56019	T	L
	35	7.5 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	HART COLL	36001	T	3
	35	7.7 X10-4 M	BB	SPECFC CONDCTNCE GRAPH	HART COLL	36001	P	3
	35	7.80 X10-4 W	BD	SPECFC CONDCTNCE GRAPH	CZER	65037	T	L
	45	8.90 X10-4 W	BD	SPECFC CONDCTNCE GRAPH	CZER	65037	T	L
	55	1.035X10-3 W	BD	SPECFC CONDCTNCE GRAPH	CZER	65037	T	L
3. E-3 M K BR	40	3.4 X10-4 M	BD	TURBIDITY PLT LITE SCATR	TART	59010	T	L
6.4 E 0 H METHANOL	25	7.51 X10-4 M	BC	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
1.470E 1 H METHANOL	25	1.18 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
1.991E 1 H METHANOL	25	1.69 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2.602E 1 H METHANOL	25	2.81 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
3.520E 1 H METHANOL	25	6.01 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
E 0 0099				GRAPH DATA NOT RETRIEVED	LANG	53005		R
E 0 0290				GRAPH DATA NOT RETRIEVED	LANG	53005		R
18 ENTRIES FOR COMPOUND								
COMPOUND NO = 428 MOL WGT - 114.0 PERFLUORO ACETIC ACID								
				QUESTIONABLE CRITERION	KLEV RAIS	54010		R
		57017		VALUES FRM REF IN CMC	KLEV VERG	56010		R
	25	2.6 X10 0 M	BE	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
	25			QUESTIONABLE CRITERION	KLEV	58011		R
	35			QUESTIONABLE CRITERION	KLEV VERG	57017		R
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 429 MOL WGT - 164.0 PERFLUORO PROPIONIC ACID								
		57017		VALUES FRM REF IN CMC	KLEV VERG	56010		R
	25	1.11 X10-3 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	35			QUESTIONABLE CRITERION	KLEV VERG	57017		R
	35	1.21 X10 0 M	AC	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 430 MOL WGT - 214.0 PERFLUORO BUTYRIC ACID								
				QUESTIONABLE CRITERION	KLEV RAIS	54010		R
				QUESTIONABLE CRITERION	KLEV VERG	57017		R
		57017		VALUES FRM REF IN CMC	KLEV VERG	56010		R
	0	5.5 X10-1 M	AC	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	L
	04.9-	1.49 X10 0 W	AC	FREEZING POINT	HOLL CADY	59023	C	L
	18	5.0 X10-1 M	AC	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	L
	25	7.1 X10-1 M	BC	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
	25	5.3 X10-1 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	35	4.9 X10-1 M	AC	EQUIV CONDCTNCE GRAPH	KLEV VERG	57017	P	L
9 ENTRIES FOR COMPOUND								
COMPOUND NO = 431 MOL WGT - 574.9 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/8.5 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	UNK	8.8 X10-3 D	HC	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 432 MOL WGT - 641.0 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	UNK	8.1 X10-3 D	HC	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
E 0 NA CL	25			SUMMARIZING EQN ONLY	BECH	62002		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 433 MOL WGT - 861.3 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/15 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	UNK	1.3 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
E 0 NA CL	25			SUMMARIZING EQN ONLY	BECH	62002		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 434 MOL WGT - 1,169.7 TRIDECYL/OXO-PROCESS/ /OXYETHYLENE/22 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	UNK	2.8 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
E 0 NA CL	25			SUMMARIZING EQN ONLY	BECH	62002		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 435 MOL WGT - 711.2 OCTADECYL/OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
				QUESTIONABLE CRITERION	BECH	62002		R
		62002		VALUES FRM REF IN CMC	BECH	59006		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 436 MOL WGT - 1,151.8 OCTADECYL/OXYETHYLENE/20 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
				QUESTIONABLE CRITERION	BECH	62002		R
		62002		VALUES FRM REF IN CMC	BECH	59006		R
2 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 437 MOL WGT = 797.3 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	UNK	3.3 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 438 MOL WGT = 973.5 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/16 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	UNK	3.2 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 439 MOL WGT = 1,149.7 OLEYL/CIS-9-OCTADECENOYL/ /OXYETHYLENE/20 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	UNK	2.9 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 440 MOL WGT = 522.8 /OXYETHYLENE/4 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS								
	UNK	1.3 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 441 MOL WGT = 699.0 /OXYETHYLENE/8 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS								
	UNK	1.2 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 442 MOL WGT = 787.1 /OXYETHYLENE/10 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS								
	UNK	1.2 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 443 MOL WGT = 1,227.7 /OXYETHYLENE/20 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS								
	UNK	1.4 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 444 MOL WGT = 1,448.0 /OXYETHYLENE/25 SORBITAN MONOLAURATE ISOMERS AND DISTRIBUTED MULTIPLE OE CHAINS								
	UNK	1.4 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	BECH	59006	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 445 MOL WGT = 292.3 SODIUM PARA-BIS-/N-BUTYL/ BENZENE SULFONATE								
	60			QUESTIONABLE CRITERION	KOBE KLAM	60017		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 446 MOL WGT = 348.5 SODIUM PARA-BIS-/N-HEXYL/ BENZENE SULFONATE								
	60			QUESTIONABLE CRITERION	KOBE KLAM	60017		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 447 MOL WGT = 404.6 SODIUM PARA-BIS-/N-OCTYL/ BENZENE SULFONATE								
	60			QUESTIONABLE CRITERION	KOBE KLAM	60017		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 448 MOL WGT = 306.5 SODIUM OCTADECANOATE /STEARATE/								
				QUESTIONABLE CRITERION	STAU	39006		R
	50	1.8 X10-3 M	HC	SPECFC CONDCTNCE GRAPH	MARO ELDE	54006	T	L
	UNK	4. X10-2 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		1.3 X10-3 M					M	
1. E-1 H NA OH	70	7.5 X10-5 M	CC	SURFACE TENSION LOG PLOT	POWN ADDI	38006	K	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 449 MOL WGT = 235.9 DODECYLMETHYL AMMONIUM CHLORIDE								
	30	1.46 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS BROO	49013	T	3
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions: M—molar; N—normal; P—wt %; O—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 450 MOL WGT – 249.9 DODECYLDIMETHYL AMMONIUM CHLORIDE								
	30	1.61 X10-2 M	BC	EQUIV CONDCTNCE GRAPH	RALS BROO	49013	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 451 MOL WGT – 448.1 PARA DI-ISOBUTYLPHENOXYETHOXYETHYL DIMETHYLBENZYL AMMONIUM CHLORIDE /HYAMINE 1622/								
				QUESTIONABLE CRITERION	ROSS HUDS	57010		R
				GRAPH DATA NOT RETRIEVED	COHE VASS	61027		R
	24.7	1.6 X10-1 P	HC	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
E 0 DC ANTIFOAM A (PMS*)	24.7	1.7 X10-1 P	HC	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
5. E-2 P DECANOL-1	24.7	9. X10-2 P	HD	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
5. E-2 P LAURYL ALCOHOL	24.7	1.1 X10-1 P	HD	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
5. E-2 P TRIBUTYL PHOSPHATE	24.7	1.5 X10-1 P	HC	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
5.0 E-1 P TRIBUTYL PHOSPHATE	24.7	1.4 X10-1 P	HC	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
5. E-2 P 2-ETHYL HEXANOL	24.7	1.3 X10-1 P	HC	SPECFC CONDCTNCE GRAPH	ROSS BRAM	57031	T	L
9 ENTRIES FOR COMPOUND								
COMPOUND NO = 452 MOL WGT – 246.9 3-4-DICHLOROPERFLUORO BUTYRIC/KEL-F/ACID								
	25	7.0 X10-1 M	HG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 453 MOL WGT – 363.4 3-5-6-TRICHLOROPERFLUORO HEXANOIC/KEL-F/ACID								
	25	6.2 X10-2 M	HG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 454 MOL WGT – 479.9 3-5-7-8-TETRACHLOROPERFLUORO OCTANOIC/KEL-F/ACID								
	25	9.1 X10-3 M	HG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 455 MOL WGT – 514.1 PERFLUORO DECANOIC ACID								
	25	4.8 X10-4 M	BG	UNSPEC SPCTR CHNG PNCN	KLEV	58011	T	L
	30	8.9 X10-4 M	BC	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
	UNK	8. X10-4 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 456 MOL WGT – 452.2 POTASSIUM PERFLUORO OCTANOATE								
	25	2.88 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	30	2.74 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	30	2.63 X10-2 M	BC	SURFACE TENSION LOG PLOT	KLEV RAIS	54010	T	L
	40	2.65 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	55	2.76 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	70	3.07 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	85	3.54 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	T	3
	UNK	2.7 X10-2 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
9.4 E-3 W K NO3	30	2.43 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
1.82 E-2 W K NO3	30	2.22 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
2.96 E-2 W K NO3	30	2.01 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
8.3 E-3 W K NO3	40	2.40 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
2.39 E-2 W K NO3	40	2.07 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
4.08 E-2 W K NO3	40	1.79 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
7.31 E-2 W K NO3	40	1.46 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
1.13 E-2 W K NO3	55	2.42 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
2.30 E-2 W K NO3	55	2.17 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
3.54 E-2 W K NO3	55	1.93 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
4.65 E-2 W K NO3	55	1.82 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
6.01 E-2 W K NO3	55	1.65 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
7.77 E-2 W K NO3	55	1.49 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
1.28 E-2 W K NO3	70	2.75 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
3.77 E-2 W K NO3	70	2.22 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
8.22 E-2 W K NO3	70	1.82 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
4.65 E-2 W K NO3	85	2.59 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
7.71 E-2 W K NO3	85	2.27 X10-2 W	BB	UNSPECIFIED CONDUCTANCE	SHIN KATS	64011	L	3
26 ENTRIES FOR COMPOUND								
COMPOUND NO = 457 MOL WGT – 118.2 1-4-HEXANEDIOL								
	24	1.9 X10-1 M	BC	SURFACE TENSION LOG PLOT	KATO	63037	T	L
	UNK	2.0 X10-1 M	BC	FOTOMTR SOLUBLZTN SDN 4	KATO	63037	T	L
	UNK	1.9 X10-1 M	BC	REFRACTIVE INDEX	KATO	63037	T	L
3 ENTRIES FOR COMPOUND								

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 458 MOL WGT = 347.3 DECYL PYRIDINIUM IODIDE								
	RM	2.4 X10-2 M	CC	FOTOMTR SOLUBLZTN OROT	HARK KRIZ	51010	T	L
	RM	2.25 X10-2 M	CB	MICELLAR SPECTRAL CHANGE	HARK KRIZ	51010	T	3
	RM	2.23 X10-2 M	CG	VISUAL SPCTR CHNGE SKYB	HARK KRIZ	51010	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 459 MOL WGT = .0 ALKYL/15-17/ /OXYETHYLENE/ /19-23/ALCOHOL /CETOMACROGOL 1000/								
	20	6.3 X10-3 D	HC	SURFACE TENSION LOG PLOT	ELWO	60027	T	L
	20	7. X10-3 D	HE	FOTOMTR SOLUBLZTN DMYL	ELWO	60027	T	L
	UNK	2.1 X10-3 D	HG	SURFACE TENSION UNSPEC	WAN	66018	T	L
	UNK	1.1 X10-3 D	HE	SURFACE TENSION UNSPEC	HUGO NEWT	60026	T	L
	UNK	1.2 X10-3 D	HE	FOTOMTR SPCTR CHNG I2	HUGO NEWT	60026	T	L
	UNK	7.0 X10-3 D	HD	FOTOMTR SPCTR CHNG I2	ELWO	60027	T	L
2. E-1 M NA CL	UNK	6.7 X10-3 D	HD	FOTOMTR SPCTR CHNG I2	ELWO	60027	G	L
7. E-1 M NA CL	UNK	6.2 X10-3 D	HD	FOTOMTR SPCTR CHNG I2	ELWO	60027	G	L
1.0 E 0 M NA CL	UNK	5.8 X10-3 D	HD	FOTOMTR SPCTR CHNG I2	ELWO	60027	G	L
1.5 E 0 M NA CL	UNK	4.7 X10-3 D	HD	FOTOMTR SPCTR CHNG I2	ELWO	60027	G	L
2.0 E 0 M NA CL	UNK	3.5 X10-3 D	HD	FOTOMTR SPCTR CHNG I2	ELWO	60027	G	L
2.5 E 0 M NA CL	UNK	3. X10-3 D	HE	FOTOMTR SPCTR CHNG I2	ELWO	60027	T	L
12 ENTRIES FOR COMPOUND								
COMPOUND NO = 460 MOL WGT = 356.5 DODECYL TROPYLIUM MONOPHOSPHATE								
8.5 E 1 H H3 P04	25	1.0 X10-3 M	BD	SURFACE TENSION LOG PLOT	ABUH MYSE	65019	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 461 MOL WGT = 118.2 BUTYL/OXYETHYLENE/1 ALCOHOL--BUTYL GLYCOL ETHER HOMOGENEOUS HEAD GROUP								
	25	9.8 X10-1 M	CC	REFRACTIVE INDEX	DONB JACO	66019	T	L
	UNK	8.8 X10-1 M	CC	SURFACE TENSION LOG PLOT	DONB JACO	66019	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 462 MOL WGT = 376.4 SODIUM MONOLAURIN SULFATE								
	25	5.2 X10-3 M	CC	SPECFC CONDCTNCE GRAPH	BISW MUKH	60028	T	L
	UNK	2.6 X10-3 M	CG	VISUAL SPCTR CHNGE RHD6	BISW MUKH	60028	T	L
4. E-3 M NA CL	25	3.4 X10-3 M	CC	SPECFC CONDCTNCE GRAPH	BISW MUKH	60028	T	L
1. E-2 M NA CL	25	1.6 X10-3 M	CC	SPECFC CONDCTNCE GRAPH	BISW MUKH	60028	T	L
2. E-2 M NA CL	25	1.03 X10-3 M	CD	SPECFC CONDCTNCE GRAPH	BISW MUKH	60028	T	L
3. E-2 M NA CL	25	6.025X10-3 M	CE	SPECFC CONDCTNCE GRAPH	BISW MUKH	60028	T	L
4. E-3 M NA CL	UNK	1.75 X10-3 M	CG	VISUAL SPCTR CHNGE RHD6	BISW MUKH	60028	T	L
1. E-2 M NA CL	UNK	1.3 X10-3 M	CG	VISUAL SPCTR CHNGE RHD6	BISW MUKH	60028	T	L
2. E-2 M NA CL	UNK	9. X10-4 M	CG	VISUAL SPCTR CHNGE RHD6	BISW MUKH	60028	T	L
3. E-2 M NA CL	UNK	6.3 X10-4 M	CG	VISUAL SPCTR CHNGE RHD6	BISW MUKH	60028	T	L
4. E-2 M NA CL	UNK	4.5 X10-4 M	CG	VISUAL SPCTR CHNGE RHD6	BISW MUKH	60028	T	L
11 ENTRIES FOR COMPOUND								
COMPOUND NO = 463 MOL WGT = 705.0 NONYL BENZENE/OXYETHYLENE/11 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	28	2.47 X10-5 M	HD	SURFACE TENSION LOG PLOT	MANK	66021	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 464 MOL WGT = 881.3 NONYL BENZENE/OXYETHYLENE/15 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	21.2	3.10 X10-5 M	HD	SURFACE TENSION LOG PLOT	MANK	66021	T	L
	25	2.85 X10-5 M	HD	SURFACE TENSION LOG PLOT	MANK	66021	T	L
	28	2.71 X10-5 M	HD	SURFACE TENSION LOG PLOT	MANK	66021	T	L
	33.5	2.69 X10-5 M	HD	SURFACE TENSION LOG PLOT	MANK	66021	T	L
	41.5	2.36 X10-5 M	HD	SURFACE TENSION LOG PLOT	MANK	66021	T	L
	45	2.27 X10-5 M	HD	SURFACE TENSION LOG PLOT	MANK	66021	T	L
6 ENTRIES FOR COMPOUND								
COMPOUND NO = 465 MOL WGT = 596.9 TRIDECYL/OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	28	1.49 X10-5 M	HD	SURFACE TENSION LOG PLOT	MANK	66021	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 466 MOL WGT = 596.9 TRIDECYL/SECONDARY/ /OXYETHYLENE/9 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	28	5.15 X10-5 M	HD	SURFACE TENSION LOG PLOT	MANK	66021	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 467 MOL WGT = 729.1 TRIDECYL/SECONDARY/ /OXYETHYLENE/12 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	28	8.67 X10-5 M	HD	SURFACE TENSION LOG PLOT	MANK	66021	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 468 MOL WGT = 459.6 DODECYL/OXYETHYLENE/6.2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	30	8 X10-5 M	ED	FOTOMTR SOLUBLZTN YLOB	TOKI	64024	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 469 MOL WGT = 521.2 DODECYL/OXYETHYLENE/7.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	30	9. X10-5 M	ED	FOTOMTR SOLUBLZTN YLOB	TOKI	64024	T	L
	30	2.6 X10-4 M	EE	SURFACE TENSION LOG PLOT	TOKI	64024	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 470 MOL WGT = 653.4 DODECYL/OXYETHYLENE/10.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	30	1.2 X10-4 M	ED	FOTOMTR SOLUBLZTN SDN 4	TOKI	64024	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 471 MOL WGT = 882.5 DODECYL/OXYETHYLENE/15.8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	30	1.8 X10-4 M	ED	FOTOMTR SOLUBLZTN YLOB	TOKI	64024	T	L
	30	2.8 X10-4 M	EE	SURFACE TENSION LOG PLOT	TOKI	64024	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 472 MOL WGT = 1,085.2 DODECYL/OXYETHYLENE/20.4 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	30	2.1 X10-4 M	EC	FOTOMTR SOLUBLZTN SDN 4	TOKI	64024	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 473 MOL WGT = 1,380.4 DODECYL/OXYETHYLENE/27.1 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	30	2.5 X10-4 M	EC	FOTOMTR SOLUBLZTN SDN 4	TOKI	64024	T	L
	30	3.8 X10-4 M	EE	SURFACE TENSION LOG PLOT	TOKI	64024	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 474 MOL WGT = 1,887.1 DODECYL/OXYETHYLENE/38.6 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	30	3.6 X10-4 M	EC	FOTOMTR SOLUBLZTN SDN 4	TOKI	64024	T	L
	30	5.0 X10-4 M	EE	SURFACE TENSION LOG PLOT	TOKI	64024	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 475 MOL WGT = 3,151.6 DODECYL/OXYETHYLENE/67.3 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	30	5.7 X10-4 M	EC	FOTOMTR SOLUBLZTN SDN 4	TOKI	64024	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 476 MOL WGT = 166.2 SODIUM OCTANOATE								
	20	7. X10-2 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T	L
	20	3.6 X10-1 M	DE	VISCOSITY	HESS PHIL	39009	T	L
	25	3.40 X10-1 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	L
	25	3.51 X10-1 M	DB	SURFACE TENSION LOG PLOT	CAMP LAKS	65024	T	L
	35	3.60 X10-1 M	DB	SPECFC CONDCTNCE GRAPH	CAMP LAKS	65024	T	L
	50	3.85 X10-1 M	DB	SURFACE TENSION LOG PLOT	CAMP LAKS	65024	T	L
6 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 477 MOL WGT = 392.6 OCTADECYL TRIMETHYLAMMONIUM BROMIDE								
	23	3.0 X10-4 M	HG	STREAMING CURRENT	CARD	66011	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 478 MOL WGT = 378.6 HEXADECYL DIMETHYLETHYLAMMONIUM BROMIDE								
	23	4.8 X10-3 M	GH	STREAMING CURRENT	CARD	66011	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 479 MOL WGT = 403.4 TETRADECYL PYRIDINIUM IODIDE								
	28.0	7.9 X10-4 M	BC	KRAFFT POINT SOLUBILITY	ADDI FURM	56019	T	L
	40.0	1.2 X10-3 M	BD	INTERFACIAL TNSN UNSPEC	ADDI FURM	56019	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 480 MOL WGT = 431.5 HEXADECYL PYRIDINIUM IODIDE								
	35.0	3.1 X10-4 M	BC	KRAFFT POINT SOLUBILITY	ADDI FURM	56019	T	L
	50.0	4.4 X10-4 M	BC	INTERFACIAL TNSN UNSPEC	ADDI FURM	56019	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 481 MOL WGT = 459.6 OCTADECYL PYRIDINIUM IODIDE								
	45.5	1.3 X10-4 M	BD	KRAFFT POINT SOLUBILITY	ADDI FURM	56019	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 482 MOL WGT = 248.4 DODECYL AMMONIUM NITRATE								
	30	9.9 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	3
2. E-2 N ACETIC ACID	30	9.9 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
2. E-2 N H CL	30	7.1 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
2. E-2 N NA ACETATE	30	6.9 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
2. E-2 N NA CL	30	6.9 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	RALS EGGE	49008	K	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 483 MOL WGT = 306.0 DIOCTYL DIMETHYL AMMONIUM CHLORIDE								
	30	2.83 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	48014	K	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 484 MOL WGT = 124.1 SODIUM PENTANOATE/VALERATE/								
	20	2.35 X10 0 M	DD	X-RAY DIFFRACTION	HESS PHIL	39009	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 485 MOL WGT = 138.2 SODIUM HEXANOATE/CAPROATE/								
	20	1.57 X10 0 M	DE	VISCOSITY	HESS PHIL	39009	T	L
1.1 E 1 PH OF SOLUTION	5	6.60 X10-1 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	20	7.30 X10-1 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	60	8.90 X10-1 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	90	1.11 X10 0 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 486 MOL WGT = 152.2 SODIUM HEPTANOATE								
	20	9.5 X10-1 M	DE	VISCOSITY	HESS PHIL	39009	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 487 MOL WGT = 180.2 SODIUM NONANOATE								
	20	2.4 X10-1 M	XG	VISCOSITY MINIMUM	SATA TYUZ	53006	T	L
	20	2.2 X10-1 M	DE	VISCOSITY	HESS PHIL	39009	T	L
1.1 E 1 PH OF SOLUTION	20	1.59 X10-1 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	60	1.82 X10-1 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
1.1 E 1 PH OF SOLUTION	90	2.04 X10-1 M	BC	SPECFC CONDCTNCE GRAPH	MARK TSIK	64051	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 488 MOL WGT = 494.8 DODECYL/OXYETHYLENE/7 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	23	7.1 X10-5 M	PE	FOTOMTR SPCTR CHNG I2	LANG	60012	T	L
	23	8.0 X10-5 M	PB	SURFACE TENSION LOG PLOT	LANG	60012	T	L
2 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 489 MOL WGT – 582.9 DODECYL/OXYETHYLENE/9 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	23	8.3 X10-5 M	PE	FOTOMTR SPCTR CHNG I2	LANG	60012	T	L
	23	1.0 X10-4 M	PC	SURFACE TENSION LOG PLOT	LANG	60012	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 490 MOL WGT – 715.1 DODECYL/OXYETHYLENE/12 ALCOHOL								
HOMOGENEOUS HEAD GROUP								
	23	1.4 X10-4 M	PC	SURFACE TENSION LOG PLOT	LANG	60012	T	L
	23	1.08 X10-4 M	PE	FOTOMTR SPCTR CHNG I2	LANG	60012	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 491 MOL WGT – 356.5 DODECYL TROPYLIUM BISULFATE								
6.0 E 1 H H2 SO4	25	1.0 X10-3 M	BD	SURFACE TENSION LOG PLOT	ABUH MYSE	65019	T	L
7.8 E 1 H H2 SO4	25	2.2 X10-3 M	BC	SURFACE TENSION LOG PLOT	ABUH MYSE	65019	T	3
9.6 E 1 H H2 SO4	25	1.25 X10-2 M	BC	SURFACE TENSION LOG PLOT	ABUH MYSE	65019	T	3
9.6 E 1 H H2 SO4	25	5.4 X10-3 M	BC	SURFACE TENSION LOG PLOT	ABUH MYSE	65019	T	3
9. E-1 M NA2 SO4								
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 492 MOL WGT – 348.5 SODIUM TETRAPROPYLENE/1-3-5-7-TETRAMETHYL-OCTYL/ BENZENE SULFONATE								
	75	3.14 X10-3 M	BG	VISUAL SPCTR CHNGE RHDG	GRIE	55028	T	L
2. E-1 M NA CL	20	3.0 X10-4 M	CC	SURFACE TENSION LOG PLOT	HARR	59001	K	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 493 MOL WGT – 306.4 SODIUM P-NONYL BENZENE SULFONATE								
	20	4.6 X10-3 M	BB	SURFACE TENSION LOG PLOT	HARR	59001	L	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 494 MOL WGT – .0 POTASSIUM DILINOLEATE								
	25.8	2.5 X10-4 M	HG	FOTOMTR SPCTR CHNGE PNCN	CORR KLEV	46010	T	L
	25.8	3.0 X10-4 M	HC	SPECFC CONDCTNCE GRAPH	CORR KLEV	46010	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 495 MOL WGT – 524.7 SUCROSE MONOLAURATE								
	20	1.85 X10-4 M	BE	INTERFACIAL TENSION LOGM	WACH HAYA	62023	T	L
	20	1.3 X10-4 M	BE	SURFACE TENSION LOG PLOT	WACH HAYA	62023	T	L
	27.1	6.4 X10-6 M	CD	SURFACE TENSION LOG PLOT	OSIP SNEL	57024	T	L
	27.1	3.4 X10-4 M	CD	SURFACE TENSION LOG PLOT	OSIP SNEL	57024	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 496 MOL WGT – 608.9 SUCROSE MONOSTEARATE								
	50	1.1 X10-5 M	BE	SURFACE TENSION LOG PLOT	WACH HAYA	62023	TL	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 497 MOL WGT – 552.7 SUCROSE MONOMYRISTATE								
	20	2.58 X10-5 M	BE	INTERFACIAL TENSION LOGM	WACH HAYA	62023	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 498 MOL WGT – 580.8 SUCROSE MONOPALMITATE								
	50	5.5 X10-5 M	BE	SURFACE TENSION LOG PLOT	WACH HAYA	62023	TL	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 499 MOL WGT – 819.3 SUCROSE DI-PALMITATE								
				QUESTIONABLE CRITERION	WACH HAYA	62023		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 500 MOL WGT – 354.0 DODECYL TRI/2-HYDROXYETHYL/AMMONIUM CHLORIDE								
	30	1.38 X10-2 M	BB	EQUIV CONDCTNCE GRAPH	RALS EGGE	49009	K	3
1 ENTRIES FOR COMPOUND								

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 501 MOL WGT = 264.3 SODIUM HEXYL BENZENE SULFONATE								
	75	3.71 X10-2 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
	UNK	1.61 X10 0 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		6.091X10-2 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 502 MOL WGT = 278.3 SODIUM HEPTYL BENZENE SULFONATE								
	75	2.09 X10-2 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
	UNK	5.98 X10-1 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		2.148X10-2 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 503 MOL WGT = 292.3 SODIUM OCTYL BENZENE SULFONATE								
	75	1.06 X10-2 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	TA	L
	UNK	3.2 X10-1 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		1.09 X10-2 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 504 MOL WGT = 306.4 SODIUM NONYL BENZENE SULFONATE								
	75	6.50 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 505 MOL WGT = 320.4 SODIUM DECYL BENZENE SULFONATE								
	75	3.70 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
	UNK	1.2 X10-1 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		3.74 X10-3 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 506 MOL WGT = 348.5 SODIUM DODECYL BENZENE SULFONATE								
	75	1.19 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
	UNK	4.1 X10-2 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		1.17 X10-3 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 507 MOL WGT = 376.5 SODIUM TETRADECYL BENZENE SULFONATE								
	75	6.6 X10-4 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
	UNK	2.5 X10-2 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		6.64 X10-4 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 508 MOL WGT = 404.6 SODIUM HEXADECYL BENZENE SULFONATE								
	75	5.35 X10-4 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
	UNK	1.6 X10-2 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		3.95 X10-4 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 509 MOL WGT = 432.6 SODIUM OCTADECYL BENZENE SULFONATE								
	75	6.38 X10-4 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
	UNK	1.0 X10-2 D	XG	VISUAL SPCTR CHNGE PNCN	DEMC	61031	T	L
		2.31 X10-4 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 510 MOL WGT = 292.3 SODIUM 2-ETHYL-HEXYL BENZENE SULFONATE								
	75	2.54 X10-2 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 511 MOL WGT = 320.4 SODIUM 2-PROPYL-HEPTYL BENZENE SULFONATE								
	75	8.48 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 512 MOL WGT = 348.5 SODIUM 2-BUTYL-OCTYL BENZENE SULFONATE								
	75	3.20 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A — mol %; B — vol % solvent; C — mol % surfactant mixture; D — wt/vol %; E — % saturation; H — wt % solvent; I — mol % surfactant; K — normality counterions; M — molar; N — normal; P — wt %; Q — wt % surfactant; R — varied; S — mol/kg; T — wt % surfactant mixture; U — mol/(l or kg); W — molal; Y — atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 513 MOL WGT = 376.5 SODIUM 2-AMYL-NONYL BENZENE SULFONATE	75	3.32 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 514 MOL WGT = 348.5 SODIUM 6-N-DODECYL BENZENE SULFONATE	75	3.12 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	GRIE	55028	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 515 MOL WGT = 306.5 ISO-OCTYL/OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION	25	5.00 X10-1 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 516 MOL WGT = 320.5 NONYL/OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION	25	3.45 X10-1 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 517 MOL WGT = 598.9 DECYL/OXO-PROCESS/ /OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION	25	1.30 X10-1 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 518 MOL WGT = 450.7 TRIMETHYLNONYL/OXYETHYLENE/6 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION	25	8.4 X10-2 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 519 MOL WGT = 334.6 DECYL/OXO-PROCESS/ /OXYETHYLENE/4 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION	25	6.6 X10-2 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 520 MOL WGT = 524.8 UNDECYL/OXYETHYLENE/8 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS	25	2.3 X10-2 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 521 MOL WGT = 641.0 TRIDECYL/OXYETHYLENE/10 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION	25	9.4 X10-3 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 522 MOL WGT = 727.9 DECYL BENZENE ORTHO/OXYETHYLENE/11.2 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS	25	2.15 X10-3 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 523 MOL WGT = 719.1 DECYL BENZENE PARA/OXYETHYLENE/11.0 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS	25	1.4 X10-3 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 524 MOL WGT = 859.3 HEXADECYL/OXYETHYLENE/14 ALCOHOL BRANCHED CHAIN, NATURAL OE DISTRIBUTION	25	1.3 X10-3 P	HD	SURFACE TENSION LOG PLOT	KOMO BEIS	66022	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 525 MOL WGT = 316.4 SODIUM TETRADECYL 6-SULFATE								
	60	9.80 X10-3 M	CB	UNSPECIFIED CONDUCTANCE	WINS	48008	L	3
	RM	1.23 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	WINS	48008	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 526 MOL WGT = 316.4 SODIUM 2-DI-N-HEXYL ETHYL SULFATE								
	RM	8.38 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	WINS	48008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 527 MOL WGT = 222.3 SODIUM UNDECANE-3-CARBOXYLATE								
	RM	7.8 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	WINS	48008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 528 MOL WGT = 358.9 DODECYL TROPYLIUM PERCHLORATE								
7.0 E 1 H H CL04	25	8.6 X10-4 M	BC	SURFACE TENSION LOG PLOT	ABUH MYSE	65019	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 529 MOL WGT = 144.2 OCTANOIC ACID								
	UNK	8. X10-3 M	XG	SURFACE TENSION UNSPEC	KLEV RAIS	54004	T	L
8.5 E 1 H H2 S04	27	1.4 X10-1 M	CE	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
E 0 PH OF SOLUTION	UNK			GRAPH DATA NOT RETRIEVED	KLEV RAIS	54004		R
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 530 MOL WGT = 172.3 DECANOIC ACID								
8.5 E 1 H H2 S04	27	2.4 X10-2 M	CE	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 531 MOL WGT = 200.4 DODECANOIC ACID								
9.5 E 1 H H2 S04	27	5.7 X10-2 M	CD	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
9.5 E 1 H H2 S04	UNK	1.2 X10 0 D	CB	TURBIDITY PLT LITE SCATR	STEI SHAN	65025	C M	L
		5.98 X10-2 M						
9.5 E 1 H H2 S04	27	5.5 X10-2 M	CD	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
5. E 0 M K H S04								
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 532 MOL WGT = 228.4 TETRADECANOIC ACID								
9.5 E 1 H H2 S04	27	1.3 X10-2 M	CD	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 533 MOL WGT = 256.5 HEXADECANOIC ACID								
9.5 E 1 H H2 S04	27	2.8 X10-3 M	CD	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 534 MOL WGT = 284.5 OCTADECANOIC ACID								
9.5 E 1 H H2 S04	27	4.5 X10-4 M	CD	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
9.55 E 1 H H2 S04	27	6.3 X10-4 M	CD	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
9.62 E 1 H H2 S04	27	1.1 X10-3 M	CD	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
9.73 E 1 H H2 S04	27	1.9 X10-3 M	CD	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
9.5 E 1 H H2 S04	UNK	9.1 X10-3 D	CD	TURBIDITY PLT LITE SCATR	STEI SHAN	65025	C M	L
		3.19 X10-4 M						
9.5 E 1 H H2 S04	27	2.8 X10-4 M	CD	SURFACE TENSION LOG PLOT	STEI SHAN	65025	T	L
5. E 0 M K H S04								
6 ENTRIES FOR COMPOUND								
COMPOUND NO = 535 MOL WGT = 1,035.6 HEXADECYL/OXYETHYLENE/18 ALCOHOL								
	25	1.3 X10-5 M	ED	SURFACE TENSION LOG PLOT	SCHI	66025	L	L
0099	25			SEE CMPD NMBR IN ADDITV	SCHI	66025		X
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 536 MOL WGT = 208.3 NONYL SULFONIC ACID								
	25	4. X10-2 W	CE	EQUIV CONDCTNCE GRAPH	MCBA DYE	39011	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 537 MOL WGT = 236.4 UNDECYL SULFONIC ACID								
	25	1.5 X10-2 W	CD	EQUIV CONDCTNCE GRAPH	MCBA DYE	39011	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 538 MOL WGT – PLURONIC L62								
	UNK	2.40 X10 0 D	HC	FOTOMTR SPCTR CHNG I2	ROSS OLIV	59020	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 539 MOL WGT – RENEX 698								
	UNK	4.7 X10-3 D	HC	FOTOMTR SPCTR CHNG I2	ROSS OLIV	59020	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 540 MOL WGT – SIPONIC BC								
	UNK	1.1 X10-2 D	HD	FOTOMTR SPCTR CHNG I2	ROSS OLIV	59020	T	L
	UNK	1.20 X10-2 D	HC	SURFACE TENSION LOG PLOT	ROSS OLIV	59020	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 541 MOL WGT – 332.4 SODIUM DODECYL MONO-OXYETHYLENE SULFATE								
	50	4.78 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 542 MOL WGT – 376.5 SODIUM DODECYL DIOXYETHYLENE SULFATE								
	50	3.00 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 543 MOL WGT – 464.6 SODIUM DODECYL TETRA-OXYETHYLENE SULFATE								
	50	1.26 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 544 MOL WGT – 360.5 SODIUM TETRADECYL MONO-OXYETHYLENE SULFATE								
	50	1.39 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 545 MOL WGT – 404.5 SODIUM TETRADECYL DI-OXYETHYLENE SULFATE								
	50	1.00 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 546 MOL WGT – 448.6 SODIUM TETRADECYL TRI-OXYETHYLENE SULFATE								
	50	6.92 X10-4 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 547 MOL WGT – 414.6 SODIUM OLEYL MONO-OXYETHYLENE SULFATE								
	50	2.00 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 548 MOL WGT – 458.6 SODIUM OLEYL DI-OXYETHYLENE SULFATE								
	50	1.77 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 549 MOL WGT – 502.7 SODIUM OLEYL TRI-OXYETHYLENE SULFATE								
	50	1.19 X10-3 M	CD	SURFACE TENSION UNSPEC	GOTT	60018	G	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 550 MOL WGT – .0 LAURIC ACID DIETHANOLAMINE CONDENSATE								
	UNK	4.0 X10-5 M	CE	FOTOMTR SPCTR CHNG I2	MALI CHAN	66023	T	L
. E 0 K CL	25	3.98 X10-5 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
. E 0 K I	25	2.50 X10-5 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
. E 0 K NO3	25	1.00 X10-5 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 551 MOL WGT – 440.6 PHENYL SULFOSTEARIC ACID								
	UNK	8.0 X10-5 M	CE	FOTOMTR SPCTR CHNG I2	MALI CHAN	66023	T	L
. E 0 K CL	25	8.20 X10-5 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
. E 0 K I	25	1.21 X10-4 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
. E 0 K NO3	25	9.80 X10-5 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
4 ENTRIES FOR COMPOUND								

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 552 MOL WGT – 454.7 TOLYL SULFOSTEARIC ACID								
	UNK	1.00 X10-4 M	CE	FOTOMTR SPCTR CHNG I2	MALI CHAN	66023	T	L
. E 0 K CL	25	4.898X10-4 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
. E 0 K I	25	7.94 X10-5 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
. E 0 K NO3	25	2.19 X10-5 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 553 MOL WGT – 468.7 XYLYL SULFOSTEARIC ACID								
	UNK	1.20 X10-4 M	CE	FOTOMTR SPCTR CHNG I2	MALI CHAN	66023	T	L
. E 0 K CL	25	3.631X10-4 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
. E 0 K I	25	5.37 X10-5 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
. E 0 K NO3	25	1.29 X10-5 M	CG	POLAROGRAPHIC MAXIMUM	MALI CHAN	66023	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 554 MOL WGT – 348.5 SANTOMERSE 3 /SODIUM DODECYL BENZENE SULFONATE/								
				QUESTIONABLE CRITERION	BROW ROBI	52013		R
	30	5. X10-3 W	HE	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
	50	6.5 X10-3 W	HD	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 555 MOL WGT – .0 TERGITOL TMN								
				QUESTIONABLE CRITERION	BROW ROBI	52013		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 556 MOL WGT – 328.3 ARESKAP 100 /MONOBUTYL PHENYLPHENOL SODIUM MONOSULFONATE/								
	30	1.4 X10-2 W	HD	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 557 MOL WGT – 312.3 ARESKET 300 /MONOBUTYL BIPHENYL SODIUM MONOSULFONATE/								
	30	2.2 X10-2 W	HD	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 558 MOL WGT – 486.4 ARESKLENE 400 /DIBUTYL PHENYLPHENOL DISODIUMDISULFONATE								
	30	1.7 X10-2 W	HD	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 559 MOL WGT – .0 CATOL 605 /(N-(2-KETO-2-(2,-LAUROYL OXYETHYLAMINO)) ETHYL) TRIMETHYLAMMONIUM CHLORIDE/								
	30	5.5 X10-3 W	HD	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 560 MOL WGT – .0 EMULSOL 607L (N-(2-KETO-2-(2,-LAUROYLOXETHYL AMINO)) ETHYL) FYRIDINIUM CHLORIDE								
	0	5. X10-3 W	HE	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
	30	6. X10-3 W	HE	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
	50	8. X10-3 W	HE	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 561 MOL WGT – 320.4 SANTOMERSE D /SODIUM DECYLBENZENE SULFONATE/								
	30	2.1 X10-2 W	HD	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
	50	1.1 X10-2 W	HD	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 562 MOL WGT – 286.3 SODIUM DODECENYL SULFATE								
	50	1.6 X10-2 W	CD	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 563 MOL WGT – .0 ZEPHIRAN /COCONUT DIMETHYLBENZYL AMMONIUM CHLORIDE/								
	30	3. X10-3 W	HE	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
	50	5. X10-3 W	HE	VAPR PRESURE LOWERING	HUFF MCBA	51004	T	L
2 ENTRIES FOR COMPOUND								

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 564 MOL WGT = .0 NA OSR								
	50	2.3 X10-3 M	HC	SPECFC CONDCTNCE GRAPH	MARO ELDE	54006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 565 MOL WGT = .0 DAXAD 11								
	50	8.0 X10-2 D	HC	SPECFC CONDCTNCE GRAPH	MARO ELDE	54006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 566 MOL WGT = .0 AQUAREX D								
	50	3.0 X10-1 D	HC	SPECFC CONDCTNCE GRAPH	MARO ELDE	54006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 567 MOL WGT = .0 SA-178								
	50	1.9 X10-1 D	HC	SPECFC CONDCTNCE GRAPH	MARO ELDE	54006	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 568 MOL WGT = 555.1 MAGNESIUM DODECYL SULFATE								
	25	8.8 X10-4 M	BB	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
	30	1.25 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	SATA IWAM	63034	T	3
	40	1.1 X10-3 M	BC	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
	40	1.0 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	MIYA	60029	T	L
	40	1.1 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	MIYA	60029	T	L
	54	1.1 X10-3 M	BC	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
1. E-1 M MG SO4	30	3. X10-4 M	BE	SURFACE TENSION LOG PLOT	SATA IWAM	63034	T	L
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 569 MOL WGT = 618.4 STRONTIUM DODECYL SULFATE								
	67	1.1 X10-3 M	BC	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 570 MOL WGT = 737.9 LEAD DODECYL SULFATE								
	54	1.0 X10-3 M	BC	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
	67	9.8 X10-4 M	BB	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 571 MOL WGT = 585.7 MANGANESE DODECYL SULFATE								
	25	1.1 X10-3 M	BC	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
	40	1.1 X10-3 M	BC	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
	40	1.1 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	MIYA	60029	T	L
	40	1.2 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	MIYA	60029	T	L
	54	1.1 X10-3 M	BC	SURFACE TENSION LOG PLOT	MIYA	60029	T	L
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 572 MOL WGT = 589.7 COBALTOUS DODECYL SULFATE								
	30	1.23 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	SATA IWAM	63034	T	3
	40	1.3 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	MIYA	60029	T	L
	40	1.0 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	MIYA	60029	T	L
1. E-1 M CO SO4	30	3. X10-4 M	BE	SURFACE TENSION LOG PLOT	SATA IWAM	63034	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 573 MOL WGT = 594.3 CUPRIC DODECYL SULFATE								
	30	1.20 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	SATA IWAM	63034	T	3
	40	1.3 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	MIYA	60029	T	L
	40	1.2 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	MIYA	60029	T	L
. E 0 CU SO4				GRAPH DATA NOT RETRIEVED	SATA IWAM	63034		R
1. E-1 M CU SO4	30	3. X10-4 M	BE	SURFACE TENSION LOG PLOT	SATA IWAM	63034	T	L
. E 0 NA2 SO4				GRAPH DATA NOT RETRIEVED	SATA IWAM	63034		R
6 ENTRIES FOR COMPOUND								
COMPOUND NO = 574 MOL WGT = 596.1 ZINC DODECYL SULFATE								
	40	1.1 X10-3 M	BG	VISUAL SPCTR CHNGE RHD6	MIYA	60029	T	L
	40	1.1 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	MIYA	60029	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 575 MOL WGT = 589.5 NICKEL DODECYL SULFATE								
	30	1.24 X10-3 M	BB	UNSPECIFIED CONDUCTANCE	SATA IWAM	63034	T	3

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l orkg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	30	1.1 X10-3 M	BE	METHOD NOT CITED	SATA IWAM	63034	T	L
1. E-1 M NI S04	30	3. X10-4 M	BE	SURFACE TENSION LOG PLOT	SATA IWAM	63034	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 576 MOL WGT - 650.4 CUPRIC TETRADECYL SULFATE								
	47	2.5 X10-4 M	BD	SURFACE TENSION LOG PLOT	SATA IWAM	63034	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 577 MOL WGT - 706.5 CUPRIC HEXADECYL SULFATE								
	47	5.8 X10-5 M	BC	SURFACE TENSION LOG PLOT	SATA IWAM	63034	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 578 MOL WGT - 710.6 METHYL /OXYETHYLENE/ 11.9 DECANOATE								
REDUCED POLYDISPERSITY OF HEAD GROUPS								
	27	1.8 X10-3 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA KURI	57020	T	L
	27	1.40 X10-3 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA KURI	57020	T	L
	27	1.45 X10-3 M	EG	FOTOMTR SPCTR CHNG ERTS	NAKA KURI	57020	T	L
	27	1.4 X10-3 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA	58017	T	L
1. E 1 C 0579	27	1.1 X10-3 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA	58017	T	L
2.2 E 1 C 0579	27	8.5 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA	58017	T	L
3. E 1 C 0579	27	7.0 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA	58017	T	L
4. E 1 C 0579	27	5.4 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA	58017	T	L
6. E 1 C 0579	27	4.4 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA	58017	T	L
7. E 1 C 0579	27	3.8 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA	58017	T	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 579 MOL WGT - 765.1 METHYL /OXYETHYLENE/ 12.5 DODECANOATE								
REDUCED POLYDISPERSITY OF HEAD GROUPS								
	27	3.5 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA KURI	57020	T	L
	27	3.4 X10-4 M	EG	FOTOMTR SPCTR CHNG ERTS	NAKA KURI	57020	T	L
	27	2.8 X10-4 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA KURI	57020	T	L
	27	3.4 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA	58017	T	L
0578				SEE CMPD NMBR IN ADDITV	NAKA	58017		X
5 ENTRIES FOR COMPOUND								
COMPOUND NO = 580 MOL WGT - 494.7 METHYL /OXYETHYLENE/ 7.0 DECANOATE								
REDUCED POLYDISPERSITY OF HEAD GROUPS								
	27	1.0 X10-3 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA KURI	57020	T	L
	27	8.0 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA KURI	57020	T	L
	27	9.5 X10-4 M	EG	FOTOMTR SPCTR CHNG ERTS	NAKA KURI	57020	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 581 MOL WGT - 640.1 METHYL /OXYETHYLENE/ 10.3 DECANOATE								
REDUCED POLYDISPERSITY OF HEAD GROUPS								
	27	1.4 X10-3 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA KURI	57020	T	L
	27	1.05 X10-3 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA KURI	57020	T	L
	27	1.15 X10-3 M	EG	FOTOMTR SPCTR CHNG ERTS	NAKA KURI	57020	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 582 MOL WGT - 891.3 METHYL /OXYETHYLENE/ 16.0 DECANOATE								
NATURAL DISTRIBUTION OF HEAD GROUPS								
	27	1.6 X10-3 M	GG	FOTOMTR SPCTR CHNGE PNCN	NAKA KURI	57020	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 583 MOL WGT - 478.7 METHYL /OXYETHYLENE/ 6.0 DODECANOATE								
REDUCED POLYDISPERSITY OF HEAD GROUPS								
	27	1.6 X10-4 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA KURI	57020	T	L
	27	1.5 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA KURI	57020	T	L
	27	2.0 X10-4 M	EG	FOTOMTR SPCTR CHNG ERTS	NAKA KURI	57020	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 584 MOL WGT - 584.5 METHYL /OXYETHYLENE/ 8.4 DODECANOATE								
REDUCED POLYDISPERSITY OF HEAD GROUPS								
	27	2.0 X10-4 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA KURI	57020	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	27	2.7 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA KURI	57020	T	L
	27	2.7 X10-4 M	EG	FOTOMTR SPCTR CHNG ERTS	NAKA KURI	57020	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 585 MOL WGT - 707.9 METHYL /OXYETHYLENE/ 11.2 DODECANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS								
	27	2.5 X10-4 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA KURI	57020	T	L
	27	3.2 X10-4 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA KURI	57020	T	L
	27	3.1 X10-4 M	EG	FOTOMTR SPCTR CHNG ERTS	NAKA KURI	57020	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 586 MOL WGT - 493.1 METHYL /OXYETHYLENE/ 7.6 OCTANOATE REDUCED POLYDISPERSITY OF HEAD GROUPS								
	10	2.00 X10-2 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA INOU	58028	T	L
	11	1.25 X10-2 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA INOU	58028	T	L
	25	9.8 X10-3 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA INOU	58028	T	L
	25	1.48 X10-2 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA INOU	58028	T	L
	40	8.2 X10-3 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA INOU	58028	T	L
	40	1.28 X10-2 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA INOU	58028	T	L
	43	7.8 X10-3 M	EG	FOTOMTR SPCTR CHNGE PNCN	NAKA INOU	58028	T	L
	43	1.20 X10-2 M	ED	FOTOMTR SOLUBLZTN SDN 4	NAKA INOU	58028	T	L
8 ENTRIES FOR COMPOUND								
COMPOUND NO = 587 MOL WGT - 307.5 DECYL DIMETHYLAMMONIOPROPANE SULFONATE								
	30	1.20 X10 0 D	BB	TURBIDITY PLT LITE SCATR	HERR	66013	T	3
		3.902X10-2 M					M	
	30	1.1 X10 0 P	BD	DENSITY	BENJ	66040	T	L
		3.57 X10-2 S					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 588 MOL WGT - 335.6 DODECYL DIMETHYLAMMONIOPROPANE SULFONATE								
	30	1.2 X10-1 D	BC	TURBIDITY PLT LITE SCATR	HERR	66013	T	3
		3.57 X10-3 M					M	
	30	1.2 X10-1 P	BD	DENSITY	BENJ	66040	T	L
		3.57 X10-3 S					M	
2. E-1 M NA CL	30	1.0 X10-1 D	BC	METHOD NOT CITED	HERR	66013	G	3
		2.97 X10-3 M					M	
1. E 0 M NA CL	30	5.8 X10-2 D	BC	METHOD NOT CITED	HERR	66013	G	3
		1.72 X10 3 M					M	
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 589 MOL WGT - 391.7 HEXADECYLDIMETHYLAMMONIOPROPANE SULFONATE								
	30	2.4 X10-3 D	BD	TURBIDITY PLT LITE SCATR	HERR	66013	T	L
		6.12 X10-5 M					M	
	30	1.2 X10-3 D	BD	SURFACE TENSION LOG PLOT	HERR	66013	T	L
		3.06 X10-5 M					M	
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 590 MOL WGT - 299.6 DODECYL DIMETHYLAMMONIOPROPANE CARBOXYLATE								
	30	1.6 X10-1 D	BC	TURBIDITY PLT LITE SCATR	HERR	66013	T	3
		5.34 X10-3 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 591 MOL WGT - 352.5 DODECYL DIMETHYLPHOSPHONIOPROPANE SULFONATE								
	30	8.5 X10-2 D	BC	TURBIDITY PLT LITE SCATR	HERR	66013	T	3
		2.41 X10-3 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 592 MOL WGT - 299.6 DODECYL N-DIETHYL N-BETAINE								
	30	8.4 X10-2 D	XC	METHOD NOT CITED	HERR	66013	T	L
		2.80 X10-3 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 593 MOL WGT - 351.6 DIMETHYL DODECYLAMMONIOPROPANE HYDROXY SULFONATE								
	30	7.0 X10-2 D	BC	METHOD NOT CITED	HERR	66013	T	3
		1.99 X10-3 M					M	
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 594 MOL WGT = 391.7 DODECYL DIPROPYL AMMONIOPROPANE SULFONATE								
	30	7.0 X10-2 D	BC	METHOD NOT CITED	HERR	66013	T	3
		1.78 X10-3 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 595 MOL WGT = 351.6 DODECYL DIMETHYL AMMONIOPROPANE SULFATE								
2. E-1 M NA P-TOLUENE-SO3	30	2.0 X10-2 D	BC	METHOD NOT CITED	HERR	66013	T	L
		5.68 X10-4 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 596 MOL WGT = 353.6 TETRAHYDROANACARDOL AMMONIUM MONOSULFONATE								
	50	8. X10-3 D	XG	VELOCITY OF SOUND	KUPP SURY	65028	T	L
		2.2 X10-4 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 597 MOL WGT = 346.5 SODIUM DODECYL MONO-OXYPROPYL SULFATE								
	UNK	2.69 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	66003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 598 MOL WGT = 374.5 SODIUM TETRADECYL MONO-OXYPROPYL SULFATE								
	UNK	5.8 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	66003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 599 MOL WGT = 432.6 SODIUM TETRADECYL DI-OXYPROPYL SULFATE								
	UNK	3.6 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	66003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 600 MOL WGT = 402.6 SODIUM HEXADECYL MONO-OXYPROPYL SULFATE								
	UNK	1.6 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	66003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 601 MOL WGT = 430.6 SODIUM OCTADECYL MONO-OXYPROPYL SULFATE								
	UNK	7. X10-5 M	CG	VISUAL SPCTR CHNGE PNCN	WEIL STIR	66003	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 602 MOL WGT = 280.4 ALPHA SULFO LAURIC ACID								
	UNK	1.30 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 603 MOL WGT = 344.4 SODIUM PROPYL ALPHA SULFO LAURATE								
	UNK	5.3 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 604 MOL WGT = 344.4 SODIUM METHYL ALPHA SULFO MYRISTATE								
	UNK	2.8 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 605 MOL WGT = 330.4 SODIUM AMYL ALPHAPHOSPHONO PELARGONATE								
	UNK	1.82 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 606 MOL WGT = 344.4 SODIUM AMYL ALPHAPHOSPHONO CAPRATE								
	UNK	9.0 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 607 MOL WGT = 344.4 SODIUM ISOPROPYL ALPHAPHOSPHONO LAURATE								
	UNK	6.68 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 608 MOL WGT = 344.4 SODIUM METHYL ALPHAPHOSPHONO MYRISTATE								
	UNK	7.26 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 609 MOL WGT = 400.5 SODIUM ISOPROPYL ALPHAPHOSPHONO PALMITATE								
	UNK	3.2 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 610 MOL WGT = 400.5 SODIUM METHYL ALPHAPHOSPHONO STEARATE								
	UNK	2.9 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 611 MOL WGT = 238.2 ALPHAPHOSPHONO PELARGONIC ACID								
	UNK	3.02 X10-2 M	CB	SURFACE TENSION UNSPEC	MAUR STIR	64002	LT	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 612 MOL WGT = 252.3 ALPHAPHOSPHONO DECANOIC ACID								
	UNK	1.35 X10-2 M	CB	SURFACE TENSION UNSPEC	MAUR STIR	64002	LT	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 613 MOL WGT = 280.3 ALPHAPHOSPHONO DODECANOIC ACID								
	UNK	2.5 X10-3 M	CC	SURFACE TENSION UNSPEC	MAUR STIR	64002	LT	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 614 MOL WGT = 308.4 ALPHAPHOSPHONO TETRADECANOIC ACID								
	UNK	5.8 X10-4 M	CB	SURFACE TENSION UNSPEC	MAUR STIR	64002	LT	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 615 MOL WGT = 336.5 ALPHAPHOSPHONO HEXADECANOIC ACID								
	UNK	8.9 X10-5 M	CB	SURFACE TENSION UNSPEC	MAUR STIR	64002	LT	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 616 MOL WGT = 274.3 MONOSODIUM ALPHAPHOSPHONO DECANOATE								
	UNK	4.89 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 617 MOL WGT = 302.3 MONOSODIUM ALPHAPHOSPHONO DODECANOATE								
	UNK	1.10 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 618 MOL WGT = 330.4 MONOSODIUM ALPHAPHOSPHONO TETRADECANOATE								
	UNK	2.50 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 619 MOL WGT = 358.4 MONOSODIUM ALPHAPHOSPHONO HEXADECANOATE								
	UNK	5.2 X10-4 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 620 MOL WGT = 324.3 DISODIUM ALPHAPHOSPHONO DODECANOATE								
	UNK	3.06 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 621 MOL WGT = 352.4 DISODIUM ALPHAPHOSPHONO TETRADECANOATE								
	UNK	1.46 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 622 MOL WGT = 380.4 DISODIUM ALPHAPHOSPHONO HEXADECANOATE								
	UNK	6.7 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 623 MOL WGT = 408.5 DISODIUM ALPHAPHOSPHONO OCTADECANOATE								
	UNK	2.9 X10-3 M	CC	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 624 MOL WGT = 374.3 TRISODIUM ALPHAPHOSPHONO TETRADECANOATE								
	UNK	3.02 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 625 MOL WGT = 402.4 TRISODIUM ALPHAPHOSPHONO HEXADECANOATE								
	UNK	1.62 X10-2 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 626 MOL WGT = 430.5 TRISODIUM ALPHAPHOSPHONO OCTADECANOATE								
	UNK	8.2 X10-3 M	CG	VISUAL SPCTR CHNGE PNCN	MAUR STIR	64002	L	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 627 MOL WGT = 332.2 CESIUM DODECANOATE								
	25	2.5 X10-2 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 628 MOL WGT = 266.3 DODECYLAMMONIUM BROMIDE								
	30	1.2 X10-2 M	XG	VISUAL SPCTR CHNGE	KLEV	53010	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 629 MOL WGT = 320.6 POTASSIUM ELAIDATE/TRANS-9-OCTADECENOATE/								
	50	1.5 X10-3 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 630 MOL WGT = 336.6 POTASSIUM RICINOLEATE/12 HYDROXY OLEATE/								
	55	3.6 X10-3 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 631 MOL WGT = 336.6 POTASSIUM RICINELAIDATE/12 HYDROXY ELAIDATE/								
	55	5.5 X10-3 M	XB	REFRACTIVE INDEX	KLEV	53010	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 632 MOL WGT = 295.6 POTASSIUM N-DODECYL BETA-ALANINATE								
	35	2.6 X10-3 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
	50	3.0 X10-3 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 633 MOL WGT = 292.9 N-DODECYL BETA-ALANINE HYDROCHLORIDE								
	30	1.0 X10-2 M	XC	REFRACTIVE INDEX	KLEV	53010	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 634 MOL WGT = 304.5 POTASSIUM DODECYL SULFATE								
	40	7.8 X10-3 M	CB	SPECFC CONDCTNCE GRAPH	MEGU KOND	56020	T	3
	50	5.2 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	RAIS	52016	T	L
6.75 E-2 M NA CL	40	1.5 X10-3 M	CG	FOTOMTR SPCTR CHNGE RHD6	MEGU KOND	56020	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 635 MOL WGT = 256.3 LITHIUM DODECYL SULFONATE								
	50	1.00 X10-2 M	DG	VISUAL SPCTR CHNGE PNCN	RAIS	52016	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 636 MOL WGT = 304.4 SODIUM DODECYL THIOSULFATE								
	50	3.0 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	RAIS	52016	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 637 MOL WGT = 300.4 LITHIUM TETRADECYL SULFATE								
	50	1.64 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	RAIS	52016	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 638 MOL WGT = 328.4 LITHIUM HEXADECYL SULFATE								
	50	2.9 X10-4 M	DG	VISUAL SPCTR CHNGE PNCN	RAIS	52016	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 639 MOL WGT = 290.3 SODIUM UNDECYL THIOSULFATE								
	50	7.0 X10-3 M	DG	VISUAL SPCTR CHNGE PNCN	RAIS	52016	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 640 MOL WGT –		325.5		HEXYL TRIMETHYLAMMONIUM HEXANE SULFATE				
	25	1.1 X10-1 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 641 MOL WGT –		353.6		HEXYL TRIMETHYLAMMONIUM OCTANE SULFATE				
1.00 E 2 I NA BR	25	2.7 X10-2 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 642 MOL WGT –		409.7		OCTYL TRIMETHYLAMMONIUM DECANE SULFATE				
	25	1.9 X10-3 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 643 MOL WGT –		437.8		DODECYL TRIMETHYLAMMONIUM OCTANE SULFATE				
1.00 E 2 I NA BR	25	4.5 X10-4 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 644 MOL WGT –		309.5		HEXYL TRIMETHYLAMMONIUM HEXANE SULFONATE				
	25	2.2 X10-1 M	BC	METHOD NOT CITED	CORK GOOD	66014	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 645 MOL WGT –		268.3		PARA/BETA-D-GLUCOSYL/ETHYLBENZENE				
	25	5.0 X10-1 M	CE	SURFACE TENSION LOG PLOT	HUTC SHEA	64037	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 646 MOL WGT –		282.4		PARA/BETA-D-GLUCOSYL/PROPYL BENZENE				
	25	1.3 X10-1 M	CC	SURFACE TENSION LOG PLOT	HUTC SHEA	64037	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 647 MOL WGT –		296.4		PARA/BETA-D-GLUCOSYL/BUTYLBENZENE				
	25	5. X10-2 M	CD	SURFACE TENSION LOG PLOT	HUTC SHEA	64037	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 648 MOL WGT –		276.4		ALPHA-D-GLUCOSYL OCTANE				
	25	7.9 X10-3 M	CC	SURFACE TENSION LOG PLOT	HUTC SHEA	64037	T	L
	50	7.1 X10-3 M	CC	SURFACE TENSION LOG PLOT	HUTC SHEA	64037	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 650 MOL WGT –		266.4		PARA/BETA-D-XYLOSYL/BUTYL BENZENE				
	25	6. X10-4 M	CD	SURFACE TENSION LOG PLOT	HUTC SHEA	64037	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 651 MOL WGT –		.0		EMASOL 1120 /ALKYL POLYOXYETHYLENE SORBITAN ESTER/				
	25	1.1 X10-2 M	CC	SURFACE TENSION LOG PLOT	HUTC SHEA	64037	T	L
	30	7.5 X10-1 D	HG	VISCOSITY MINIMUM	OKUY TYUZ	54008	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 652 MOL WGT –		.0		EMASOL 1130 /ALKYL POLYOXYETHYLENE SORBITAN ESTER/				
	30	5.0 X10-1 D	HG	VISCOSITY MINIMUM	OKUY TYUZ	54008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 653 MOL WGT –		.0		EMULGEN 120 /ALKYL POLYOXYETHYLENE ETHER/				
	30	3.1 X10-1 D	HG	VISCOSITY MINIMUM	OKUY TYUZ	54008	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 654 MOL WGT –		374.7		OCTADECYL TRIMETHYLAMMONIUM NITRATE				
	25	2.3 X10-4 M	BE	EQUIV CONDCTNCE GRAPH	GRIE KRAU	48010	T	L
5.01 E 0 H METHANOL	25	1.76 X10-4 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
1.227E 1 H METHANOL	25	3.28 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
1.508E 1 H METHANOL	25	4.37 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
1.985E 1 H METHANOL	25	5.93 X10-4 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
2.589E 1 H METHANOL	25	1.10 X10-3 M	BA	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	2
3.463E 1 H METHANOL	25	3.03 X10-3 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
7 ENTRIES FOR COMPOUND								

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 655 MOL WGT = 368.1 OCTADECYL PYRIDINIUM CHLORIDE								
	25	2.4 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	GRIE KRAU	48010	T	L
	25	2.40 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
	25	2.54 X10-4 M	BC	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 656 MOL WGT = 394.7 OCTADECYL PYRIDINIUM NITRATE								
	25	1.28 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	T	3
2.0 E 1 H METHANOL	25	5.76 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 657 MOL WGT = 412.6 OCTADECYL PYRIDINIUM BROMIDE								
2.0 E 1 H METHANOL	25	6.10 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	EVER KRAU	48028	P	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 658 MOL WGT = 440.6 OCTADECYL TRIMETHYLAMMONIUM BROMATE								
	25	3.1 X10-4 M	BG	EQUIV COND 1ST DEVIATION	GRIE KRAU	48010	T	L
	25	3.31 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	GRIE KRAU	48010	P	3
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 659 MOL WGT = 357.7 OCTADECYL TRIMETHYLAMMONIUM FORMATE								
	25	4.4 X10-4 M	BC	EQUIV CONDCTNCE GRAPH	GRIE KRAU	48010	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 660 MOL WGT = 479.5 HEXADECYL PYRIDINIUM IODATE								
	25	1.6 X10-3 M	BG	EQUIV CONDCTNCE MAXIMUM	BROW GRIE	49014	T	L
	25	9.9 X10-4 M	BG	EQUIV COND MAX BEGINING	BROW GRIE	49014	T	L
7.9 E 0 H TERTIARY BUTANOL	25	1.35 X10-4 M	BG	EQUIV COND MAX BEGINING	BROW GRIE	49014	T	L
7.9 E 0 H TERTIARY BUTANOL	25	9. X10-4 M	BG	EQUIV CONDCTNCE MAXIMUM	BROW GRIE	49014	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 661 MOL WGT = 507.6 OCTADECYL PYRIDINIUM IODATE								
	25	5. X10-4 M	BG	EQUIV CONDCTNCE MAXIMUM	BROW GRIE	49014	T	L
	25	9. X10-5 M	BG	EQUIV COND MAX BEGINING	BROW GRIE	49014	T	L
1.62 E 1 H METHANOL	25	8. X10-4 M	BG	EQUIV CONDCTNCE MAXIMUM	BROW GRIE	49014	T	L
1.62 E 1 H METHANOL	25	2.9 X10-4 M	BG	EQUIV COND MAX BEGINING	BROW GRIE	49014	T	L
4 ENTRIES FOR COMPOUND								
COMPOUND NO = 662 MOL WGT = 482.7 OCTADECYL TRIETHYLAMMONIUM BROMATE								
	25	2.5 X10-4 M	BC	EQUIV CONDCTNCE GRAPH	MCDO KRAU	51009	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 663 MOL WGT = 524.8 OCTADECYL TRIPROPYLAMMONIUM BROMATE								
	25	1.25 X10-4 M	BG	EQUIV COND MAX BEGINING	MCDO KRAU	51009	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 664 MOL WGT = 566.9 OCTADECYL TRIBUTYLAMMONIUM BROMATE								
	25	5.3 X10-5 M	BG	EQUIV COND MAX BEGINING	MCDO KRAU	51009	TK	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 665 MOL WGT = 608.9 OCTADECYL TRIAMYLAMMONIUM BROMATE								
	25	1.6 X10-5 M	BG	EQUIV COND MAX BEGINING	MCDO KRAU	51009	TK	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 666 MOL WGT = 538.8 HEXADECYL TRIBUTYLAMMONIUM BROMATE								
	25	3.3 X10-4 M	BG	EQUIV COND MAX BEGINING	MCDO KRAU	51009	TK	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 667 MOL WGT = 713.4 OCTADECYL TRIMETHYLAMMONIUM OXALATE								
	25	6.4 X10-5 M	BE	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	T	L
9.91 E 0 H ACETONE	25	1.44 X10-4 M	BG	EQUIV COND 1ST DEVIATION	YOUN GRIE	49017	T	L
9.91 E 0 H ACETONE	25	1.61 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
1.39 E 1 H ACETONE	25	2.56 X10-4 M	BG	EQUIV COND 1ST DEVIATION	YOUN GRIE	49017	T	L
1.39 E 1 H ACETONE	25	2.56 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
2.07 E 1 H ACETONE	25	3.29 X10-4 M	BG	EQUIV COND 1ST DEVIATION	YOUN GRIE	49017	T	L

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
2.07 E 1 H ACETONE	25	6.50 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
2.88 E 1 H ACETONE	25	1.30 X10-3 M	BG	EQUIV COND 1ST DEVIATION	YOUN GRIE	49017	T	L
2.88 E 1 H ACETONE	25	1.94 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
2.07 E 1 H METHANOL	25	2.50 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
2.07 E 1 H METHANOL	25	2.70 X10-4 M	BE	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	T	L
3.02 E 1 H METHANOL	25	6.8 X10-4 M	BE	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	T	L
3.02 E 1 H METHANOL	25	6.25 X10-4 M	BB	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
4.01 E 1 H METHANOL	25	1.76 X10-3 M	BE	EQUIV COND 1ST DEVIATION	YOUN GRIE	49017	T	L
4.01 E 1 H METHANOL	25	2.20 X10-3 M	BC	EQUIV CONDCTNCE GRAPH	YOUN GRIE	49017	P	3
15 ENTRIES FOR COMPOUND								
COMPOUND NO = 668 MOL WGT - 292.5 DIPOTASSIUM OCTYL MALONATE								
	20	3.0 X10-1 M	BC	SURFACE TENSION UNSPEC	SHIN	55007	T	3
	25	3.5 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	T	L
7.6 E-1 K K ION	25	3.2 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
7.7 E-1 K K ION	25	3.0 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
8.2 E-1 K K ION	25	2.8 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
9.2 E-1 K K ION	25	2.6 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
1.00 E 0 K K ION	25	2.3 X10-1 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 669 MOL WGT - 320.5 DIPOTASSIUM DECYL MALONATE								
	25		BG	THEORETICALLY ESTIMATED	SHIN	55007	T	R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 670 MOL WGT - 348.6 DIPOTASSIUM DODECYL MALONATE								
	20	4.8 X10-2 M	BC	SURFACE TENSION UNSPEC	SHIN	55007	T	L
	20	4.8 X10-2 M	BG	FOTOMTR SPCTR CHNGE PNCN	SHIN	55007	T	L
	25	4.8 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	T	L
	25	5.0 X10-2 M	BB	FOTOMTR SOLUBLZTN 2NPA	SHIN	55007	T	3
1.10 E-1 K K ION	25	4.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
1.16 E-1 K K ION	25	3.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
1.31 E-1 K K ION	25	3.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
1.58 E-1 K K ION	25	2.6 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
1.89 E-1 K K ION	25	2.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
2.17 E-1 K K ION	25	1.9 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
2.56 E-1 K K ION	25	1.6 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
3.08 E-1 K K ION	25	1.3 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
3.48 E-1 K K ION	25	1.1 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
13 ENTRIES FOR COMPOUND								
COMPOUND NO = 671 MOL WGT - 376.7 DIPOTASSIUM TETRADECYL MALONATE								
	20	1.9 X10-2 M	BC	SURFACE TENSION UNSPEC	SHIN	55007	T	L
	25	1.7 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	T	L
	25	1.8 X10-2 M	BC	FOTOMTR SOLUBLZTN 2NPA	SHIN	55007	T	3
3.7 E-2 K K ION	25	1.5 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
4.0 E-2 K K ION	25	1.4 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
4.5 E-2 K K ION	25	1.2 X10-2 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
5.4 E-2 K K ION	25	9.6 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
7.0 E-2 K K ION	25	7.1 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
9.7 E-2 K K ION	25	5.4 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
1.23 E-1 K K ION	25	4.4 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
10 ENTRIES FOR COMPOUND								
COMPOUND NO = 672 MOL WGT - 404.7 DIPOTASSIUM HEXADECYL MALONATE								
	20	9. X10-3 M	BD	SURFACE TENSION UNSPEC	SHIN	55007	T	L
	25	6.3 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	T	L
F.48 E-2 K K ION	25	5.5 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
1.86 E-2 K K ION	25	4.4 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
2.23 E-2 K K ION	25	3.2 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
2.97 E-2 K K ION	25	2.2 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
4.75 E-2 K K ION	25	1.5 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	G	L
7 ENTRIES FOR COMPOUND								
COMPOUND NO = 673 MOL WGT - 432.8 DIPOTASSIUM OCTADECYL MALONATE								
	25	2.3 X10-3 M	BG	VISUAL SPCTR CHNGE PNCN	SHIN	55007	T	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 674 MOL WGT = 470.7 DIISOBUTYL BENZENE/OXYETHYLENE/6 ALCOHOL (DB) BRANCHED CHAIN, NATURAL OE DISTRIBUTION								
	20	1.8 X10-3 M	HG	VISUAL SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
	20	1.4 X10-3 M	HG	FOTOMTR SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 675 MOL WGT = 647.0 OCTYL BENZENE /OXYETHYLENE/10 ALCOHOL NATURAL DISTRIBUTION OF HEAD GROUPS								
	20	4.9 X10-4 M	HG	VISUAL SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
	20	3.8 X10-4 M	HG	FOTOMTR SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 676 MOL WGT = 292.3 SODIUM 1,1,3,3-TETRAMETHYL BUTYL BENZENE SULFONATE								
	20	8.4 X10-3 M	XG	VISUAL SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
	20	1.00 X10-2 M	XG	VISUAL SPCTR CHNGE RHD6	TAUB KONS	60033	T	L
	40	8.4 X10-3 M	XC	UNSPECIFIED CONDUCTANCE	TAUB KONS	60033	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 677 MOL WGT = 404.6 SODIUM DI-/1,1,3,3-TETRAMETHYL BUTYL/BENZENESULFONATE								
	20	1.0 X10-3 M	XG	VISUAL SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
	20	1.0 X10-3 M	XG	VISUAL SPCTR CHNGE RHD6	TAUB KONS	60033	T	L
	40	9. X10-4 M	XD	UNSPECIFIED CONDUCTANCE	TAUB KONS	60033	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 678 MOL WGT = 334.4 SODIUM 1,1-DIMETHYLNONYL BENZENE SULFONATE								
	20	3.0 X10-3 M	XG	VISUAL SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
	20	2.4 X10-3 M	XG	VISUAL SPCTR CHNGE RHD6	TAUB KONS	60033	T	L
	40	3.3 X10-3 M	XC	UNSPECIFIED CONDUCTANCE	TAUB KONS	60033	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 679 MOL WGT = 334.4 SODIUM 3-BUTYL HEPTYL BENZENE SULFONATE								
	20	2.7 X10-3 M	XG	VISUAL SPCTR CHNGE RHD6	TAUB KONS	60033	T	L
	20	3.3 X10-3 M	XG	VISUAL SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
	40	3.3 X10-3 M	XC	UNSPECIFIED CONDUCTANCE	TAUB KONS	60033	T	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 680 MOL WGT = 348.5 SODIUM 2-PROPYL-4-METHYL-OCTYL BENZENE SULFONATE								
	20	1.7 X10-3 M	XG	VISUAL SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
	20	1.7 X10-3 M	XG	VISUAL SPCTR CHNGE RHD6	TAUB KONS	60033	T	L
	40	1.6 X10-3 M	XD	UNSPECIFIED CONDUCTANCE	TAUB KONS	60033	T	L
1.33 E 2 Q NA2 S04 1.33 E 2 Q NA2 SI03 META 1.33 E 2 Q NA2 C03	20	1.1 X10-3 M	XG	VISUAL SPCTR CHNGE PNCN	TAUB KONS	60033	T	L
1.33 E 2 Q NA2 S04 1.33 E 2 Q NA2 SI03 META 1.33 E 2 Q NA2 C03	20	1.1 X10-3 M	XG	VISUAL SPCTR CHNGE RHD6	TAUB KONS	60033	T	L
1.33 E 2 Q NA2 S04 1.33 E 2 Q NA2 SI03 META 1.33 E 2 Q NA2 C03	40	1.1 X10-3 M	XD	UNSPECIFIED CONDUCTANCE	TAUB KONS	60033	T	L
6 ENTRIES FOR COMPOUND								
COMPOUND NO = 681 MOL WGT = 292.3 SODIUM DIBUTYL BENZENE SULFONATE								
	UNK	1.6 X10-4 M	CD	TURBIDITY PLT LITE SCATR	YURZ KUCH	52018	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 682 MOL WGT = 342.4 SODIUM DIBUTYL NAPHTHALENE SULFONATE /NEKAL/								
	UNK	2.9 X10-4 M	HC	TURBIDITY PLT LITE SCATR	YURZ KUCH	52018	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 683 MOL WGT = 460.7 SODIUM EICOSYLBENZENE SULFONATE								
	UNK	1.7 X10-5 M	HE	TURBIDITY PLT LITE SCATR	YURZ KUCH	52018	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 684 MOL WGT = 178.3 HEXYL SULFINYLETHANOL								
	25	2.5 X10-1 W	BD	VAPR PRESURE LOWERING	CORK GOOD	66015	E	L
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 685 MOL WGT = 192.3 HEXYL SULFINYLPROPANOL								
	25	2.5 X10-1 W	BD	VAPR PRESURE LOWERING	CORK GOOD	66015	E	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 686 MOL WGT = 206.3 HEXYL SULFINYLBUTANOL								
	25	2.1 X10-1 W	BD	VAPR PRESURE LOWERING	CORK GOOD	66015	E	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 687 MOL WGT = 220.4 HEXYL SULFINYLPENTANOL								
	25	1.8 X10-1 W	BD	VAPR PRESURE LOWERING	CORK GOOD	66015	E	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 688 MOL WGT = 206.3 OCTYL SULFINYLETHANOL								
	25	2.3 X10-2 W	BD	SURFACE TENSION LOG PLOT	CORK GOOD	66015	E	L
	40	2.1 X10-2 W	BD	SURFACE TENSION LOG PLOT	CORK GOOD	66015	E	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 689 MOL WGT = 220.4 OCTYL SULFINYLPROPANOL								
	25	2.0 X10-2 W	BD	SURFACE TENSION LOG PLOT	CORK GOOD	66015	E	L
	40	1.8 X10-2 W	BD	SURFACE TENSION LOG PLOT	CORK GOOD	66015	E	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 690 MOL WGT = 234.4 OCTYL SULFINYLBUTANOL								
	25	2.0 X10-2 W	BD	SURFACE TENSION LOG PLOT	CORK GOOD	66015	E	L
	40	1.8 X10-2 W	BD	SURFACE TENSION LOG PLOT	CORK GOOD	66015	E	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 691 MOL WGT = 176.3 OCTYL METHYL SULFOXIDE								
	25	2.3 X10-2 W	BD	SURFACE TENSION LOG PLOT	CORK GOOD	66015	E	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 692 MOL WGT = 234.4 DECYL SULFINYLETHANOL								
	25	1.6 X10-3 W	BD	SURFACE TENSION LOG PLOT	CORK GOOD	66015	E	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 693 MOL WGT = 354.1 N-CETYL 2-METHYL PYRIDINIUM CHLORIDE								
				QUESTIONABLE CRITERION	ANGE NICO	61029		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 694 MOL WGT = 354.1 N-CETYL 3-METHYL PYRIDINIUM CHLORIDE								
				QUESTIONABLE CRITERION	ANGE NICO	61029		R
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 695 MOL WGT = 354.1 N-CETYL 4-METHYL PYRIDINIUM CHLORIDE								
	20	7. X10-2 D	GE	KRAFFT POINT SOLUBILITY	ANGE NICO	61029	T	L
		1.9 X10-3 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 696 MOL WGT = 445.5 N-CETYL 2-METHYL PYRIDINIUM IODIDE								
	65	4. X10-3 D	GE	KRAFFT POINT SOLUBILITY	ANGE NICO	61029	T	L
		8.9 X10-5 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 697 MOL WGT = 445.5 N-CETYL-3-METHYL PYRIDINIUM IODIDE								
	34	2. X10-3 D	GE	KRAFFT POINT SOLUBILITY	ANGE NICO	61029	T	L
		4.4 X10-5 M					M	
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 698 MOL WGT = 445.5 N-CETYL-4-METHYL PYRIDINIUM IODIDE								
	30	8. X10-2 D	GE	KRAFFT POINT SOLUBILITY	ANGE NICO	61029	T	L
		1.7 X10-3 M					M	
1 ENTRIES FOR COMPOUND								

Concentration units: A—mol %; B—vol % solvent; C—mol % surfactant mixture; D—wt/vol %; E—% saturation; H—wt % solvent; I—mol % surfactant; K—normality counterions; M—molar; N—normal; P—wt %; Q—wt % surfactant; R—varied; S—mol/kg; T—wt % surfactant mixture; U—mol/(l or kg); W—molal; Y—atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
COMPOUND NO = 699 MOL WGT –		110.1		SODIUM BUTYRATE				
	UNK	3.5 X10 0 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 700 MOL WGT –		116.2		HEXANOIC ACID				
	UNK	1. X10-1 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 701 MOL WGT –		352.2		POTASSIUM PERFLUROHEXANOATE				
	UNK	5. X10-1 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 702 MOL WGT –		552.2		POTASSIUM PERFLUORODECANOATE				
	UNK	9. X10-4 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 703 MOL WGT –		194.3		4-HEXYL RESORCINOL				
	UNK	4. X10-3 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
E 0 PH OF SOLUTION	UNK			GRAPH DATA NOT RETRIEVED	KLEV RAIS	54004		R
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 704 MOL WGT –		232.4		POTASSIUM 4-HEXYL RESORCINOLATE				
	UNK	3.8 X10-2 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 705 MOL WGT –		266.4		DODECYL SULFURIC ACID				
	UNK	6.2 X10-3 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 706 MOL WGT –		185.1		PERFLUORO PROPYLAMINE				
	UNK	1.32 X10-1 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 707 MOL WGT –		221.5		PERFLUORO PROPYLAMINE HYDROCHLORIDE				
	UNK	1.1 X10 0 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 708 MOL WGT –		101.2		HEXYLAMINE				
	UNK	0.4 X10-2 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 709 MOL WGT –		137.7		HEXYLAMINE HYDROCHLORIDE				
	UNK	9. X10-1 M	XG	METHOD NOT CITED	KLEV RAIS	54004	T	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 710 MOL WGT –		190.3		OCTYL DIMETHYL PHOSPHINE OXIDE				
	30	7.7 X10-1 D	BB	TURBIDITY PLT LITE SCATR	HERR BRUS	66039	T	3
		4.04 X10-2 M					M	
	30	7.9 X10-1 D	BB	SURFACE TENSION LOG PLOT	HERR BRUS	66039	T	L
		4.15 X10-2 M					M	
	30	8. X10-1 P	BD	DENSITY	BENJ	66040	T	L
		4.2 X10-2 S					M	
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 711 MOL WGT –		218.4		DECYL DIMETHYL PHOSPHINE OXIDE				
	30	1.0 X10-1 D	BD	TURBIDITY PLT LITE SCATR	HERR BRUS	66039	T	L
		4.57 X10-3 M					M	
	30	8.2 X10-2 D	BB	SURFACE TENSION LOG PLOT	HERR BRUS	66039	T	L
		3.75 X10-3 M					M	
	30	7. X10-2 P	BD	DENSITY	BENJ	66040	T	L
		3.2 X10-3 S					M	
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 712 MOL WGT –		246.4		DODECYL DIMETHYL PHOSPHINE OXIDE				
	1	2.0 X10-2 D	BC	TURBIDITY PLT LITE SCATR	HERR BRUS	66039	T	3
		8.11 X10-4 M					M	
	30	1.4 X10-2 D	BD	TURBIDITY PLT LITE SCATR	HERR BRUS	66039	T	3
		5.68 X10-4 M					M	

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

Additives	Temp. °C	CMC	Qual. Mat. Meth.	Method	Authors	Reference	Source	Evaluation
	30	8. X10-3 D 3.2 X10-4 M	BD	SURFACE TENSION LOG PLOT	HERR BRUS	66039	T M	L
3 ENTRIES FOR COMPOUND								
COMPOUND NO = 713 MOL WGT – 215.4 UNDECYL DIMETHYL AMINE OXIDE								
	30	1.3 X10-1 P 6.03 X10-3 S	BD	DENSITY	BENJ	66040	T M	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 714 MOL WGT – 145.3 HEXYL DIMETHYL AMINE OXIDE								
	UNK	3.0 X10 1 P 2.06 X10 0 S	BE	METHOD NOT CITED	BENJ	66040	T M	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 715 MOL WGT – 159.3 HEPTYL DIMETHYL AMINE OXIDE								
	UNK	1.0 X10 1 P 6.27 X10-1 S	BE	METHOD NOT CITED	BENJ	66040	T M	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 716 MOL WGT – 891.3 DODECYL /OXYETHYLENE/16 ALCOHOL REDUCED POLYDISPERSITY OF HEAD GROUPS								
	25	2.205X10-2 D 2.473X10-4 M	EE	FOTOMTR SOLUBLZTN OROT	SCHO	66036	T M	L
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 717 MOL WGT – 378.4 DODECYLQUINOLINIUM BROMIDE								
	25	4.80 X10-3 M	BB	SURFACE TENSION LOG PLOT	FEW GILB	58031	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 718 MOL WGT – 395.7 TETRAETHYLAMMONIUM DODECYL SULFATE								
	30	4.5 X10-3 M	CB	EQUIV CONDCTNCE GRAPH	MEGU KOND	59026	T	L
	30	4.1 X10-3 M	CG	FOTOMTR SPCTR CHNGE RHD6	MEGU KOND	59026	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 719 MOL WGT – 507.9 TETRABUTYLAMMONIUM DODECYL SULFATE								
	30	1.3 X10-3 M	CC	EQUIV CONDCTNCE GRAPH	MEGU KOND	59026	T	L
	30	1.0 X10-3 M	CG	FOTOMTR SPECTR CHNGE RHD6	MEGU KOND	59026	T	L
2 ENTRIES FOR COMPOUND								
COMPOUND NO = 720 MOL WGT – 733.2 1-6-DITRIMETHYLAMMONIUM-HEXANE/DODECYL SULFATE/2								
	30	9.6 X10-4 M	CB	EQUIV CONDCTNCE GRAPH	MEGU KOND	59026	T	3
1 ENTRIES FOR COMPOUND								
COMPOUND NO = 721 MOL WGT — 1,542.1 NONYL BENZENE /OXYETHYLENE/30 ALCOHOL BRANCHED CHAIN REDUCED OE DISTRIBUTION								
	25	4.22 X10-2 D 2.736X10-4 M	EC	ULTRAFILTRATION	SCHO	64004	T M	L
1 ENTRIES FOR COMPOUND								

Concentration units: A – mol %; B – vol % solvent; C – mol % surfactant mixture; D – wt/vol %; E – % saturation; H – wt % solvent; I – mol % surfactant; K – normality counterions; M – molar; N – normal; P – wt %; Q – wt % surfactant; R – varied; S – mol/kg; T – wt % surfactant mixture; U – mol/(l or kg); W – molal; Y – atm. Details on page 222.

(CH3) N BR
99
(CH3)4 N CL
116 321 324
(CH3)4 N I
1
(C2H5)4 N BR
99
(C3H7)4 N BR /NORMAL
99
(C4H9)(CH3)3 N I
1
(C4H9)4 N BR /NORMAL
99
ACETIC ACID
38 482
ACETONE
38 667
ACETONITRILE
38
AG NO3
1 23
AL CL3
1
BA CL2
38 95 321
BENZENE
38 40 44 90 91 92 179 182 183
BROMPHENOL BLUE
99
BUTANOL-1
21 38 44 90 91 92 95
BZL*1C6H5 /CH3/2 N I
CA ACETATE
38
CA BR2
97
CA CL2
1 18 24 132 163 164 165 166 205 206 321
CA FORMATE
38
CA NO3
321
CALGON (NA HXMTP*)
273
CAPRYLAMIDE
171
CARBOXYMETHYLCELLULO
273
CL- ION
38
CO SO4
572
CS CL
1
CS2 SO4
1
CU SO4
1 572 573
CYCLOHEXANE
38
C12 CLORHYDRIN GLET*
171
C12 DIETHANOLAMIDE
139
C12 ETHANOL AMIDE
171 172 173 174
C12 GLYCEROL ETHER
171
C12 SULFOLANYLAMIDE
171
C6H5 (CH3)3 N OH
277
C8 GLYCEROL ETHER
171 172
DC ANTIFOAM A (PMS*)
451
DECANOL-1
38 44 90 91 92 171 201 202 204 263 273 451
DEUTERIUM OXIDE
1 3
DIOXANE
1 4 5 38 95 166 320 322 323
ETHANOL
1 21 38 44 90 91 92 95 166 263
ETHYLENE GLYCOL
38 95
FORMIC ACID
38
GLYCEROL
38 245
GUANIDINIUM CL
21 320 322 323
GUANIDINIUM CO3
21
H BR
99 293
H CL
1 22 38 168 245 320 321 322 323 417 482
H CLO4
206 528
H NO3
38 97 99 168 206
HEPTANOL-1
38 44 90 91 92
HEXANOL-1
1 3 38 44 90 91 92 273
HEXYL AMMONIUM CL
38
H2 SO4
491 529 530 531 532 533 534
H3 PO4
460
IONIC STRENGTH
1 206
ISOC5 GLYCEROL ETHER
171
K BR
91 93 94 95 96 97 98 99 100 101 102 290
427
K CL
1 38 41 44 90 91 92 97 99 206 278 296
297 321 350 351 353 399 417 550 551 552 553
K CNS
206 278
K H SO4
531 534
K I
91 290 376 550 551 552 553
K IO3
290
K NO3
40 91 97 99 206 321 456 550 551 552 553
K OH
1 44 90 91 92 97 99 188 206 296 297 417
K+ ION
91 185 668 670 671 672
K2 SO4
1 90 91 290
K4 P207 PYRO
91
LA BR3
97
LA CL3
38
LAURYL ALCOHOL
1 38 263 451
LA2 (SO4)3
308
LI BR
290
LI CL
1 116 321 324
LI NO3
321
LI2 SO4
1
METHANOL
21 38 95 270 427 654 656 657
661 667
MG (NO3)2
321
MG CL2
1 321

MG SO4
308 568
N-C10 GLYCEROL ETHER
1 171 172 175 176 177 178 179
N-C10 SULFOLANYL ETH
171
N-DECANE
201 202 204
N-HEPTANE
1
N-HEXANE
38 91
N-3SOA*
171
NA ACETATE
38 482
NA BR
1 41 97 98 102 127 128 129
130 131 168 278 290 291 293 321
346 347 643
NA BR03
129 168 321
NA CITRATE
163 164 165 166 321
NA CL
1 2 3 4 5 18 21 22
24 38 41 42 91 93 95 97
111 116 132 133 134 135 136 137
139 156 163 164 165 166 167 168
169 179 182 205 206 258 273 274
278 290 295 311 321 324 329 337
345 418 419 432 433 434 459 462
482 492 598 634
NA CL04
3
NA CNS
116 321 324
NA F
1 130 321
NA HC02 FORMATE
38 128
NA HC03
273
NA I
1 168 278 321
NA I03
127 168 321
NA N03
1 23 24 38 131 273 278
NA OH
132 139 168 263 273 298 300 321
448
NA P-TOLUENE-S03
295
NA P04
139 273
NA SUCCINATE
38
NA+ ION
1
NA14 P12037 POLY
139
NA2 B407
273
NA2 C03
139 273 680
NA2 SI03 META
91 139 273 680
NA2 S04
1 18 91 116 132 163 164 165
166 171 182 273 278 307 308 309
321 324 573 680
NA2 S203 THIOSULF
376
NA4 P207 PYRO
1 91 139 149 273 278
NA5 P3010 TRIPOLY
1 139 141 142
NA53 P500154 POLY
139
NH3
97 99 206
NH4 BR
99
NH4 CL
97 99 206
NI S04
575
NITROBENZENE
274
NONANOL-1
44 90 91 92
OCTANOL-1
1 44 90 91 92 273
OLEIC ACID
263
PENTADECANOL V. BR*
1
PENTAMINE
1
PENTANOL-1
1 245
PH OF SOLUTION
1 21 38 91 92 99 185 206
263 273 298 299 320 322 323 416
417 485 487 529 703
PHENOL
97
PHENYL (CH3)3 N I
1
PINACYANOL CL (DYE)
1 44 91 188 296
PRESSURE
1 38 41 95 97 279
PROPANOL-1
1 21 38 44 90 91 92 95
PROPANOL-2
1 38
PROPIONIC ACID
1
RB BR
290
RHODAMINE 6GPC
1 111
SI02/NA20=1.60
91 273
SI02/NA20=2.46
273
SI02/NA20=3.93
273
SR CL2
321
SUCCINIC ACID
38
SUCROSE
1 166
TARTARIC ACID
38
TERTIARY BUTANOL
38 660
TETRADECANOL-2
171
TMCHCGLET*
171
TRIBUTYL PHOSPHATE
1 263 451
TRIETHYL CARBINOL
38
UNDECANOL-1
38
UREA
1 3 5 21 97 111 112 113
114 115 116 117 320 321 322 323
376
1,10 DECANE DIOL
273
1,2 DECANE DIOL
273
2-ETHYL HEXANOL
451
3-METHYL BUTANOL-1
44 90 91 92
3,5(CH3)2 C6H3 GLET*
1

(CH3) 4 N BR
65012
(CH3) 4 N CL
62019 64020
(CH3) 4 N I
53012
(C2H5) 4 N BR
65012
(C3H7) 4 N BR /NORMAL
65012
(C4H9) CH3 3 N I
53012
(C4H9) 4 N BR /NORMAL
65012
ACETIC ACID
49008
ACETONE
48023 49017
ACETONITRILE
48023
AG NO3
62006
AL CL3
51005
BA CL2
47010 49008 62019
BENZENE
48021 49006 50003 55008
BROMPHENOL BLUE
51008
BUTANOL-1
49006 50008 55004 66012
BZL* C6H5 /CH3/2 N I
53012
CA ACETATE
49008
CA BR2
64043
CA CL2
51005 61008 62002 62011 62019 63008
CA FORMATE
49008
CA NO3
62019
CALGON (NA HXMTP*)
48024
CAPRYLAMIDE
57014
CARBOXYMETHYLCELLULO
48024
CL- ION
54013
CO SO4
63034
CS CL
53012
CS2 SO4
53012
CU SO4
63034
CYCLOHEXANE
48021
C12 CLORHYDRIN GLET*
57014
C12 DIETHANOLAMIDE
58008
C12 ETHANOL AMIDE
57014
C12 GLYCEROL ETHER
57014
C12 SULFOLANYLAMIDE
57014
C6H5 (CH3) 3 N OH
48009
C8 GLYCEROL ETHER
57014
DC ANTIFOAM A (PMS*)
57031
DECANOL-1
50008 55004 56018 57014 57031 60006 62009
DEUTERIUM OXIDE
66002
DIOXANE
46004 49006 65011 65013 65020
ETHANOL
40004 46001 48023 49006 50008 55004 57013
58007 65013 66012
ETHYLENE GLYCOL
46004 49006
FORMIC ACID
49008
GLYCEROL
36002 46004
GUANIDINIUM CL
65011 66012
GUANIDINIUM CO3
66012
H BR
64006 65012
H CL
36002 49008 54010 56014 57021 62005 62019
64016 65011
H CLO4
50012 65019
H NO3
49008 50012 56014
HEPTANOL-1
50008 55004 56018
HEXANOL-1
50008 55004 56018 59018
HEXYL AMMONIUM CL
48020
H2 SO4
65019 65025
IONIC STRENGTH
65030
ISOC5 GLYCEROL ETHER
57014
K BR
48005 49001 55009 59010 59024 64043 66028
K CL
47010 48005 49005 50008 50012 51005 52017
53002 54010 56001 56002 62019 62037 65026
66023 66028
K CNS
50012 51005
K H SO4
65025
K I
48005 59024 60015 66006 66023 66028
K IO3
59024
K NO3
48005 48025 49005 50012 61026 62019 62037
64011 66023
K OH
48004 48009 48011 48012 49005 50012 51004
53006 54003 54005 54010 55004 56001 59008
59012 60002 61025 65012
K+ION
54013 55007
K2 SO4
47010 48005 49005 53012 59024 62037

K4 P207 PYRO
48005
LA BR3
64043
LA CL3
47010
LAURYL ALCOHOL
49014 57014 57031 58023
LA2(S04)3
64043
LI BR
66028
LI CL
56002 62019 64020
LI N03
62019
LI2 S04
53012
METHANOL
48010 48023 48028 49006 49008 49014 49017
66012
MG (N03)2
62019
MG CL2
51005 62019
MG S04
63034 64043
N-C10 GLYCEROL ETHER
57014
N-C10 SULFOLANYL ETH
57014
N-DECANE
60006 62009
N-HEPTANE
56001
N-HEXANE
48011 48021
N-3SOA*
57014
NA ACETATE
49008
NA BR
51005 56014 62019 63014 63016 63026 64001
64006 64017 64047 65005 66014 66025
NA BR03
56014 62019 63016
NA CITRATE
62002 62019
NA CL
38001 39007 47010 48024 49005 49008 51005
53005 55003 55005 55021 56002 56011 56014
56020 57006 58009 58020 59001 59009 59024
60005 60011 60025 60027 60028 61005 61008
61030 62002 62004 62005 62009 62010 62011
62019 62020 63008 63026 64020 64047 65018
66010 66013 66027 66036
NA CL04
62040
NA CNS
62019 63026 64020
NA F
62019 63016 64047
NA HC02 FORMATE
49008 63016
NA I
51005 56014 62019 64047
NA I03
63016
NA N03
49008 51005 56014 61026 61030 62006 62019
63016
NA OH
38006 48011 48024 51004 53004 56014 59009
62019 62038 63008
NA P-TOLUENE-S03
66013
NA P04
48024 59009 62038
NA SUCCINATE
49008
NA14 P12037 POLY
59009
NA2 B407
48024 62038
NA2 C03
48024 59009 60033 62038
NA2 SI03 META
48024 59009 60033
NA2 S04
47010 51005 53012 57014 60033 61008 61030
62002 62019 62037 63008 63026 63034 64020
64043 65019
NA2 S203 TH10SULF
63032
NA4 P207 PYRO
47010 48024 51005 59009
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OCTANOL-1
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ADCOCK WA	J AM CHEM SOC	71	2835	1949	49015
ADDERSON JE	J COLLOID SCI	19	495	1964	64050
ADDISON CC	TRANS FARADAY SOC	33	851	1937	37003
	TRANS FARADAY SOC	34	372	1938	38006
	J CHEM SOC		03229	1956	56019
ALEXANDER AE	J PHYS CHEM	66	1839	1962	62035
ANACKER EW	J PHYS COLLOID CHEM	55	644	1951	51001
	J COLLOID SCI	8	402	1953	53002
	J PHYS CHEM	62	41	1958	58009
	J PHYS CHEM	63	1022	1959	59011
	J CHEM EDUC	37	36	1960	60005
	J PHYS CHEM	67	1713	1963	63016
	J PHYS CHEM	68	81	1964	64017
	J PHYS CHEM	68	3490	1964	64018
ANDRUS RW	J PHYS CHEM	69	2357	1965	65030
ANGELESCU E.	REV CHIM AC.REP POP.ROUM.	6	309	1961	61029
ARAI H	KOGYO KAGAKU ZASSHI	68	1090	1965	65017
ARISHI S	J SCI HIROSHIMA UNIV, SER A-II	22	57	1958	58023
ARKIN L	J AM CHEM SOC	70	3965	1948	48017
	J COLLOID SCI	4	537	1949	49012
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ARRINGTON CH	J PHYS CHEM	57	247	1953	53003
ASCOLI F	NATURE	184	1482	1959	59014
	J MOL BIOL	3	202	1961	61023
	J PHYS CHEM	65	1991	1961	61024
	PONTIF ACAD SCIENTIAR. SCRIPTA VAR.	22	/12/1	1962	62021
	BIOPOLYMERS	1	353	1963	63025
ATLAS SM	J PHYS CHEM	66	1326	1962	62020
AULT WC	J AM OIL CHEMISTS SOC	37	679	1960	60008
	J AM OIL CHEMISTS SOC	39	55	1962	62008
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BAILEY JH	J COLLOID SCI	8	385	1953	53007
BAIR EJ	J AM CHEM SOC	73	799	1951	51013
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BALMBRA RR	TRANS FARADAY SOC	58	1661	1962	62013
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BARBULESCU EM	REV CHIM AC.REP POP.ROUM.	6	309	1961	61029
BARR EA	J AM OIL CHEMISTS SOC	43	157	1966	66003
BASCOM WD	J COLLOID SCI	13	569	1958	58024
	WORLD PETROL CONGR, PROC	V 6	18	1959	59021
BAYLEY CH	CAN J CHEM ENGR	F28	213	1950	50010
BECHER P	J COLLOID SCI	14	519	1959	59005
	J PHYS CHEM	63	1675	1959	59006
	J PHYS CHEM	64	1221	1960	60003
	J COLLOID SCI	16	49	1961	61003
	J PHYS CHEM	66	374	1962	62001
	J COLLOID SCI	17	325	1962	62002
	J COLLOID SCI	18	196	1963	63020
	J COLLOID SCI	18	665	1963	63022
	PROC INTERN CONGR SURFACE ACTIVITY	4TH		1964	64005
	J PHYS CHEM	68	3511	1964	64008
	J COLLOID SCI	20	728	1965	65013
BECKETT AH	J PHARM PHARMACOL	15	422	1963	63015
BEISWANGE. JPG	J AM OIL CHEMISTS SOC	43	435	1966	66022
BENJAMIN L	J PHYS CHEM	68	3575	1964	64016
	J COLLOID INTERFACE SCI	22	386	1966	66012
	J PHYS CHEM	70	3790	1966	66040
BENSON GC	J PHYS CHEM	61	593	1957	57002
	CAN J CHEM	35	986	1957	57011
	J COLLOID SCI	13	584	1958	58005
	TRANS FARADAY SOC	54	1638	1958	58006
	CAN J CHEM	37	2083	1959	59007
	CAN J CHEM	37	2086	1959	59008
	TRANS FARADAY SOC	55	1025	1959	59012
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BENTON D	TRANS FARADAY SOC	62	3244	1966	66038
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BETZ MD	J AM CHEM SOC	57	1905	1935	35007
BISTLINE RG	J PHYS CHEM	62	1083	1958	58003
	J AM OIL CHEMISTS SOC	36	241	1959	59004
	J AM OIL CHEMISTS SOC	37	679	1960	60008
	J AM OIL CHEMISTS SOC	39	55	1962	62008
	J AM OIL CHEMISTS SOC	40	538	1963	63013
BISWAS AK	J PHYS CHEM	64	1	1960	60028
BJAASTAD SG	J PHARM SCI	54	1529	1965	65027
BOLAM TR	NATURE	167	195	1951	51012
BOLDUAN OEA	J PHYS CHEM	47	94	1943	43008
BOTRE C	NATURE	184	1482	1959	59014
	TRANS FARADAY SOC	55	1975	1959	59015
	J PHYS CHEM	63	650	1959	59016
	PROC INTERN CONGR SURFACE ACTIVITY	3RD	302	1960	60024
	J MOL BIOL	3	202	1961	61023
	J PHYS CHEM	65	1991	1961	61024
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	PONTIF ACAD SCIENTIAR. SCRIPTA VAR.	22	/12/1	1962	62021
	J PHARM SCI	52	1011	1963	63024
	BIOPOLYMERS	1	353	1963	63025
	BIOCHEM BIOPHYS ACTA	88	415	1964	64031
	J PHYS CHEM	68	3624	1964	64032
	RIC SCI	6	71	1964	64033
	J PHARM SCI	54	919	1965	65010
BOYD GE	J AM CHEM SOC	64	2067	1942	42008
	J AM CHEM SOC	64	498	1942	42009
BRADY AP	J AM CHEM SOC	65	2072	1943	43006
	J COLLOID SCI	3	511	1948	48004
	J COLLOID SCI	3	425	1948	48009
	J PHYS COLLOID CHEM	3	57	1948	48022
	J PHYS COLLOID CHEM	55	311	1951	51004
BRAMFITT TH	J PHYS CHEM	61	1261	1957	57031
BRASS PD	J AM CHEM SOC	76	4703	1954	54013
BROCKLEHURST P	J CHEM SOC		2264	1964	64028
BROOME FK	J AM CHEM SOC	71	2145	1949	49008
	J AM CHEM SOC	71	671	1949	49013
BROWN AS	J PHYS CHEM	56	701	1952	52013
BROWN EL	J AM OIL CHEMISTS SOC	38	361	1961	61019
BROWN GL	J AM CHEM SOC	69	1835	1947	47001
	J AM CHEM SOC	71	95	1949	49014
BROWNING J	TRANS FARADAY SOC	48	209	1952	52011
BRUFANI M	J PHARM SCI	54	919	1965	65010
BRUNING W	J AM CHEM SOC	83	4865	1961	61016
BRUSHMILLER J	J PHYS CHEM	70	2909	1966	66039
BUJAKE JE	TRANS FARADAY SOC	61	190	1965	65007
BUNBURY HM	TRANS FARADAY SOC	31	208	1935	35003
BURY CR	PHIL MAG	4	841	1927	27002
	J CHEM SOC		679	1929	29001
	J CHEM SOC		2263	1930	30001
	J CHEM SOC		626	1935	35008
	TRANS FARADAY SOC	48	209	1952	52011
CADLE RD	J AM CHEM SOC	73	5411	1951	51003
CADY GH	J PHYS CHEM	63	757	1959	59023
CAMPBELL AN	CAN J CHEM	40	839	1962	62034
	CAN J CHEM	43	1004	1964	64026
	CAN J CHEM	43	1729	1965	65024
CARDWELL PH	J COLLOID INTERFACE SCI	22	430	1966	66011
		19	201	1964	64009
CARR CW	J PHYS COLLOID CHEM	51	636	1947	47013
	J POLYMER SCI	5	201	1950	50002
	J POLYMER SCI	5	191	1950	50005
	J PHYS CHEM	60	1245	1956	56001
CARRINGTON RAG	J CHEM SOC		1701	1957	57007
CARTAN F	J CHEM EDUC	37	36	1960	60005
CELLA JA	J AM CHEM SOC	74	2061	1952	52001
CHALLIS RA	J COLLOID SCI	19	201	1964	64009
CHAND P	J AM OIL CHEMISTS SOC	43	446	1966	66023
CLIFTON NK	J COLLOID SCI	14	519	1959	59005
CLUNIE JS	TRANS FARADAY SOC	58	1661	1962	62013
	TRANS FARADAY SOC	60	979	1964	64023
COHEN I	J COLLOID SCI	9	243	1954	54011
	J PHYS CHEM	65	1781	1961	61027
	J PHYS CHEM	65	1774	1961	61028
	J COLLOID SCI	20	732	1965	65012
COLE RH	J AM CHEM SOC	71	2835	1949	49015
COLICHMAN EL	J AM CHEM SOC	72	4036	1950	50012
	J AM CHEM SOC	73	3385	1951	51008

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COLL H	J COLLOID SCI	17	220	1962	62003
COLLIE B	TRANS FARADAY SOC	32	795	1936	36001
CONSOLE L	ANALES ASOC QUIM ARGENT	53	39	1965	65034
COON RI	J PHYS CHEM	57	923	1953	53014
CORKILL JM	TRANS FARADAY SOC	57	1627	1961	61004
	TRANS FARADAY SOC	58	206	1962	62006
	TRANS FARADAY SOC	58	1661	1962	62013
	PROC ROY SOC	273	84	1963	63014
	J PHYS CHEM	67	935	1963	63018
	J COLLOID SCI	18	401	1963	63019
	TRANS FARADAY SOC	60	202	1964	64003
	TRANS FARADAY SOC	60	986	1964	64012
	TRANS FARADAY SOC	60	979	1964	64023
	TRANS FARADAY SOC	60	996	1964	64027
	TRANS FARADAY SOC	61	589	1965	65004
	TRANS FARADAY SOC	61	583	1965	65005
	TRANS FARADAY SOC	62	994	1966	66014
	TRANS FARADAY SOC	62	987	1966	66015
	TRANS FARADAY SOC	62	979	1966	66016
CORRIN ML	J CHEM PHYS	14	216	1946	46002
	J CHEM PHYS	14	640	1946	46004
	J CHEM PHYS	14	641	1946	46005
	J CHEM PHYS	14	480	1946	46010
	J AM CHEM SOC	68	220	1946	46013
	J COLLOID SCI	1	105	1946	46014
	J COLLOID SCI	1	469	1946	46015
	J AM CHEM SOC	69	679	1947	47006
	J AM CHEM SOC	69	683	1947	47010
	J COLLOID SCI	3	333	1948	48013
	J PHYS COLLOID CHEM	53	1350	1949	49006
	J PHYS COLLOID CHEM	54	271	1950	50008
	J COLLOID SCI	6	576	1951	51010
COURCHENE W	J PHYS CHEM	70	2909	1966	66039
CRESCENZI V	NATURE	184	1482	1959	59014
	PROC INTERN CONGR SURFACE ACTIVITY	3RD	302	1960	60024
CRESCENZI VL	TRANS FARADAY SOC	55	1975	1959	59015
	J PHYS CHEM	63	650	1959	59016
CROOK EH	J PHYS CHEM	67	1987	1963	63017
	J AM OIL CHEMISTS SOC	41	231	1964	64013
	J PHYS CHEM	68	3592	1964	64014
	J COLLOID SCI	20	191	1965	65001
CUSHMAN A	J COLLOID SCI	3	425	1948	48009
CZERNIAWSKI M	ROCZN CHEM	39	1059	1965	65031
	ROCZN CHEM	39	1469	1965	65032
	ROCZN CHEM	39	1275	1965	65037
	ROCZN CHEM	40	1265	1966	66029
	ROCZN CHEM	40	1935	1966	66030
DAGGETT HM JR	J AM CHEM SOC	73	799	1951	51013
DAINTON FS	ANN REP PROGR CHEM (CH. S. LONDON)	45	5	1948	48001
DANIELSSON I	ACTA CHEM SCAND	6	440	1952	52007
DAVIES DG	J CHEM SOC		2263	1930	30001
DE MARTIIS F	J PHYS CHEM	68	3624	1964	64032
DEBYE P	J COLLOID SCI	3	407	1948	48006
	ANN N Y ACAD SCI	51	575	1949	49001
	J PHYS COLLOID CHEM	53	1	1949	49002
	AN. R. SOC ESPAN FIS QUIM (MADRID)	46	335	1950	50001
	J PHYS COLLOID CHEM	55	644	1951	51001
	J COLLOID SCI	17	220	1962	62003
DEL VECCHIO AJ	J PHYS CHEM	68	3511	1964	64008
DEMCHENKO LG	UKR KHIM ZH	28	611	1962	62038
DEMCHENKO PA	DOKLADY AKAD NAUK SSSR	131	120	1960	60032
	MASLOB ZHIR PROM	26	26	1960	60034
	KOLLOID ZH	23	528	1961	61030
	DOPOV. AKAD NAUK UKR RSR		928	1961	61031
	UKR KHIM ZH	27	322	1961	61032
	MASLOB ZHIR PROM	27	19	1961	61033
	UKR KHIM ZH	28	46	1962	62037
	UKR KHIM ZH	28	611	1962	62038
DERVICHIAN DG	PROC INTERN CONGR SURFACE ACTIVITY	3RD	182	1960	60019
DITMARSCH R	NATURE	208	889	1965	65029
DIXON JK	J COLLOID SCI	12	452	1957	57009
	J COLLOID SCI	13	411	1958	58001
DOAN AS	J PHYS CHEM	61	371	1957	57003
DOERR IL	J PHYS CHEM	68	3494	1964	64007
DONBROW M	J PHARM PHARMACOL	15	825	1963	63021
	J PHARM PHARMACOL	15	317	1963	63030
	J PHARM PHARMACOL	18	92S	1966	66019
DORST W	KONINKI NED AKAD WETEN. PROC SER B	59	190	1956	56002
DREGER EE	IND ENG CHEM	36	610	1944	44001

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DU BROW PL	J AM CHEM SOC	69	2095	1947	47003
	J AM CHEM SOC	70	977	1948	48014
DULIN CI	J PHYS CHEM	62	1390	1958	58013
DUMANSKII AV	DOKLADY AKAD NAUK SSSR	131	120	1960	60032
DUNNING HN	J PHYS CHEM	59	362	1955	55020
	J PHYS CHEM	60	657	1956	56014
DYE WB	J AM CHEM SOC	61	3210	1939	39011
EGGENBERGER DN	J AM CHEM SOC	69	2095	1947	47003
	J AM CHEM SOC	70	977	1948	48014
	J AM CHEM SOC	70	980	1948	48019
	J AM CHEM SOC	70	2918	1948	48020
	J AM CHEM SOC	70	983	1948	48021
	J PHYS COLLOID CHEM	52	1494	1948	48023
	J AM CHEM SOC	70	436	1948	48027
	J AM CHEM SOC	71	2145	1949	49008
	J AM CHEM SOC	71	672	1949	49009
	J AM CHEM SOC	73	3353	1951	51006
	J AM CHEM SOC	74	2061	1952	52001
EIKREM H	ACTA CHEM SCAND	17	111	1963	63033
EIRICH FR	J PHYS CHEM	66	1326	1962	62020
EKWALL P	ACTA ACAD ABOENSIS, MATH PHYS	4	1	1927	27001
	KOLLOID-Z	45	291	1928	28001
	KOLLOID-Z	161	195	1932	32001
	ACTA ACAD ABOENSIS, MATH PHYS	7	3	1933	33001
	ACTA ACAD ABOENSIS, MATH PHYS	7	3	1933	33002
	KOLLOID-Z	77	320	1936	36003
	KOLLOID-Z	80	77	1937	37001
	KOLLOID-Z	84	284	1938	38002
	FINSKA KEMISTSAMFUNDETS MEDD	1	8	1939	39004
	KOLLOID-Z	92	141	1940	40002
	TEK FOREN FINLAND FØRH	10	1	1940	40003
	MEDD.ABO AKAD.FYS.KEM.IN.	SP NO	3	1941	41002
	KOLLOID-Z	97	71	1941	41003
	KOLLOID-Z	94	42	1941	41004
	KOLLOID-Z	101	135	1942	42004
	FINSKA KEMISTSAMFUNDETS MEDD	25	257	1943	43005
	ACTA CHEM SCAND	6	441	1952	52006
	ACTA CHEM SCAND	6	440	1952	52007
	ACTA CHEM SCAND	17	111	1963	63033
	ACTA CHEM SCAND	19	573	1965	65023
ELDER ME	J COLLOID SCI	9	382	1954	54006
ELWORTHY PH	J PHARM PHARMACOL	012	293	1960	60027
	J PHARM PHARMACOL	14	100	1962	62027
	KOLLOID-Z	195	23	1964	64049
	J PHARM PHARMACOL	17	65	1965	65016
	J COLLOID SCI	21	331	1966	66007
	KOLLOID-Z Z POLYMERE	208	157	1966	66008
EMERSON MF	J PHYS CHEM	69	3718	1965	65006
EPSTEIN MB	J PHYS CHEM	67	2075	1963	63001
ERIKSON JA	J COLLOID SCI	10	71	1955	55025
EVANS HC	J CHEM SOC		579	1956	56006
	J CHEM SOC		1701	1957	57007
EVERS EC	J AM CHEM SOC	68	1137	1946	46018
	J AM CHEM SOC	69	1835	1947	47001
	J AM CHEM SOC	70	3049	1948	48028
EXNER ML	NATURWISSENSCHAFTEN	35	344	1948	48018
EYRING H	J PHYS CHEM	60	890	1956	56016
EZAKI H	BULL CHEM SOC JAPAN	32	624	1959	59017
FAVA A	J PHYS CHEM	60	890	1956	56016
FEW A	J CHEM SOC		1712	1958	58031
FINEMAN MN	J PHYS COLLOID CHEM	52	881	1948	48011
FLOCKHART BD	J COLLOID SCI	8	105	1953	53004
	J COLLOID SCI	8	424	1953	53008
	J COLLOID SCI	12	557	1957	57013
	J COLLOID SCI	16	484	1961	61007
FLORENCE AT	KOLLOID-Z	195	23	1964	64049
	KOLLOID-Z Z POLYMERE	208	157	1966	66008
	J PHARM PHARMACOL	18	384	1966	66020
FORD WPJ	J COLLOID INTERFACE SCI	21	522	1966	66028
FORDYCE DB	J PHYS CHEM	67	1987	1963	63017
	J AM OIL CHEMISTS SOC	41	231	1964	64013
	J PHYS CHEM	68	3592	1964	64014
	J COLLOID SCI	20	191	1965	65001
FOSTER JF	J PHYS CHEM	57	628	1953	53015
FOWKES FM	J PHYS CHEM	61	1062	1957	57014
	J PHYS CHEM	62	159	1958	58029
FOX CJ	J AM CHEM SOC	73	2323	1951	51011
FRIES BA	IND ENG CHEM	44	1636	1952	52014
FROTSCHER H	KOLLOID-BEIH.	45	303	1937	37004

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FUERSTENAU DW	J ELECTROCHEM SOC	106	336	1959	59019
	J PHYS CHEM	68	3562	1964	64035
	TRANS SME AIME		321	1964	64038
FUJITA H	J SCI HIROSHIMA UNIV, SER A-II	28	41	1964	64036
FULLER GW	J COLLOID SCI	10	403	1955	55022
FURMIDGE CGL	J CHEM SOC		03229	1956	56019
GERSHMAN JW	J PHYS CHEM	61	581	1957	57012
GETTY R	J PHYS COLLOID CHEM	52	774	1948	48024
GHOSE HM	J PHYS CHEM	67	1713	1963	63016
GIESE E	KOLLOID-Z	73	276	1935	35002
GIESKES JMTM	CAN J CHEM	43	1004	1964	64026
GILBERT AH	J COLLOID SCI	20	464	1965	65011
GILBY A	J CHEM SOC		1712	1958	58031
GINN ME	J PHYS CHEM	62	1554	1958	58008
	J AM OIL CHEMISTS SOC	36	332	1959	59009
	J AM OIL CHEMISTS SOC	37	183	1960	60010
	J AM OIL CHEMISTS SOC	38	605	1961	61014
	J AM OIL CHEMISTS SOC	38	138	1961	61015
	J AM OIL CHEMISTS SOC	38	361	1961	61019
GODDARD ED	TRANS FARADAY SOC	49	980	1953	53012
	RES CORRESPONDENCE	8	1	1955	55011
	RES CORRESPONDENCE	7	1	1955	55018
	J PHYS CHEM	61	593	1957	57002
	CAN J CHEM	35	986	1957	57011
	TRANS FARADAY SOC	61	190	1965	65007
GONICK E	J AM CHEM SOC	67	1191	1945	45001
	J COLLOID SCI	1	127	1946	46008
	J COLLOID SCI	1	393	1946	46009
	REC TRAV CHIM	65	601	1946	46016
	J AM CHEM SOC	68	177	1946	46019
	J AM CHEM SOC	69	334	1947	47007
GOODMAN JF	TRANS FARADAY SOC	57	1627	1961	61004
	TRANS FARADAY SOC	58	206	1962	62006
	TRANS FARADAY SOC	58	1661	1962	62013
	PROC ROY SOC	273	84	1963	63014
	TRANS FARADAY SOC	60	202	1964	64003
	TRANS FARADAY SOC	60	986	1964	64012
	TRANS FARADAY SOC	60	979	1964	64023
	TRANS FARADAY SOC	60	996	1964	64027
	TRANS FARADAY SOC	61	589	1965	65004
	TRANS FARADAY SOC	61	583	1965	65005
	TRANS FARADAY SOC	62	994	1966	66014
	TRANS FARADAY SOC	62	987	1966	66015
	TRANS FARADAY SOC	62	979	1966	66016
GOTTE E	KOLLOID-Z	117	42	1950	50009
	FETTE, SEIFEN, ANSTRICHMI	56	583	1954	54007
	PROC INTERN CONGR SURFACE ACTIVITY	3RD	45	1960	60018
GRABENSTETT.RJ	J COLLOID SCI	18	401	1963	63019
GRAHAM H	J COLLOID SCI	8	105	1953	53004
GREEN AA	J AM CHEM SOC	68	731	1946	46022
GREENFIELD A	J PHYS CHEM	61	818	1957	57004
GREGORY NW	J AM CHEM SOC	70	1992	1948	48012
GRIEGER PF	J AM CHEM SOC	68	1137	1946	46018
	J AM CHEM SOC	69	1835	1947	47001
	J AM CHEM SOC	70	3803	1948	48010
	J AM CHEM SOC	71	95	1949	49014
	J AM CHEM SOC	71	309	1949	49017
	J AM CHEM SOC	71	1455	1949	49018
GRIESS W	FETTE, SEIFEN, ANSTRICHMI	57	236	1955	55026
	FETTE, SEIFEN, ANSTRICHMI	57	168	1955	55027
	FETTE, SEIFEN, ANSTRICHMI	57	24	1955	55028
GRINDLEY J	J CHEM SOC		679	1929	29001
GUENTHNER RA	J PHYS CHEM	57	923	1953	53014
HAFFNER FD	J PHYS CHEM	46	662	1942	42003
HALL NA	J PHARM SCI	54	1529	1965	65027
HAMANN SD	J PHYS CHEM	66	1359	1962	62036
HARKINS WD	J AM CHEM SOC	59	2197	1937	37005
	J AM CHEM SOC	62	1496	1940	40005
	J CHEM PHYS	14	216	1946	46002
	J CHEM PHYS	14	640	1946	46004
	J CHEM PHYS	14	641	1946	46005
	J CHEM PHYS	14	480	1946	46010
	J CHEM PHYS	14	215	1946	46011
	J AM CHEM SOC	68	220	1946	46013
	J COLLOID SCI	1	105	1946	46014
	J COLLOID SCI	1	469	1946	46015
	J CHEM PHYS	14	214	1946	46017
	J AM CHEM SOC	69	679	1947	47006
	J CHEM PHYS	15	763	1947	47008

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	J AM CHEM SOC	69	1428	1947	47009
	J AM CHEM SOC	69	683	1947	47010
	J CHEM PHYS	15	496	1947	47012
	J PHYS COLLOID CHEM	53	1350	1949	49006
	J COLLOID SCI	4	367	1949	49007
	J AM CHEM SOC	71	808	1949	49011
	J PHYS COLLOID CHEM	54	271	1950	50008
	SCI MONTHLY	70	220	1950	50011
	J COLLOID SCI	6	576	1951	51010
HARRIMAN LA	J AM CHEM SOC	74	2061	1952	52001
HARRIS JC	SOAP CHEM SPECIALTIES	1958		1958	58002
	J AM OIL CHEMISTS SOC	35	670	1958	58004
	J PHYS CHEM	62	1554	1958	58008
	J AM OIL CHEMISTS SOC	35	428	1958	58010
	J AM OIL CHEMISTS SOC	36	332	1959	59009
	J AM OIL CHEMISTS SOC	37	183	1960	60010
	J AM OIL CHEMISTS SOC	38	169	1961	61006
	J AM OIL CHEMISTS SOC	38	605	1961	61014
	J AM OIL CHEMISTS SOC	38	138	1961	61015
	J AM OIL CHEMISTS SOC	38	361	1961	61019
HARROLD SP	J PHYS CHEM	63	317	1959	59001
	J COLLOID SCI	15	280	1960	60004
	TRANS FARADAY SOC	60	202	1964	64003
	TRANS FARADAY SOC	62	994	1966	66014
HARTLEY GS	Z PHYSIK CHEM (LEIPZIG)	170	321	1934	34001
	TRANS FARADAY SOC	31	183	1935	35001
	TRANS FARADAY SOC	32	795	1936	36001
	J AM CHEM SOC	58	2347	1936	36002
	J CHEM SOC		1968	1938	38001
	NATURE	142	161	1938	38003
	TRANS FARADAY SOC	34	1288	1938	38005
	TRANS FARADAY SOC	35	1109	1939	39001
	KOLLOID-Z	88	22	1939	39005
	J CHEM SOC		1828	1939	39008
	TRANS FARADAY SOC	37	130	1941	41001
	ANN REP PROGR CHEM (CH. S. LONDON)	45	33	1948	48002
	NATURE	163	767	1949	49010
	CHEM IND (LONDON)	24	1012	1964	64030
HARVA O	FINSKA KEMISTSAMFUNDETS MEDD	25	257	1943	43005
	TRANS FARADAY SOC	49	980	1953	53012
	REC TRAV CHIM	75	112	1956	56018
HARWOOD HJ	J AM CHEM SOC	69	2095	1947	47003
	J AM CHEM SOC	71	672	1949	49009
	J AM CHEM SOC	71	671	1949	49013
	J AM CHEM SOC	73	3353	1951	51006
	J AM CHEM SOC	74	2061	1952	52001
HASAN A	ACTA CHEM SCAND	6	440	1952	52007
HATTORI K	BULL CHEM SOC JAPAN	36	1250	1963	63006
HAYANO S	KOLLOID-Z	181	139	1962	62023
HAYDON DA	TRANS FARADAY SOC	54	698	1958	58012
	PHIL TRANS ROY SOC LONDON, SER A	252	225	1960	60011
	TRANS FARADAY SOC	58	1233	1962	62004
HEALY TW	J PHYS CHEM	68	3562	1964	64035
	TRANS SME AIME		321	1964	64038
HENNE AL	J AM CHEM SOC	73	2323	1951	51011
HERMANS JJ	KONINKI NED AKAD WETEN. PROC SER B	58	91	1955	55001
	J PHYS CHEM	59	576	1955	55002
	KONINKI NED AKAD WETEN. PROC SER B	58	97	1955	55009
	KONINKI NED AKAD WETEN. PROC SER B	59	190	1956	56002
	KONINKI NED AKAD WETEN. PROC SER B	59	162	1956	56007
	KONINKI NED AKAD WETEN. PROC SER B	59	298	1956	56011
HERRMANN KW	J PHYS CHEM	66	295	1962	62005
	J PHYS CHEM	67	935	1963	63018
	J PHYS CHEM	68	1540	1964	64006
	J COLLOID INTERFACE SCI	22	352	1966	66013
HERRMANNWK	J PHYS CHEM	70	2909	1966	66039
HERZFELD SH	J PHYS COLLOID CHEM	54	271	1950	50008
	J PHYS CHEM	56	953	1952	52015
	J PHYS CHEM	56	959	1952	52017
HESS K	KOLLOID-Z	88	40	1939	39009
HICKSON J	PROC INTERN CONGR SURFACE ACTIVITY	2ND		1957	57024
HIEBERT EN	J COLLOID SCI	1	385	1946	46020
HIGHAM EH	RES CORRESPONDENCE	7	1	1955	55018
HIGUCHI T	J AM PHARM ASSOC	43	465	1954	54015
HISKEY CF	J COLLOID SCI	9	243	1954	54011
HOERR CW	J AM CHEM SOC	64	2824	1942	42001
	J AM CHEM SOC	64	772	1942	42002
	J AM CHEM SOC	64	97	1942	42005
	J AM CHEM SOC	65	976	1943	43002
	J AM CHEM SOC	65	328	1943	43009

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	J AM CHEM SOC	68	2460	1946	46001
	J AM CHEM SOC	69	883	1947	47002
	J COLLOID SCI	15	427	1960	60001
HOEVE CAJ	J PHYS CHEM	61	593	1957	57002
HOFFMAN EJ	J AM CHEM SOC	64	97	1942	42005
	J AM CHEM SOC	64	2067	1942	42008
	J AM CHEM SOC	64	498	1942	42009
HOLLAHAN JR	J PHYS CHEM	63	757	1959	59023
HOLMBERG P	ACTA CHEM SCAND	19	573	1965	65023
HOLTZER A	J AM CHEM SOC	83	4865	1961	61016
	J PHYS CHEM	69	3718	1965	65006
HONIG JG	J PHYS CHEM	58	201	1954	54009
	J PHYS CHEM	60	1108	1956	56012
	J PHYS CHEM	60	1114	1956	56013
HORI R	BULL CHEM SOC JAPAN	34	237	1961	61008
HOSOKAWA S	BULL CHEM SOC JAPAN	35	1050	1962	62033
	BULL CHEM SOC JAPAN	36	204	1963	63034
HOULTON HG	J AM CHEM SOC	60	544	1938	38008
HOYER HW	J PHYS CHEM	61	818	1957	57004
	J PHYS CHEM	65	1804	1961	61001
	J PHYS CHEM	65	1807	1961	61002
	J PHYS CHEM	68	3494	1964	64007
HSIAO L	J PHYS CHEM	59	362	1955	55020
	J PHYS CHEM	60	657	1956	56014
HUBBARD HM	J AM CHEM SOC	76	4300	1954	54014
HUBBARD WD	J PHYS CHEM	57	808	1953	53009
	J PHYS CHEM	58	1163	1954	54002
	J COLLOID SCI	10	428	1955	55003
	J PHYS CHEM	61	371	1957	57003
	J RES NAT BUR STD A	59	113	1957	57006
	J RES NAT BUR STD A	68	359	1964	64043
HUDSON JB	J COLLOID SCI	12	523	1957	57010
HUFF H	J COLLOID SCI	3	511	1948	48004
	J PHYS COLLOID CHEM	55	311	1951	51004
HUGO WB	J PHARM PHARMACOL	12	447	1960	60026
HUISMAN HF	KONINKI NED AKAD WETEN. PROC SER B	67	367	1964	64045
	KONINKI NED AKAD WETEN. PROC SER B	67	376	1964	64046
	KONINKI NED AKAD WETEN. PROC SER B	67	388	1964	64047
	KONINKI NED AKAD WETEN. PROC SER B	67	407	1964	64048
HUTCHINSON E	J PHYS CHEM	58	1124	1954	54012
	Z PHYSIK CHEM (FRANKFURT)	11	165	1957	57021
	Z PHYSIK CHEM (FRANKFURT)	21	38	1959	59018
	Z PHYSIK CHEM (FRANKFURT)	31	397	1962	62016
	J CHEM EDUC	40	472	1963	63029
	J PHYS CHEM	68	2818	1964	64037
	J PHYS CHEM	70	3502	1966	66026
IDA O	J CHEM SOC JAPAN, PURE CHEM SEC	77	905	1966	66032
IFUKU N	REV PHYS CHEM JAPAN	35	32	1965	65036
	J CHEM SOC JAPAN, PURE CHEM SEC	87	329	1966	66033
IKEDA S	BULL CHEM SOC JAPAN	34	1236	1961	61012
	BULL CHEM SOC JAPAN	35	240	1962	62022
INO T	BULL CH SOC JAPAN	30	760	1957	57033
INOUE H	J CHEM SOC JAPAN, PURE CHEM SEC	78	636	1957	57019
	J CHEM SOC JAPAN, PURE CHEM SEC	79	348	1958	58018
	J CHEM SOC JAPAN, PURE CHEM SEC	79	345	1958	58019
	J CHEM SOC JAPAN, PURE CHEM SEC	79	48	1958	58028
	J COLLOID SCI	15	268	1960	60006
	KOLLOID-Z	183	68	1962	62010
	KOLLOID-Z	196	1	1964	64019
	KOLLOID-Z	195	93	1964	64021
	PROC INTERN CONGR SURFACE ACTIVITY	4TH	N	1964	64040
	J PHYS CHEM	70	1108	1965	65033
ISEMURA T	BULL CHEM SOC JAPAN	34	1236	1961	610
	BULL CHEM SOC JAPAN	35	1737	1962	62012
	BULL CHEM SOC JAPAN	35	240	1962	62022
	BULL CHEM SOC JAPAN	36	1250	1963	63006
IWAMATSU I	BULL CHEM SOC JAPAN	35	1050	1962	62033
	BULL CHEM SOC JAPAN	36	204	1963	63034
JACOBS J	J PHARM PHARMACOL	18	925	1966	66019
JAKOB CW	J PHYS CHEM	67	2075	1963	63001
JAMES JW	PROC INTERN CONGR SURFACE ACTIVITY	3RD	227	1960	60020
JAN ZA	J PHARM PHARMACOL	15	825	1963	63021
JOHNSON JS	J PHYS CHEM	68	81	1964	64017
JOHNSON KE	J AM CHEM SOC	66	9	1944	44003
JOHNSON WF	J PHYS CHEM	50	440	1946	46006
	J PHYS COLLOID CHEM	51	636	1947	47013
	J PHYS COLLOID CHEM	52	22	1948	48025
	J AM CHEM SOC	73	4563	1951	51002
	J AM CHEM SOC	74	20	1952	52002
	J AM CHEM SOC	74	22	19	52003

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JOHNSTON SA	J AM CHEM SOC	61	3210	1939	39011
JONES E	PHIL MAG	4	841	1927	27002
JONES TG	TRANS FARADAY SOC	49	980	1953	53012
	RES CORRESPONDENCE	8	1	1955	55011
KAKIUCHI K	BULL CHEM SOC JAPAN	36	1250	1963	63006
KAPAUAN P	J COLLOID SCI	16	481	1961	61005
	J PHYS CHEM	70	783	1966	66002
KARNAUKH AM	MASLOB ZHIR PROM	29	22	1963	63039
KARTZMARK EM	CAN J CHEM	40	839	1962	62034
KASHIWAGI KM	J COLLOID SCI	13	618	1958	58021
KASHIWAGI M	BULL CHEM SOC JAPAN	32	624	1959	59017
KATO Y	CHEM PHARM BULL (TOKYO)	11	1202	1963	63037
KATSURA K	J PHYS CHEM	68	1568	1964	64011
KAUFMAN S	J COLLOID SCI	12	465	1957	57026
	J PHYS CHEM	62	1257	1958	58025
	WORLD PETROL CONGR, PROC	V 6	18	1959	59021
	J COLLOID SCI	17	231	1962	62025
	J PHYS CHEM	68	2814	1964	64041
KAWAMURA S	YAKUGAKU ZASSHI	84	246	1964	64034
KAZUO T	J CHEM SOC JAPAN, PURE CHEM SEC	79	48	1958	58028
KEIM GI	IND ENG CHEM	36	610	1944	44001
KIESSIG H	KOLLOID-Z	88	40	1939	39009
KINNEY FB	J AM OIL CHEMISTS SOC	36	332	1959	59009
	J AM OIL CHEMISTS SOC	37	18	S1960	60010
	J AM OIL CHEMISTS SOC	38	138	1961	61015
KINOSHITA K	J PHYS CHEM	63	648	1959	59013
KITAHARA A	BULL CHEM SOC JAPAN	28	234	1955	55019
	BULL CHEM SOC JAPAN	29	1	S1956	56015
	J COLLOID SCI	12	342	1957	57027
	BULL CHEM SOC JAPAN	30	586	1957	57028
	BULL CHEM SOC JAPAN	31	288	1957	57029
	BULL CHEM SOC JAPAN	31	653	1958	58022
	J PHYS CHEM	66	363	1962	62024
	KOGYO KAGAKU ZASSHI	68	2058	1965	65002
KLAMANN D	PROC INTERN CONGR SURFACE ACTIVITY	3RD	1	1960	60016
	PROC INTERN CONGR SURFACE ACTIVITY	3RD	27	1960	60017
KLEVENS HB	J CHEM PHYS	14	216	1946	46002
	J CHEM PHYS	14	742	1946	46007
	J CHEM PHYS	14	480	1946	46010
	J CHEM PHYS	14	567	1946	46012
	J PHYS COLLOID CHEM	51	114	1947	47004
	J COLLOID SCI	2	301	1947	47005
	J PHYS COLLOID CHEM	52	130	1948	48005
	J AM OIL CHEMISTS SOC	26	456	1949	49003
	J PHYS COLLOID CHEM	54	1012	1950	50003
	J AM CHEM SOC	72	3780	1950	50004
	ANAL CHEM	22	1141	1950	50006
	CHEM REV	47	1	1950	50007
	MEM SERV CHIM ETAT (PARIS)	37	13	1952	52004
	J AM CHEM SOC	74	4624	1952	52005
	KOLLOID-Z	128	61	1952	52008
	J AM OIL CHEMISTS SOC	30	74	1953	53010
	PROC INTERN CONGR SURFACE ACTIVITY	1ST	1	1954	54004
	J CHIM PHYS	51	1	1954	54010
	NATURE	176	879	1955	55017
	J PHYS CHEM	60	1245	1956	56001
	MEM SERV CHIM ETAT (PARIS)	41	363	1956	56010
	PROC INTERN CONGR SURFACE ACTIVITY	2ND	395	1957	57017
	KOLLOID-Z	158	53	1958	58011
KLING W	PROC INTERN CONGR SURFACE ACTIVITY	2ND	295	1957	57022
KOBAYASHI T	J PHYS CHEM	66	363	1962	62024
KOLBEL H	ANGEW CHEM	71	211	1959	59022
	PROC INTERN CONGR SURFACE ACTIVITY	3RD	1	1960	60016
	PROC INTERN CONGR SURFACE ACTIVITY	3RD	27	1960	60017
KOLTHOFF IM	J PHYS CHEM	50	440	1946	46006
	J PHYS COLLOID CHEM	51	636	1947	47013
	J PHYS COLLOID CHEM	52	915	1948	48016
	J PHYS COLLOID CHEM	52	22	1948	48025
	J PHYS COLLOID CHEM	53	424	1949	49005
	J POLYMER SCI	5	201	1950	50002
	J POLYMER SCI	5	191	1950	50005
	J AM CHEM SOC	73	4563	1951	51002
	J AM CHEM SOC	74	20	1952	52002
	J AM CHEM SOC	74	22	1952	52003
KOMOR JA	J AM OIL CHEMISTS SOC	43	435	1966	66022
KONDO A	J CHEM SOC JAPAN, PURE CHEM SEC	77	905	1966	66032
KONDO T	J CHEM SOC JAPAN, PURE CHEM SEC	77	1236	1956	56020
	BULL CHEM SOC JAPAN	30	905	1957	S7032
	BULL CHEM SOC JAPAN	30	760	1957	57033
	J CHEM SOC JAPAN, PURE CHEM SEC	80	818	1959	59024

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	J CHEM SOC JAPAN, PURE CHEM SEC	80	821	1959	59025
	J CHEM SOC JAPAN, PURE CHEM SEC	80	823	1959	59026
KONNO K	KOGYO KAGAKU ZASSHI	68	2058	1965	65002
KONSTANTIN. VV	KHIM TEKHNOL	5	61	1960	60033
KOSTOVA NZ	KOLOIID ZH	26	76	1964	64051
KRAUS CA	J AM CHEM SOC	68	1137	1946	46018
	J AM CHEM SOC	69	1835	1947	47001
	J AM CHEM SOC	70	3803	1948	48010
	J AM CHEM SOC	70	3049	1948	48028
	J AM CHEM SOC	71	95	1949	49014
	J AM CHEM SOC	71	309	1949	49017
	J AM CHEM SOC	71	1455	1949	49018
	J AM CHEM SOC	72	3676	1950	50013
	J AM CHEM SOC	73	2173	1951	51009
	J AM CHEM SOC	73	799	1951	51013
	J AM CHEM SOC	73	1129	1951	51014
	J AM CHEM SOC	73	2170	1951	51016
	PROC NAT ACAD SCI U S	39	1213	1953	53011
KRIUENTSOV WI	ZAVODSKAYA LAB	24	158	1958	58030
KRIZEK H	J COLLOID SCI	6	576	1951	51010
KRYUKOVA AS	KHIM TEKHNOL	5	61	1960	60033
KUCHER RV	COLLOID J (USSR)	14	243	1952	52018
	COLLOID J (USSR)	14	311	1952	52019
KUHN DW	J AM CHEM SOC	72	3676	1950	50013
KUHN P	ANGEW CHEM	71	211	1959	59022
KUPPUSAMI J	NATURE	208	780	1965	65028
KURIYAMA K	J CHEM SOC JAPAN, PURE CHEM SEC	78	1568	1957	57018
	J CHEM SOC JAPAN, PURE CHEM SEC	78	1573	1957	57020
	J CHEM SOC JAPAN, PURE CHEM SEC	79	348	1958	58018
	J CHEM SOC JAPAN, PURE CHEM SEC	79	345	1958	58019
	J CHEM SOC JAPAN, PURE CHEM SEC	79	48	1958	58028
	J COLLOID SCI	15	268	1960	60006
	KOLLOID-Z	180	55	1962	62009
	KOLLOID-Z	183	68	1962	62010
	KOLLOID-Z	181	144	1962	62011
	KOLLOID-Z	191	48	1963	63012
KURZ J L	J PHYS CHEM	66	2239	1962	62040
KURZENDORFER P	PROC INTERN CONGR SURFACE ACTIVITY	3RD	1	1960	60016
KUSHNER LM	J PHYS CHEM	57	808	1953	53009
	J PHYS CHEM	58	1163	1954	54002
	J COLLOID SCI	10	428	1955	55003
	J PHYS CHEM	61	371	1957	57003
	J RES NAT BUR STD A	59	113	1957	57006
KWARTLER CE	J COLLOID SCI	8	385	1953	53007
LACH JL	J AM PHARM ASSOC	43	465	1954	54015
LAKSHMINAR. GR	CAN J CHEM	40	839	1962	62034
	CAN J CHEM	43	1729	1965	65024
LAL H	J COLLOID SCI	8	414	1953	53013
LANGE H	KOLLOID-Z	121	66	1951	51005
	KOLLOID-Z	131	96	1953	53005
	PROC INTERN CONGR SURFACE ACTIVITY	2ND	295	1957	57022
	PROC INTERN CONGR SURFACE AOIVITY	3RD	279	1960	60012
	FETTE, SEIFEN, ANSTRICHMI	64	457	1962	62018
	PROC INTERN CONGR SURFACE ACTIVITY	4TH	1	1964	64039
LARSEN EC	Z ELEKTROCHEM	44	651	1938	38004
LELONG ALM	J AM CHEM SOC	73	5411	1951	51003
	J PHYS CHEM	59	1185	1955	55021
	ANALES ASOC QUIM ARGENT	53	39	1965	65034
	ANALES ASOC QUIM ARGENT	53	11	1965	65035
LESHCHENKO ZY	MASLOB ZHIR PROM	26	24	1960	60030
	MASLOB ZHIR PROM	28	20	1962	62039
	MASLOB ZHIR PROM	29	19	1963	63038
LESYUIS AA	MASLOB ZHIR PROM	29	22	1963	63039
	BULL CHEM SOC JAPAN	28	227	1955	55008
	J CHINESE CHEM SOC	4	28	1957	57005
	J CHINESE CHEM SOC	4	21	1957	57008
LINDSTROM RE	MEDD.ABO AKAD.FYS.KEM.IN.	SP NO	3	1941	41002
	KOLLOID-Z	94	42	1941	41004
LINGAFELTER EC	J AM CHEM SOC	65	686	1943	43001
	J AM CHEM SOC	65	698	1943	43004
	J AM CHEM SOC	68	1490	1946	46003
	J AM CHEM SOC	70	1989	1948	48007
	J AM CHEM SOC	71	1325	1949	49004
	J AM CHEM SOC	73	5411	1951	51003
	J COLLOID SCI	10	71	1955	55025
LIQUORI AM	TRANS FARADAY SOC	55	1975	1959	59015
	PROC INTERN CONGR SURFACE ACTIVITY	3RD	302	1960	60024
	J MOL BIOL	3	202	1961	61023
	J PHYS CHEM	65	1991	1961	61024
	PONTIF ACAD SCIENTIAR. SCRIPTA VAR.	22	/12/1	1962	62021
	RIC SCI	6	71	1964	64033

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LITTLE RC	J PHYS CHEM	68	3453	1964	64042
	J PHYS CHEM	68	2709	1964	64044
LONG FA	J AM CHEM SOC	59	2197	1937	37005
	J AM CHEM SOC	62	1496	1940	40005
	J AM CHEM SOC	63	84	1941	41006
LORENZ PB	J PHYS CHEM	60	657	1956	56014
LOTTERMOSER A	KOLLOID-Z	63	175	1933	33003
	KOLLOID-Z	63	49	1933	33004
	KOLLOID-Z	73	276	1935	35002
	TRANS FARADAY SOC	31	200	1935	35004
	KOLLOID-BEIH.	45	303	1937	37004
LOVELL VM	ANAL CHEM	38	1926	1966	66024
LUCK W	PROC INTERN CONGR SURFACE ACTIVITY	3RD	264	1960	60023
LUDLUM DB	J PHYS CHEM	60	1240	1956	56005
MACFARLANE CB	J PHARM PHARMACOL	14	100	1962	62027
	J PHARM PHARMACOL	17	65	1965	65016
MALIK WU	INDIAN J CHEM	3	441	1965	65021
	J AM OIL CHEMISTS SOC	43	446	1966	66023
MALSCH J	Z PHYSIK CHEM (LEIPZIG)	170	321	1934	34001
MANCHESTER KE	J PHYS CHEM	58	1124	1954	54012
MANDELL L	ACTA CHEM SCAND	17	111	1963	63033
MANKOWICH AM	J AM OIL CHEMISTS SOC	41	449	1964	64010
	J AM OIL CHEMISTS SOC	43	615	1966	66021
MANNING DJ	J AM OIL CHEMISTS SOC	43	133	1966	66001
MARKAN AL	ZAVODSKAYA LAB	24	158	1958	58030
MARKINA ZN	KOLLOID ZH	26	76	1964	64051
MARMO A	J PHYS CHEM	65	1804	1961	61001
	J PHYS CHEM	65	1807	1961	61002
MARON SH	J COLLOID SCI	9	382	1954	54006
MARUTA I	J CHEM SOC JAPAN, PURE CHEM SEC	82	1657	1961	61009
	J CHEM SOC JAPAN, PURE CHEM SEC	82	1512	1961	61010
	J CHEM SOC JAPAN, PURE CHEM SEC	82	1660	1961	61011
	J CHEM SOC JAPAN, PURE CHEM SEC	83	732	1962	62007
	J CHEM SOC JAPAN, PURE CHEM SEC	83	786	1962	62026
	J CHEM SOC JAPAN, PURE CHEM SEC	83	395	1962	62028
	J CHEM SOC JAPAN, PURE CHEM SEC	83	782	1962	62029
	J CHEM SOC JAPAN, PURE CHEM SEC	83	788	1962	62030
	J CHEM SOC JAPAN, PURE CHEM SEC	83	858	1962	62031
	J CHEM SOC JAPAN, PURE CHEM SEC	83	861	1962	62032
	KOGYO KAGAKU ZASSHI	68	1090	1965	65017
MATHAI K	TRANS FARADAY SOC	62	759	1966	66031
	TRANS FARADAY SOC	62	750	1966	66037
MATIJEVIC E	CROAT CHEM ACTA	29	431	1957	57001
	TRANS FARADAY SOC	54	587	1958	58020
MATSUMOTO T	J SCI HIROSHIMA UNIV, SER A-II	21	51	1957	57025
MATTOON RW	J AM CHEM SOC	68	220	1946	46013
	J COLLOID SCI	1	105	1946	46014
	J CHEM PHYS	15	763	1947	47008
MATUURA R	BULL CHEM SOC JAPAN	35	1050	1962	62033
	BULL CHEM SOC JAPAN	36	204	1963	63034
	BULL CHEM SOC JAPAN	36	813	1963	63035
	BULL CHEM SOC JAPAN	38	373	1965	65020
MAURER EW	J AM OIL CHEMISTS SOC	36	241	1959	59004
	J AM OIL CHEMISTS SOC	41	205	1964	64002
MCBAIN JW	J AM CHEM SOC	57	1905	1935	35007
	J PHYS CHEM	40	493	1936	36005
	J AM CHEM SOC	63	670	1941	41005
	J PHYS CHEM	46	10	1942	42006
	IND ENG CHEM	34	915	1942	42007
	J AM CHEM SOC	65	2072	1943	43006
	J PHYS CHEM	47	94	1943	43008
	J AM CHEM SOC	66	9	1944	44003
	J COLLOID SCI	1	127	1946	46008
	REC TRAV CHIM	65	601	1946	46016
	J AM CHEM SOC	68	731	1946	46022
	J AM CHEM SOC	69	334	1947	47007
	J COLLOID SCI	3	425	1948	48009
	J PHYS COLLOID CHEM	52	881	1948	48011
	J AM CHEM SOC	70	3838	1948	48015
	J PHYS COLLOID CHEM	52	12	1948	48026
	J PHYS COLLOID CHEM	55	311	1951	51004
MCBAIN MEL	J AM CHEM SOC	61	3210	1939	39011
	J COLLOID SCI	10	223	1955	55023
	J PHYS CHEM	47	196	1943	43007
MCCORKLE MR	J AM CHEM SOC	65	328	1943	43009
MCDOWELL MJ	J AM CHEM SOC	73	2173	1951	51009
	J AM CHEM SOC	73	2170	1951	51016
MCHAN H	J AM CHEM SOC	70	3838	1948	48015
MCNEILL W	J PHYS CHEM	56	701	1952	52013
MEADER AL	IND ENG CHEM	44	1636	1952	52014

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MEEHAN EJ	J POLYMER SCI	5	201	1950	50002
	J POLYMER SCI	5	191	1950	50005
MEGURO K	J CHEM SOC JAPAN, PURE CHEM SEC	77	1236	1956	56020
	BULL CHEM SOC JAPAN	30	905	1957	57032
	BULL CHEM SOC JAPAN	30	760	1957	57033
	J CHEM SOC JAPAN, PURE CHEM SEC	80	818	1959	59024
	J CHEM SOC JAPAN, PURE CHEM SEC	80	821	1959	59025
	J CHEM SOC JAPAN, PURE CHEM SEC	80	823	1959	59026
	J CHEM SOC JAPAN, PURE CHEM SEC	77	905	1966	66032
MELE A	NATURE	184	1482	1959	59014
	TRANS FARADAY SOC	55	1975	1959	59015
	J PHYS CHEM	63	650	1959	59016
MERRILL RC	J PHYS COLLOID CHEM	52	774	1948	48024
MERRILL RC JR	J AM CH M S	63	670	1941	41005
	J PHYS CHEM	46	10	1942	42006
	IND ENG CHEM	34	915	1942	42007
	J PHYS COLLOID CHEM	52	12	1948	48026
METCALF AD	J COLLOID SCI	17	523	1962	62015
MEYER HG	J PHYS CHEM	70	783	1966	66002
MIJNLIEFF PF	NATURE	208	889	1965	65029
MILES GD	IND ENG CHEM	36	610	1944	44001
	J PHYS CHEM	48	57	1944	44002
	J PHYS CHEM	49	71	1945	45002
MILLER ML	J COLLOID SCI	13	411	1958	58001
MITTELMANN R	J CHEM PHYS	15	763	1947	47008
	J PHYS COLLOID CHEM	53	1350	1949	49006
	J COLLOID SCI	4	367	1949	49007
MIURA M	J SCI HIROSHIMA UNIV, SER A-II	21	51	1957	57025
	J SCI HIROSHIMA UNIV, SER A-II	22	57	1958	58023
	J SCI HIROSHIMA UNIV, SER A-II	28	41	1964	64036
MIYAMOTO S	BULL CHEM SOC JAPAN	33	375	1960	60029
	BULL CHEM SOC JAPAN	33	371	1960	60035
MODI HJ	J ELECTROCHEM SOC	106	336	1959	59019
MOLYNEUX P	TRANS FARADAY SOC	61	1043	1965	65003
MOULE D	TRANS FARADAY SOC	54	1638	1958	58006
	CAN J CHEM	37	2083	1959	59007
	CAN J CHEM	37	2086	1959	59008
MUKERJEE P	J AM CHEM SOC	77	2937	1955	55015
	J PHYS CHEM	62	1390	1958	58013
	J PHYS CHEM	62	1397	1958	58014
	J PHYS CHEM	62	1400	1958	58015
	J PHYS CHEM	62	1404	1958	58016
	J PHYS CHEM	67	190	1963	63032
	J PHYS CHEM	70	783	1966	66002
	J PHYS CHEM	70	2138	1966	66004
	J PHYS CHEM	70	2144	1966	66005
	J PHYS CHEM	70	2150	1966	66006
MUKHERJI BK	J PHYS CHEM	64	1	1960	60028
MULLEY BA	J COLLOID SCI	17	523	1962	62015
	J COLLOID SCI	19	201	1964	64009
MURRAY RC	TRANS FARADAY SOC	31	183	1935	35001
MYSELS EK	J COLLOID SCI	20	315	1965	65018
MYSELS KJ	TRANS FARADAY SOC	51	728	1955	55005
	J PHYS CHEM	59	325	1955	55014
	J AM CHEM SOC	77	2937	1955	55015
	J COLLOID SCI	10	507	1955	55016
	J PHYS CHEM	62	1390	1958	58013
	J PHYS CHEM	62	1400	1958	58015
	J PHYS CHEM	63	1696	1959	59002
	J PHYS CHEM	63	1781	1959	59003
	J COLLOID SCI	16	481	1961	61005
	J COLLOID SCI	16	462	1961	61017
	J COLLOID SCI	16	474	1961	61018
	J COLLOID SCI	20	315	1965	65018
	J PHYS CHEM	69	1466	1965	65019
	J COLLOID SCI	21	331	1966	66007
NAKADATE S	REP INST SCI TECH UNIV TOKYO	7	401	1953	53001
NAKAGAKI M	J CHEM SOC JAPAN, PURE CHEM SEC	72	113	1951	51018
	BULL CHEM SOC JAPAN	37	817	964	64025
	YAKUGAKU ZASSHI	84	246	1964	64034
NAKAGAWA T	J CHEM SOC JAPAN, PURE CHEM SEC	78	1568	1957	57018
	J CHEM SOC JAPAN, PURE CHEM SEC	78	636	1957	57019
	J CHEM SOC JAPAN, PURE CHEM SEC	78	1573	1957	57020
	SHINOGI KENKYUSHO NEMPO	8	805	1958	58017
	J CHEM SOC JAPAN, PURE CHEM SEC	79	348	1958	58018
	J CHEM SOC JAPAN, PURE CHEM SEC	79	345	1958	58019
	J CHEM SOC JAPAN, PURE CHEM SEC	79	48	1958	58028
	J COLLOID SCI	15	268	1960	60006
	PROC INTERN CONGR SURFACE ACTIVITY	3RD	636	1960	60007
	KOLLOID-Z	168	132	1960	60009
	CHEM IND (LONDON)	14	1135	1961	61022

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	KOLLOID-Z	183	68	1962	62010
	KOLLOID-Z	189	50	1963	63008
	KOLLOID-Z	188	47	1963	63009
	KOLLOID-Z	187	44	1963	63010
	KOLLOID-Z	191	48	1963	63012
	KOLLOID-Z	194	143	1964	64015
	KOLLOID-Z	195	93	1964	64021
	PROC INTERN CONGR SURFACE ACTIVITY	4TH	N	1964	64040
	J PHYS CHEM	70	1108	1965	65033
NAKAYAMA H	J COLLOID SCI	18	705	1963	63036
	J PHYS CHEM	70	3502	1966	66026
NASH T	CHEM IND (LONDON)		590	1958	58027
NATALE I	ANALES ASOC QUIM ARGENT	53	11	1965	65035
NAUMAN RV	J PHYS CHEM	68	3498	1964	64001
NEFF LL	J AM CHEM SOC	70	1989	1948	48007
NEWTON JM	J PHARM PHARMACOL	12	447	1960	60026
NICOLESCU A	REV CHIM AC.REP POP.ROUM.	6	309	1961	61029
NINOMIYA Y	BULL CHEM SOC JAPAN	37	817	1964	64025
NOEL DR	J AM CHEM SOC	74	2061	1952	52001
NOGUCHI J	BULL CHEM SOC JAPAN	34	1236	1961	61012
NUTTING GC	J AM CHEM SOC	59	2197	1937	37005
	J AM CHEM SOC	62	1496	1940	40005
	J AM CHEM SOC	63	84	1941	41006
OGDEN CP	PROC ROY SOC	273	84	1963	63014
	TRANS FARADAY SOC	61	583	1965	65005
OHBA N	BULL CHEM SOC JAPAN	30	905	1957	57032
	BULL CHEM SOC JAPAN	30	760	1957	57033
OHKI K	J PHYS CHEM	70	3437	1966	66027
OKUYAMA H	BULL CHEM SOC JAPAN	27	259	1954	54008
	BULL CHEM SOC JAPAN	30	186	1957	57023
OLEINIKOVA ZV	MASLOB ZHIR PROM	26	26	1960	60031
OLIVIER JP	J PHYS CHEM	63	1671	1959	59020
OLOANE JK	J AM CH M SOC	73	5411	1951	51003
OPPENHEIMER H	J CHEM PHYS	15	496	1947	47012
	J AM CHEM SOC	71	808	1949	49011
OSIPOW L	PROC INTERN CONGR SURFACE ACTIVITY	2ND		1957	57024
OSTER G	J COLLOID SCI	9	243	1954	54011
OSUGI J	REV PHYS CHEM JAPAN	35	32	1965	65036
	J CHEM SOC JAPAN, PURE CHEM SEC	87	329	1966	66033
OTTER RJ	J COLLOID SCI	16	462	1961	61017
	J COLLOID SCI	16	474	1961	61018
OTTEWILL RH	TRANS FARADAY SOC	62	750	1966	66037
	J CHEM SOC		1712	1958	58031
	TRANS FARADAY SOC	57	1627	1961	61004
	J COLLOID INTERFACE SCI	21	522	1966	66028
	TRANS FARADAY SOC	62	759	1966	66031
OYAMA T	J CHEM SOC JAPAN, PURE CHEM SEC	79	348	1958	58018
	J CHEM SOC JAPAN, PURE CHEM SEC	79	345	1958	58019
PACKTER A	J PHARM PHARMACOL	15	317	1963	63030
PANKHURST KGA	TRANS FARADAY SOC	42	523	1946	46021
PAQUETTE RG	J AM CHEM SOC	65	686	1943	43001
PARKER RA	J RES NAT BUR STD A	59	113	1957	57006
PARREIRA HC	ANAIS ACAD BRASIL CIENC	32	207	1960	60015
	J COLLOID INTERFACE SCI	21	522	1966	66028
PARRY GA	J CHEM SOC		626	1935	35008
PATEL RM	J PHARM SCI	55	1345	1966	66017
PATTERSON GD	J PHYS CHEM	57	247	1953	53003
PETHICA BA	CROAT CHEM ACTA	29	431	1957	57001
	TRANS FARADAY SOC	54	587	1958	58020
	PROC INTERN CONGR SURFACE ACTIVITY	3RD	227	1960	60020
PHILIPPOFF W	KOLLOID-Z	88	40	1939	39009
PHILLIPS JN	TRANS FARADAY SOC	51	728	1955	55005
	J PHYS CHEM	59	325	1955	55014
	TRANS FARADAY SOC	51	561	1955	55024
	TRANS FARADAY SOC	54	698	1958	58012
PICCIONE GA	J PHYS CHEM	46	662	1942	42003
PILPEL N	J COLLOID SCI	9	285	1954	54001
	J PHYS CHEM	60	779	1956	56004
	TRANS FARADAY SOC	57	1426	1961	61013
	CHEM REV	63	221	1963	63002
	NATURE	204	378	1964	64022
POWNEY J	TRANS FARADAY SOC	31	1510	1935	35005
	TRANS FARADAY SOC	33	851	1937	37003
	TRANS FARADAY SOC	34	372	1938	38006
PRINCEN LH	J PHYS CHEM	63	1696	1959	59002
	J PHYS CHEM	63	1781	1959	59003
PRINS W	J PHYS CHEM	59	576	1955	55002
	KONINKI NED AKAD WETEN. PROC SER B	59	190	1956	56002
	KONINKI NED AKAD WETEN. PROC SER B	59	162	1956	56007
	KONINKI NED AKAD WETEN. PROC SER B	59	298	1956	56011

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PUSCHEL F	KOLLOID-Z	63	175	1933	33003
PYTASZ G	ZESZYTY NAUK UNIW JAGIEL	211	199	1966	66034
	ZESZYTY NAUK UNIW JAGIEL	211	209	1966	66035
RADLEY JA	PROC INTERN CONGR SURFACE ACTIVITY	3RD	246	1960	60021
RAISON M	COMPT REND	235	1129	1952	52016
	PROC INTERN CONGR SURFACE ACTIVITY	1ST	1	1954	54004
	J CHIM PHYS	51	1	1954	54010
RALSTON AW	J AM CHEM SOC	64	2824	1942	42001
	J AM CHEM SOC	64	772	1942	42002
	J AM CHEM SOC	64	97	1942	42005
	J AM CHEM SOC	64	2067	1942	42008
	J AM CHEM SOC	64	498	1942	42009
	J AM CHEM SOC	65	976	1943	43002
	J AM CHEM SOC	65	328	1943	43009
	J AM CHEM SOC	68	2460	1946	46001
	J AM CHEM SOC	69	883	1947	47002
	J AM CHEM SOC	69	2095	1947	47003
	J AM CHEM SOC	70	977	1948	48014
	J AM CHEM SOC	70	980	1948	48019
	J AM CHEM SOC	70	2918	1948	48020
	J AM CHEM SOC	70	983	1948	48021
	J PHYS COLLOID CHEM	52	1494	1948	48023
	J AM CHEM SOC	70	436	1948	48027
	J AM CHEM SOC	71	2145	1949	49008
	J AM CHEM SOC	71	672	1949	49009
	J AM CHEM SOC	71	671	1949	49013
RAY A	J PHYS CHEM	67	190	1963	63032
	J PHYS CHEM	70	2138	1966	66004
	J PHYS CHEM	70	2144	1966	66005
	J PHYS CHEM	70	2150	1966	66006
REED RM	J AM CHEM SOC	57	570	1935	35006
	J AM CHEM SOC	58	322	1936	36006
REEVES RL	J PHYS CHEM	69	2357	1965	65030
REITMIER RE	J AM CHEM SOC	62	2375	1940	40001
REYNOLDS CA	J AM CHEM SOC	76	4300	1954	54014
RHODES CT	TRANS FARADAY SOC	61	1043	1965	65003
RICCIERI FM	J PHARM SCI	52	1011	1963	63024
	J PHARM SCI	54	919	1965	65010
ROBINS DC	J PHARM PHARMACOL	15	522	1963	63005
	J PHARM PHARMACOL	15	157	1963	63031
ROBINSON RU	J PHYS CHEM	56	701	1952	52013
ROBSON P	TRANS FARADAY SOC	62	987	1966	66015
ROE CP	J AM CHEM SOC	76	4703	1954	54013
ROSE GRF	CAN J CHEM ENGR	F28	213	1950	50010
ROSENBLUM C	J PHYS CHEM	46	662	1942	42003
ROSS J	IND ENG CHEM	36	610	1944	44001
ROSS S	J COLLOID SCI	8	385	1953	53007
	J COLLOID SCI	12	523	1957	57010
	J PHYS CHEM	61	1261	1957	57031
	J PHYS CHEM	63	1671	1959	59020
RUSH RM	J PHYS CHEM	68	81	1964	64017
SAITO S	BULL CHEM SOC JAPAN	30	186	1957	57023
SAITO T	J CHEM SOC JAPAN, PURE CHEM SEC	82	1512	1961	61010
SAKAI T	J CHEM SOC JAPAN, PURE CHEM SEC	82	1512	1961	61010
SAMIS CS	TRANS FARADAY SOC	32	795	1936	36001
	TRANS FARADAY SOC	34	1288	1938	38005
SASAKI H	BULL CHEM SOC JAPAN	30	186	1957	57023
	BULL CHEM SOC JAPAN	30	326	1957	57030
SATA N	BULL CHEM SOC JAPAN	26	177	1953	53006
SATAKE I	BULL CHEM SOC JAPAN	35	1050	1962	62033
	BULL CHEM SOC JAPAN	36	204	1963	63034
	BULL CHEM SOC JAPAN	36	813	1963	63035
SATANEK J	J AM OIL CHEMISTS SOC	38	169	1961	61006
SATO M	REV PHYS CHEM JAPAN	35	32	1965	65036
	J CHEM SOC JAPAN, PURE CHEM SEC	87	329	1966	66033
SAWYER WM	J PHYS CHEM	62	159	1958	58029
SCHICK MJ	J PHYS CHEM	61	1062	1957	57014
	J COLLOID SCI	17	801	1962	62019
	J PHYS CHEM	66	1326	1962	62020
	J PHYS CHEM	67	1796	1963	63026
	J AM OIL CHEMISTS SOC	40	680	1963	63027
	J COLLOID SCI	18	378	1963	63028
	J PHYS CHEM	68	3585	1964	64020
	J COLLOID SCI	20	464	1965	65011
	J AM OIL CHEMISTS SOC	43	133	1966	66001
	J AM OIL CHEMISTS SOC	43	681	1966	66025
SCHMID G	Z ELEKTROCHEM	44	651	1938	38004
SCHOLBERG HM	J PHYS CHEM	57	923	1953	53014
SCHOTT H	J PHYS CHEM	68	3612	1964	64004
	J PHYS CHEM	70	2966	1966	66036

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SCIBONA G	ANN CHIM (ROME)	52	1199	1962	62017
SCOTT AB	J AM CHEM SOC	65	692	1943	43003
	J AM CHEM SOC	65	698	1943	43004
SCOTT R	NATURE	167	195	1951	51012
SEARLES J	J PHYS CHEM	40	493	1936	36005
SEBBA F	ANAL CHEM	38	1926	1966	66024
SHAFFER PM	Z PHYSIK CHEM (FRANKFURT)	31	397	1962	62016
SHANE N	J PHYS CHEM	69	968	1965	65025
SHEAFFER VE	J PHYS CHEM	68	2818	1964	64037
SHEDLOVSKY L	IND ENG CHEM	36	610	1944	44001
	J PHYS CHEM	48	57	1944	44002
	J PHYS CHEM	67	2075	1963	63001
SHIGEHARA K	BULL CHEM SOC JAPAN	38	1700	1965	650
	BULL CHEM SOC JAPAN	39	2643	1966	66009
	BULL CHEM SOC JAPAN	39	2332	1966	66010
SHIGEHIRO F	KOGYO KAGAKU ZASSHI	68	1090	1965	65017
SHINODA K	J PHYS CHEM	58	1136	1954	54003
	J PHYS CHEM	58	541	1954	54005
	BULL FAC ENG, YOKOHAMA NAT UNIV	4	77	1955	55004
	J PHYS CHEM	59	432	1955	55007
	J PHYS CHEM	60	1439	1956	56003
	J PHYS CHEM	63	648	1959	59013
	BULL CHEM SOC JAPAN	34	237	1961	61008
	J COLLOID SCI	18	705	1963	63036
	J PHYS CHEM	68	1568	1964	64011
	J PHYS CHEM	70	3502	1966	66026
SHIRAHAMA K	BULL CHEM SOC JAPAN	38	373	1965	65020
SHIRAI M	BULL CHEM SOC JAPAN	28	545	1955	55010
	BULL CHEM SOC JAPAN	29	733	1956	56009
	BULL CHEM SOC JAPAN	30	411	1957	57015
	BULL CHEM SOC JAPAN	30	542	1957	57016
	BULL CHEM SOC JAPAN	31	467	1958	58007
SHISHIDO S	BULL CHEM SOC JAPAN	24	41	1951	51017
SHOLTES EH	J COLLOID SCI	1	385	1946	46020
SHUCK GR	J AM CHEM SOC	71	1325	1949	49004
SHUTE HL	TRANS FARADAY SOC	34	758	1938	38007
SIMON E	J CHEM PHYS	15	496	1947	47012
SINGER K	ANN REP PROGR CH M (HI S. LONDON)	45	51	1948	48003
SINGLETERRY CR	J AM CHEM SOC	70	3965	1948	48017
	J COLLOID SCI	4	537	1949	49012
	J AM CHEM SOC	73	4574	1951	51007
	J PHYS CHEM	58	201	1954	54009
	J PHYS CHEM	60	1108	1956	56012
	J PHYS CHEM	60	1114	1956	56013
	J COLLOID SCI	12	465	1957	57026
	J COLLOID SCI	13	569	1958	58024
	J PHYS CHEM	62	1257	1958	58025
	WORLD PETROL CONGR, PROC	V 6	18	1959	59021
	J PHYS CHEM	68	3453	1964	64042
	J PHYS CH M	68	2709	1964	64044
SIROIS EH	J PHYS CHEM	56	701	1952	52013
SIVERTZ V	J AM CHEM SOC	61	549	1939	39007
	J AM CHEM SOC	62	2375	1940	40001
SMEDS K	ACTA CHEM SCAND	6	441	1952	52006
SMITH FD	J AM OIL CHEMISTS SOC	40	538	1963	63013
SNELL FD	PROC INTERN CONGR SURFACE ACTIVITY	2ND		1957	57024
SOLINAS M	BIOCHEM BIOPHYS ACTA	88	415	1964	64031
	J PHYS CHEM	68	3624	1964	64032
SOMASUNDARAN P	J PHYS CHEM	68	3562	1964	64035
	TRANS SME AIME		321	1964	64038
SPARKS B	TRANS FARADAY SOC	62	3244	1966	66038
SPINGOLA F	J COLLOID SCI	20	732	1965	65012
STANLEY JS	PROC INTERN CONGR SURFACE ACTIVITY	3RD	246	1960	60021
STAUFF J	Z PHYSIK CHEM (LEIPZIG)	183	55	1939	39000
STEARNS RS	J CHEM PHYS	14	215	1946	46011
	J CHEM PHYS	14	214	1946	46017
	J CHEM PHYS	15	496	1947	47012
STEIGMAN J	J COLLOID SCI	20	732	1965	65012
	J PHYS CHEM	69	968	1965	65025
STERNBERG RJ	J POLYMER SCI	5	191	1950	50005
STEWART A	TRANS FARADAY SOC	31	208	1935	35003
STEWART JC	RES CORRESPONDENCE	7	1	1955	55018
STIRTON AJ	J PHYS CHEM	60	899	1956	56008
	J PHYS CHEM	62	1083	1958	58003
	J AM OIL CHEMISTS SOC	36	241	1959	59004
	J AM OIL CHEMISTS SOC	37	679	1960	60008
	J AM OIL CHEMISTS SOC	39	55	1962	62008
	J AM OIL CHEMISTS SOC	40	538	1963	63013
	J AM OIL CHEMISTS SOC	41	205	1964	64002
	J AM OIL CHEMISTS SOC	43	157	1966	66003
STOLL F	KOLLOID-Z	63	49	1933	33004

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STRICKS W	J PHYS COLLOID CHEM	52	915	1948	48016
	J PHYS COLLOID CHEM	53	424	1949	49005
SURYANARAY.CV	NATURE	208	780	1965	65028
SWARBICK J	TRANS FARADAY SOC	61	1043	1965	65003
SZEGLOWSKI Z	ZESZYTY NAUK UNIW JAGIEL	211	199	1966	66034
	ZESZYTY NAUK UNIW JAGIEL	211	209	1966	66035
TACHIBANA T	J PHYS CHEM	66	363	1962	62024
TAMAKI K	BULL CHEM SOC JAPAN	31	467	1958	58007
TAMAMUSHI B	REP INST SCI TECH UNIV TOKYO	7	401	1953	53001
	BULL CHEM SOC JAPAN	28	545	1955	55010
	BULL CH M S J) ⊢	9	733	1956	56009
	BULL CHEM SOC JAPAN	30	411	1957	57015
	BULL CHEM SOC JAPAN	30	542	1957	57016
	BULL CHEM SOC JAPAN	31	467	1958	58007
TARTAR HV	J AM CHEM SOC	57	570	1935	35006
	J AM CHEM SOC	58	322	1936	36006
	J AM CHEM SOC	60	544	1938	38008
	J AM CHEM SOC	61	539	1939	39002
	J AM CHEM SOC	61	549	1939	39007
	J AM CHEM SOC	61	544	1939	39010
	J AM CHEM SOC	62	2375	1940	40001
	J AM CHEM SOC	65	686	1943	43001
	J AM CHEM SOC	65	692	1943	43003
	J AM CHEM SOC	65	698	1943	43004
	J AM CHEM SOC	68	1490	1946	46003
	J AM CHEM SOC	70	1989	1948	48007
	J AM CHEM SOC	70	1992	1948	48012
	J AM CHEM SOC	73	5411	1951	51003
	J PHYS CHEM	59	1190	1955	55006
	J PHYS CHEM	59	1193	1955	55012
	J PHYS CHEM	59	1195	1955	55013
	J PHYS CHEM	59	1185	1955	55021
	J COLLOID SCI	14	115	1959	59010
	J COLLOID SCI	17	243	1962	62014
TATE JR	PROC ROY SOC	273	84	1963	63014
	TRANS FARADAY SOC	60	986	1964	64012
	TRANS FARADAY SOC	60	996	1964	64027
	TRANS FARADAY SOC	62	994	1966	66014
	TRANS FARADAY SOC	62	987	1966	66015
	TRANS FARADAY SOC	62	979	1966	66016
TAUBMAN AB	KHIM TEKHNOL	5	61	1960	60033
TAYLOR FH	PHIL TRANS ROY SOC LONDON, SER A	252	225	1960	60011
	TRANS FARADAY SOC	58	1233	1962	62004
TAYLOR H	J COLLOID SCI	19	495	1964	64050
THAKKAR AL	J PHARM SCI	54	1529	1965	65027
THIBAULT HG	J PHYS CHEM	56	701	1952	52013
THOMAS IL	J PHARM PHARMACOL	15	522	1963	63005
	J PHARM PHARMACOL	15	157	1963	63031
TOFIAS A	J PHYS CHEM	56	701	1952	52013
TOKIWA F	J CHEM SOC JAPAN, PURE CHEM SEC	82	1657	1961	61009
	J CHEM SOC JAPAN, PURE CHEM SEC	82	1512	1961	61010
	J CHEM SOC JAPAN, PURE CHEM SEC	82	1660	1961	61011
	BULL CHEM SOC JAPAN	34	1236	1961	61012
	J CHEM SOC JAPAN, PURE CHEM SEC	83	732	1962	62007
	BULL CHEM SOC JAPAN	35	1737	1962	62012
	BULL CHEM SOC JAPAN	35	240	1962	62022
	BULL CHEM SOC JAPAN	36	222	1963	63003
	BULL CHEM SOC JAPAN	36	1589	1963	63004
	BULL CHEM SOC JAPAN	36	281	1963	63007
	BULL CHEM SOC JAPAN	36	1585	1963	63023
	J CHEM EDUC	40	472	1963	63029
	BULL CHEM SOC JAPAN	37	1837	1964	64024
	J PHYS CHEM	68	2818	1964	64037
	BULL CHEM SOC JAPAN	38	751	1965	65014
	J PHYS CHEM	70	3437	1966	66027
TONG LKJ	J PHYS CHEM	69	2357	1965	65030
TORI K	J CHEM SOC JAPAN, PURE CHEM SEC	78	1573	1957	57020
	KOLLOID-Z	168	132	1960	60009
	KOLLOID-Z	189	50	1963	63008
	KOLLOID-Z	188	47	1963	63009
	KOLLOID-Z	187	44	1963	63010
	KOLLOID-Z	191	48	1963	63012
	KOLLOID-Z	194	143	1964	64015
TRAP HJL	KONINKI NED AKAD WETEN. PROC SER B	58	97	1955	55009
TREBBI GF	J PHYS CHEM	67	1987	1963	63017
	J AM OIL CHEMISTS SOC	41	231	1964	64013
	J PHYS CHEM	68	3592	1964	64014
	J COLLOID SCI	20	191	1965	65001
TSIKURINA NN	KOLLOID ZH	26	76	1964	64051
TUDDENHAM RF	J PHYS CHEM	66	1839	1962	62035

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TYUZYO K	BULL CHEM SOC JAPAN	26	177	1953	53006
	BULL CHEM SOC JAPAN	27	259	1954	54008
	BULL CHEM SOC JAPAN	31	117	1958	58026
	KOLLOID-Z	175	40	1961	61025
UBBELOHDE AR	J COLLOID SCI	8	424	1953	53008
ULEVITCH IN	J COLLOID SCI	9	382	1954	54006
V DEN TEMPEL M	PROC INTERN CONGR SURFACE ACTIVITY	3RD	248	1960	60022
V VOORST VA.F	PROC INTERN CONGR SURFACE ACTIVITY	3RD	276	1960	60013
	TRANS FARADAY SOC	56	1078	1960	60014
	PROC INTERN CONGR SURFACE ACTIVITY	3RD	248	1960	60022
	TRANS FARADAY SOC	56	1067	1960	60025
	TRANS FARADAY SOC	57	110	1961	61026
VASSILIADES T	J PHYS CHEM	65	1781	1961	61027
	J PHYS CHEM	65	1774	1961	61028
VEIS A	J COLLOID SCI	15	427	1960	60001
VENABLE RL	J PHYS CHEM	68	3498	1964	64001
VERGNOLLE J	MEM SERV CHIM ETAT (PARIS)	41	363	1956	56010
	PROC INTERN CONGR SURFACE ACTIVITY	2ND	395	1957	57017
VERMA SP	INDIAN J CHEM	3	441	1965	65021
VETTER RJ	J PHYS COLLOID CHEM	51	263	1947	47011
VINOGRAD JR	J AM CHEM SOC	63	670	1941	41005
VOEKS JF	J PHYS CHEM	59	1190	1955	55006
WACHS W	KOLLOID-Z	181	139	1962	62023
WAGNER E	PROC INTERN CONGR SURFACE ACTIVITY	3RD	27	1960	60017
WALKER T	TRANS FARADAY SOC	61	589	1965	65004
WALTON HF	J COLLOID SCI	1	385	1946	46020
WAN LSC	J PHARM SCI	55	1395	1966	66018
WARD AFH	J CHEM SOC		522	1939	39003
	PROC ROY SOC	176	412	1940	40004
WASIK SP	J RES NAT BUR STD A	68	359	1964	64043
WATARI Y	J SCI HIROSHIMA UNIV, SER A-II	28	41	1964	64036
WEATHERBURN AS	CAN J CHEM ENGR	28	213	1950	50010
WEIL JK	J PHYS CHEM	60	899	1956	56008
	J PHYS CHEM	62	1083	1958	58003
	J AM OIL CHEMISTS SOC	36	241	1959	59004
	J AM OIL CHEMISTS SOC	37	679	1960	60008
	J AM OIL CHEMISTS SOC	39	55	1962	62008
	J AM OIL CHEMISTS SOC	40	538	1963	63013
	J AM OIL CHEMISTS SOC	41	205	1964	64002
	J AM OIL CHEMISTS SOC	43	157	1966	66003
WEINER ND	J PHARM SCI	54	436	1965	65026
WESTWELL AE	J PHYS CHEM	63	1022	1959	59011
	J PHYS CHEM	68	3490	1964	64018
WHEELER OL	J AM CHEM SOC	68	1490	1946	46003
	J AM CHEM SOC	70	1989	1948	48007
WHITE P	J COLLOID SCI	13	584	1958	58005
	TRANS FARADAY SOC	54	1638	1958	58006
	CAN J CHEM	37	2086	1959	59008
	TRANS FARADAY SOC	55	1025	1959	59012
	J PHYS CHEM	64	599	1960	60002
WILDER AG	J PHYS COLLOID CHEM	52	12	1948	48026
WILLIAMS DE	J POLYMER SCI	5	201	1950	50002
WILLIAMS EF	J COLLOID SCI	12	452	1957	57009
WILLIAMS G	ANN REP PROGR CHEM (CH. S. LONDON)	45	51	1948	48003
WILLIAMS RJ	TRANS FARADAY SOC	51	728	1955	55005
WINSLOW L	J PHYS CHEM	58	1124	1954	54012
	Z PHYSIK CHEM (FRANKFURT)	11	165	1957	57021
WINSOR PA	TRANS FARADAY SOC	44	463	1948	48008
	J PHYS CHEM	56	391	1952	52009
WOODBERRY N	J COLLOID SCI	12	452	1957	57009
WOODWARD RJ	J PHARM PHARMACOL	15	422	1963	63015
WRIGHT KA	J AM CHEM SOC	61	539	1939	39002
	J AM CHEM SOC	61	549	1939	39007
	J AM CHEM SOC	61	544	1939	39010
YAMAGUCHI T	BULL CHEM SOC JAPAN	34	237	1961	61008
YAMANAKA T	J PHYS CHEM	63	648	1959	59013
YANG JT	J PHYS CHEM	57	628	1953	53015
YODA O	J CHEM SOC JAPAN, PURE CHEM SEC	77	1236	1956	56020
	BULL CHEM SOC JAPAN	30	760	1957	57033
YOUNG HS	J AM CHEM SOC	71	309	1949	49017
YURZHENKO AI	COLLOID J (USSR)	14	243	1952	52018
	COLLOID J (USSR)	14	311	1952	52019
ZAKHAROVA NN	UKR KHIM ZH	28	611	1962	62038
ZOELLNER M	J PHYS CHEM	65	1804	1961	61001
ZOGRAFI G	J PHARM SCI	54	436	1965	65026
	J PHARM SCI	55	1345	1966	66017
ZUTRAUEN HA	J CHIM PHYS	53	62	1956	56017

List of References

Reference No.	Authors		Journal	Vol.	Pg.	Year	No. of Entries from Reference
27001	EKWALL P		ACTA ACAD ABOENSIS, MATH PHYS	4	1	1927	YIELDED 5 ENTRIES
27002	JONES E	BURY CR	PHIL MAG	4	841	1927	YIELDED 2 ENTRIES
28001	EKWALL P		KOLLOID-Z	45	291	1928	NO ENTRIES
29001	GRINDLEY J	BURY CR	J CHEM SOC		679	1929	YIELDED 5 ENTRIES
30001	DAVIES DG	BURY CR	J CHEM SOC		2263	1930	YIELDED 1 ENTRIES
32001	EKWALL P		KOLLOID-Z	161	195	1932	YIELDED 5 ENTRIES
33001	EKWALL P		ACTA ACAD ABOENSIS, MATH PHYS	7	3	1933	NO ENTRIES
33002	EKWALL P		ACTA ACAD ABOENSIS, MATH PHYS	7	3	1933	NO ENTRIES
33003	LOTTERMOSER A	PUSCHEL F	KOLLOID-Z	63	175	1933	NO ENTRIES
33004	LOTTERMOSER A	STOLL F	KOLLOID-Z	63	49	1933	NO ENTRIES
34001	MALSCH J	HARTLEY GS	Z PHYSIK CHEM (LEIPZIG)	170	321	1934	YIELDED 1 ENTRIES
35001	MURRAY RC	HARTLEY GS	TRANS FARADAY SOC	31	183	1935	YIELDED 1 ENTRIES
35002	LOTTERMOSER A	GIESE E	KOLLOID-Z	73	276	1935	NO ENTRIES
35003	STEWART A	BUNBURY HM	TRANS FARADAY SOC	31	208	1935	NO ENTRIES
35004	LOTTERMOSER A		TRANS FARADAY SOC	31	200	1935	NO ENTRIES
35005	POWNEY J		TRANS FARADAY SOC	31	1510	1935	NO ENTRIES
35006	REED RM	TARTAR HV	J AM CHEM SOC	57	570	1935	NO ENTRIES
35007	MCBAIN JW	BETZ MD	J AM CHEM SOC	57	1905	1935	NO ENTRIES
35008	BURY CR	PARRY GA	J CHEM SOC		626	1935	YIELDED 2 ENTRIES
36001	HARTLEY GS	COLLIE B SAMIS CS	TRANS FARADAY SOC	32	795	1936	YIELDED 5 ENTRIES
36002	HARTLEY GS		J AM CHEM SOC	58	2347	1936	YIELDED 8 ENTRIES
36003	EKWALL P		KOLLOID-Z	77	320	1936	NO ENTRIES
36004	ADAM NK		TRANS FARADAY SOC	32	653	1936	NO ENTRIES
36005	MCBAIN JW	SEARLES J	J PHYS CHEM	40	493	1936	NO ENTRIES
36006	REED RM	TARTAR HV	J AM CHEM SOC	58	322	1936	NO ENTRIES
37001	EKWALL P		KOLLOID-Z	80	77	1937	NO ENTRIES
37003	POWNEY J	ADDISON CC	TRANS FARADAY SOC	33	851	1937	NO ENTRIES
37004	LOTTERMOSER A	FROTSCHER H	KOLLOID-BEIH.	45	303	1937	NO ENTRIES
37005	LONG FA	NUTTING GC HARKINS WD	J AM CHEM SOC	59	2197	1937	NO ENTRIES
38001	HARTLEY GS		J CHEM SOC		1968	1938	YIELDED 4 ENTRIES
38002	EKWALL P		KOLLOID-Z	84	284	1938	NO ENTRIES
38003	HARTLEY GS		NATURE	142	161	1938	NO ENTRIES
38004	SCHMID G	LARSEN EC	Z ELEKTROCHEM	44	651	1938	NO ENTRIES
38005	SAMIS CS	HARTLEY GS	TRANS FARADAY SOC	34	1288	1938	NO ENTRIES
38006	POWNEY J	ADDISON CC	TRANS FARADAY SOC	34	372	1938	YIELDED 7 ENTRIES
38007	ADAM NK	SHUTE HL	TRANS FARADAY SOC	34	758	1938	NO ENTRIES
38008	HOULTON HG	TARTAR HV	J AM CHEM SOC	60	544	1938	NO ENTRIES
39001	HARTLEY GS		TRANS FARADAY SOC	35	1109	1939	NO ENTRIES
39002	TARTAR HV	WRIGHT KA	J AM CHEM SOC	61	539	1939	YIELDED 5 ENTRIES
39003	WARD AFH		J CHEM SOC		522	1939	NO ENTRIES
39004	EKWALL P		FINSKA KEMISTSAMFUNDETS MEDD		8	1939	NO ENTRIES
39005	HARTLEY GS		KOLLOID-Z	88	22	1939	NO ENTRIES
39006	STAUFF J		Z PHYSIK CHEM (LEIPZIG)	183	55	1939	YIELDED 5 ENTRIES
39007	WRIGHT KA TARTAR HV	ABBOTT AD SIVERTZ V	J AM CHEM SOC	61	549	1939	YIELDED 12 ENTRIES
39008	HARTLEY GS		J CHEM SOC		1828	1939	NO ENTRIES
39009	HESS K	PHILIPPOFF W KIESSIG H	KOLLOID-Z	88	40	1939	YIELDED 9 ENTRIES
39010	WRIGHT KA	TARTAR HV	J AM CHEM SOC	61	544	1939	NO ENTRIES
39011	MCBAIN MEL	DYE WB JOHNSTON SA	J AM CHEM SOC	61	3210	1939	YIELDED 7 ENTRIES
40001	TARTAR HV	SIVERTZ V REITMIER RE	J AM CHEM SOC	62	2375	1940	NO ENTRIES
40002	EKWALL P		KOLLOID-Z	92	141	1940	NO ENTRIES
40003	EKWALL P		TEK FOREN FINLAND FORH	10	1	1940	YIELDED 4 ENTRIES
40004	WARD AFH		PROC ROY SOC	176	412	1940	YIELDED 8 ENTRIES
40005	NUTTING GC	LONG FA HARKINS WD	J AM CHEM SOC	62	1496	1940	NO ENTRIES
41001	HARTLEY GS		TRANS FARADAY SOC	37	130	1941	NO ENTRIES
41002	EKWALL P	LINDSTROM RE	MEDD.ABO AKAD.FYS.KEM.IN.	SP NO	3	1941	NO ENTRIES
41003	EKWALL P		KOLLOID-Z	97	71	1941	YIELDED 2 ENTRIES
41004	EKWALL P	LINDSTROM RE	KOLLOID-Z	94	42	1941	YIELDED 1 ENTRIES
41005	MCBAIN JW	MERRILL RC JR VINOGRAD JR	J AM CHEM SOC	63	670	1941	NO ENTRIES
41006	NUTTING GC	LONG FA	J AM CHEM SOC	63	84	1941	NO ENTRIES
42001	HOERR CW	RALSTON AW	J AM CHEM SOC	64	2824	1942	NO ENTRIES
42002	RALSTON AW	HOERR CW	J AM CHEM SOC	64	772	1942	YIELDED 7 ENTRIES
42003	HAFFNER FD	PICCIONE GA ROSENBLUM C	J PHYS CHEM	46	662	1942	YIELDED 8 ENTRIES
42004	EKWALL P		KOLLOID-Z	101	135	1942	YIELDED 10 ENTRIES
42005	RALSTON AW	HOERR CW HOFFMAN EJ	J AM CHEM SOC	64	97	1942	NO ENTRIES
42006	MERRILL RC JR	MCBAIN JW	J PHYS CHEM	46	10	1942	NO ENTRIES
42007	MCBAIN JW	MERRILL RC JR	IND ENG CHEM	34	915	1942	NO ENTRIES
42008	HOFFMAN EJ	BOYD GE RALSTON AW	J AM CHEM SOC	64	2067	1942	NO ENTRIES
42009	HOFFMAN EJ	BOYD GE RALSTON AW	J AM CHEM SOC	64	498	1942	NO ENTRIES
43001	PAQUETTE RG	LINGAFELTER EC TARTAR HV	J AM CHEM SOC	65	686	1943	YIELDED 8 ENTRIES
43002	HOERR CW	RALSTON AW	J AM CHEM SOC	65	976	1943	NO ENTRIES
43003	SCOTT AB	TARTAR HV	J AM CHEM SOC	65	692	1943	YIELDED 10 ENTRIES
43004	SCOTT AB	TARTAR HV LINGAFELTER EC	J AM CHEM SOC	65	698	1943	YIELDED 2 ENTRIES
43005	EKWALL P	HARVA O	FINSKA KEMISTSAMFUNDETS MEDD	25	257	1943	NO ENTRIES
43006	MCBAIN JW	BRADY AP	J AM CHEM SOC	65	2072	1943	YIELDED 2 ENTRIES

Reference No.	Authors			Journal	Vol.	Pg.	Year	No. of Entries from Reference
43007	MCBAIN ML			J PHYS CHEM	47	196	1943	NO ENTRIES
43008	MCBAIN JW	BOLDUAN OEA		J PHYS CHEM	47	94	1943	NO ENTRIES
43009	HOERR CW	MCCORKLE MR	RALSTON AW	J AM CHEM SOC	65	328	1943	NO ENTRIES
44001	DREGER EE SHEDLOVSKY L	KEIM GI ROSS J	MILES GD	IND ENG CHEM	36	610	1944	NO ENTRIES
44002	MILES GD	SHEDLOVSKY L		J PHYS CHEM	48	57	1944	NO ENTRIES
44003	MCBAIN JW	JOHNSON KE		J AM CHEM SOC	66	9	1944	NO ENTRIES
45001	GONICK E			J AM CHEM SOC	67	1191	1945	NO ENTRIES
45002	MILES GD			J PHYS CHEM	49	71	1945	NO ENTRIES
46001	RALSTON AW	HOERR CW		J AM CHEM SOC	68	2460	1946	YIELDED 6 ENTRIES
46002	CORRIN ML	KLEVENS HB	HARKINS WD	J CHEM PHYS	14	216	1946	YIELDED 3 ENTRIES
46003	LINGAFELTER EC	WHEELER OL	TARTAR HV	J AM CHEM SOC	68	1490	1946	*NO ENTRIES*
46004	CORRIN ML	HARKINS WD		J CHEM PHYS	14	640	1946	YIELDED 11 ENTRIES
46005	CORRIN ML	HARKINS WD		J CHEM PHYS	14	641	1946	YIELDED 5 ENTRIES
46006	KOLTHOFF IM	JOHNSON WF		J PHYS CHEM	50	440	1946	YIELDED 5 ENTRIES
46007	KLEVENS HB			J CHEM PHYS	14	742	1946	YIELDED 8 ENTRIES
46008	GONICK E	MCBAIN JW		J COLLOID SCI	1	127	1946	YIELDED 1 ENTRIES
46009	GONICK E			J COLLOID SCI	1	393	1946	NO ENTRIES
46010	CORRIN ML	KLEVENS HB	HARKINS WD	J CHEM PHYS	14	480	1946	YIELDED 7 ENTRIES
46011	HARKINS WD	STEARNS RS		J CHEM PHYS	14	215	1946	NO ENTRIES
46012	KLEVENS HB			J CHEM PHYS	14	567	1946	YIELDED 2 ENTRIES
46013	HARKINS WD	MATTOON RW	CORRIN ML	J AM CHEM SOC	68	220	1946	NO ENTRIES
46014	HARKINS WD	MATTOON RW	CORRIN ML	J COLLOID SCI	1	105	1946	NO ENTRIES
46015	CORRIN ML	HARKINS WD		J COLLOID SCI	1	469	1946	YIELDED 37 ENTRIES
46016	GONICK E	MCBAIN JW		REC TRAV CHIM	65	601	1946	YIELDED 1 ENTRIES
46017	*STEARNS RS*	*HARKINS WD*		*J CHEM PHYS*	*14*	*214*	*1946*	*NO ENTRIES*
46018	EVERS EC	GRIEGER PF	KRAUS CA	J AM CHEM SOC	68	1137	1946	NO ENTRIES
46019	GONICK E			J AM CHEM SOC	68	177	1946	YIELDED 2 ENTRIES
46020	WALTON HF	HIEBERT EN	SHOLTES EH	J COLLOID SCI	1	385	1946	NO ENTRIES
46021	ADAM NK	PANKHURST KGA		TRANS FARADAY SOC	42	523	1946	NO ENTRIES
46022	MCBAIN JW	GREEN AA		J AM CHEM SOC	68	731	1946	NO ENTRIES
47001	BROWN GL KRAUS CA	GRIEGER PF	EVERS EC	J AM CHEM SOC	69	1835	1947	NO ENTRIES
47002	RALSTON AW	HOERR CW		J AM CHEM SOC	69	883	1947	NO ENTRIES
47003	RALSTON AW DU BROW PL	EGGENBERGER DN	HARWOOD HJ	J AM CHEM SOC	69	2095	1947	YIELDED 7 ENTRIES
47004	KLEVENS HB			J PHYS COLLOID CHEM	51	114	1947	YIELDED 27 ENTRIES
47005	KLEVENS HB			J COLLOID SCI	2	301	1947	YIELDED 19 ENTRIES
47006	HARKINS WD	CORRIN ML		J AM CHEM SOC	69	679	1947	YIELDED 14 ENTRIES
47007	GONICK E	MCBAIN JW		J AM CHEM SOC	69	334	1947	YIELDED 2 ENTRIES
47008	HARKINS WD	MATTOON RW	MITTELMANN R	J CHEM PHYS	15	763	1947	NO ENTRIES
47009	HARKINS WD			J AM CHEM SOC	69	1428	1947	NO ENTRIES
47010	CORRIN ML	HARKINS WD		J AM CHEM SOC	69	683	1947	YIELDED 106 ENTRIES
47011	VETTER RJ			J PHYS COLLOID CHEM	51	263	1947	YIELDED 2 ENTRIES
47012	STEARNS RS HARKINS WD	OPPENHEIMER H	SIMON E	J CHEM PHYS	15	496	1947	NO ENTRIES
47013	CARR CW	JOHNSON WF	KOLTHOFF IM	J PHYS COLLOID CHEM	51	636	1947	YIELDED 6 ENTRIES
48001	DAINTON FS			ANN REP PROGR CHEM (CH. S. LONDON)	45	5	1948	NO ENTRIES
48002	HARTLEY GS			ANN REP PROGR CHEM (CH. S. LONDON)	45	33	1948	NO ENTRIES
48003	WILLIAMS G	SINGER K		ANN REP PROGR CHEM (CH. S. LONDON)	45	51	1948	NO ENTRIES
48004	BRADY AP	HUFF H		J COLLOID SCI	3	511	1948	YIELDED 10 ENTRIES
48005	KLEVENS HB			J PHYS COLLOID CHEM	52	130	1948	YIELDED 68 ENTRIES
48006	DEBYE P			J COLLOID SCI	3	407	1948	NO ENTRIES
48007	NEFF LL LINGAFELTER EC	WHEELER OL	TARTAR HV	J AM CHEM SOC	70	1989	1948	YIELDED 1 ENTRIES
48008	WINSOR PA			TRANS FARADAY SOC	44	463	1948	YIELDED 23 ENTRIES
48009	CUSHMAN A	BRADY AP	MCBAIN JW	J COLLOID SCI	3	425	1948	YIELDED 5 ENTRIES
48010	GRIEGER PF	KRAUS CA		J AM CHEM SOC	70	3803	1948	YIELDED 7 ENTRIES
48011	FINEMAN MN	MCBAIN JW		J PHYS COLLOID CHEM	52	881	1948	YIELDED 10 ENTRIES
48012	GREGORY NW	TARTAR HV		J AM CHEM SOC	70	1992	1948	YIELDED 2 ENTRIES
48013	CORRIN ML			J COLLOID SCI	3	333	1948	NO ENTRIES
48014	RALSTON AW	EGGENBERGER DN	DU BROW PL	J AM CHEM SOC	70	977	1948	YIELDED 1 ENTRIES
48015	MCBAIN JW	MCHAN H		J AM CHEM SOC	70	3838	1948	NO ENTRIES
48016	KOLTHOFF IM	STRICKS W		J PHYS COLLOID CHEM	52	915	1948	YIELDED 19 ENTRIES
48017	ARKIN L	SINGLETERRY CR		J AM CHEM SOC	70	3965	1948	NO ENTRIES
48018	EXNER ML			NATURWISSENSCHAFTEN	35	344	1948	YIELDED 1 ENTRIES
48019	RALSTON AW	EGGENBERGER DN		J AM CHEM SOC	70	980	1948	NO ENTRIES
48020	RALSTON AW	EGGENBERGER DN		J AM CHEM SOC	70	2918	1948	YIELDED 9 ENTRIES
48021	RALSTON AW	EGGENBERGER DN		J AM CHEM SOC	70	983	1948	YIELDED 4 ENTRIES
48022	BRADY AP			J PHYS COLLOID CHEM	3	57	1948	YIELDED 2 ENTRIES
48023	RALSTON AW	EGGENBERGER DN		J PHYS COLLOID CHEM	52	1494	1948	YIELDED 9 ENTRIES
48024	MERRILL RC	GETTY R		J PHYS COLLOID CHEM	52	774	1948	YIELDED 76 ENTRIES
48025	KOLTHOFF IM	JOHNSON WF		J PHYS COLLOID CHEM	52	22	1948	YIELDED 6 ENTRIES
48026	MCBAIN JW	WILDER AG	MERRILL RC JR	J PHYS COLLOID CHEM	52	12	1948	NO ENTRIES
48027	RALSTON AW	EGGENBERGER DN		J AM CHEM SOC	70	436	1948	YIELDED 6 ENTRIES
48028	EVERS EC	KRAUS CA		J AM CHEM SOC	70	3049	1948	YIELDED 17 ENTRIES
49001	DEBYE P			ANN N Y ACAD SCI	51	575	1949	YIELDED 8 ENTRIES
49002	DEBYE P			J PHYS COLLOID CHEM	53	1	1949	NO ENTRIES
49003	KLEVENS HB			J AM OIL CHEMISTS SOC	26	456	1949	NO ENTRIES
49004	SHUCK GR	LINGAFELTER EC		J AM CHEM SOC	71	1325	1949	YIELDED 3 ENTRIES

Reference No.	Authors			Journal	Vol.	Pg.	Year	No. of Entries from Reference
49005	KOLTHOFF IM	STRICKS W		J PHYS COLLOID CHEM	53	424	1949	YIELDED 49 ENTRIES
49006	HARKINS WD	MITTELMANN R	CORRIN ML	J PHYS COLLOID CHEM	53	1350	1949	YIELDED 41 ENTRIES
49007	HARKINS WD	MITTELMANN R		J COLLOID SCI	4	367	1949	NO ENTRIES
49008	RALSTON AW	EGGENBERGER DN	BROOME FK	J AM CHEM SOC	71	2145	1949	YIELDED 45 ENTRIES
49009	RALSTON AW	EGGENBERGER DN	HARWOOD HJ	J AM CHEM SOC	71	672	1949	YIELDED 1 ENTRIES
49010	HARTLEY GS			NATURE	163	767	1949	NO ENTRIES
49011	HARKINS WD	OPPENHEIMER H		J AM CHEM SOC	71	808	1949	NO ENTRIES
49012	ARKIN L	SINGLETERRY CR		J COLLOID SCI	4	537	1949	NO ENTRIES
49013	RALSTON AW	BROOME FK	HARWOOD HJ	J AM CHEM SOC	71	671	1949	YIELDED 4 ENTRIES
49014	BROWN GL	GRIEGER PF	KRAUS CA	J AM CHEM SOC	71	95	1949	YIELDED 22 ENTRIES
49015	ADCOCK WA	COLE RH		J AM CHEM SOC	71	2835	1949	NO ENTRIES
49017	YOUNG HS	GRIEGER PF	KRAUS CA	J AM CHEM SOC	71	309	1949	YIELDED 15 ENTRIES
49018	GRIEGER PF	KRAUS CA		J AM CHEM SOC	71	1455	1949	YIELDED 2 ENTRIES
50001	DEBYE P			AN. R. SOC ESPAN FIS QUIM (MADRID)	46	335	1950	NO ENTRIES
50002	CARR CW WILLIAMS DE	KOLTHOFF IM	MEEHAN EJ	J POLYMER SCI	5	201	1950	NO ENTRIES
50003	KLEVENS HB			J PHYS COLLOID CHEM	54	1012	1950	YIELDED 30 ENTRIES
50004	KLEVENS HB			J AM CHEM SOC	72	3780	1950	NO ENTRIES
50005	CARR CW STERNBERG RJ	KOLTHOFF IM	MEEHAN EJ	J POLYMER SCI	5	191	1950	NO ENTRIES
50006	KLEVENS HB			ANAL CHEM	22	1141	1950	NO ENTRIES
50007	KLEVENS HB			CHEM REV	47	1	1950	NO ENTRIES
50008	HERZFELD SH	CORRIN ML	HARKINS WD	J PHYS COLLOID CHEM	54	271	1950	YIELDED 98 ENTRIES
50009	GOTTE E			KOLLOID-Z	117	42	1950	NO ENTRIES
50010	WEATHERBURN AS	ROSE GRF	BAYLEY CH	CAN J CHEM ENGR	F28	213	1950	NO ENTRIES
50011	HARKINS WD			SCI MONTHLY	70	220	1950	NO ENTRIES
50012	COLICHMAN EL			J AM CHEM SOC	72	4036	1950	YIELDED 38 ENTRIES
50013	KUHN DW	KRAUS CA		J AM CHEM SOC	72	3676	1950	NO ENTRIES
51001	DEBYE P	ANACKER EW		J PHYS COLLOID CHEM	55	644	1951	YIELDED 1 ENTRIES
51002	KOLTHOFF IM	JOHNSON WF		J AM CHEM SOC	73	4563	1951	NO ENTRIES
51003	LELONG ALM OLOANE JK	TARTAR HV CADLE RD	LINGAFELTER EC	J AM CHEM SOC	73	5411	1951	YIELDED 10 ENTRIES
51004	HUFF H	MCBAIN JW	BRADY AP	J PHYS COLLOID CHEM	55	311	1951	YIELDED 29 ENTRIES
51005	LANGE H			KOLLOID-Z	121	66	1951	YIELDED 94 ENTRIES
51006	EGGENBERGER DN	HARWOOD HJ		J AM CHEM SOC	73	3353	1951	YIELDED 8 ENTRIES
51007	SINGLETERRY CR	ARKIN L		J AM CHEM SOC	73	4574	1951	NO ENTRIES
51008	COLICHMAN EL			J AM CHEM SOC	73	3385	1951	YIELDED 15 ENTRIES
51009	MCDOWELL MJ	KRAUS CA		J AM CHEM SOC	73	2173	1951	YIELDED 5 ENTRIES
51010	HARKINS WD	KRIZEK H	CORRIN ML	J COLLOID SCI	6	576	1951	YIELDED 6 ENTRIES
51011	HENNE AL	FOX CJ		J AM CHEM SOC	73	2323	1951	NO ENTRIES
51012	SCOTT R	BOLAM TR		NATURE	167	195	1951	NO ENTRIES
51013	DAGGETT HM JR	BAIR EJ	KRAUS CA	J AM CHEM SOC	73	799	1951	NO ENTRIES
51014	BAIR EJ	KRAUS CA		J AM CHEM SOC	73	1129	1951	NO ENTRIES
51016	MCDOWELL MJ	KRAUS CA		J AM CHEM SOC	73	2170	1951	NO ENTRIES
51017	SHISHIDO S			BULL CHEM SOC JAPAN	24	41	1951	NO ENTRIES
51018	NAKAGAKI M			J CHEM SOC JAPAN, PURE CHEM SEC	72	113	1951	NO ENTRIES
52001	CELLA JA HARRIMAN LA	EGGENBERGER DN HARWOOD HJ	NOEL DR	J AM CHEM SOC	74	2061	1952	YIELDED 14 ENTRIES
52002	KOLTHOFF IM	JOHNSON WF		J AM CHEM SOC	74	20	1952	NO ENTRIES
52003	JOHNSON WF	KOLTHOFF IM		J AM CHEM SOC	74	22	1952	NO ENTRIES
52004	KLEVENS HB			MEM SERV CHIM ETAT (PARIS)	37	13	1952	NO ENTRIES
52005	KLEVENS HB			J AM CHEM SOC	74	4624	1952	NO ENTRIES
52006	EKWALL P	SMEDS K		ACTA CHEM SCAND	6	441	1952	NO ENTRIES
52007	EKWALL P	HASAN A	DANIELSSON I	ACTA CHEM SCAND	6	440	1952	NO ENTRIES
52008	KLEVENS HB			KOLLOID-Z	128	61	1952	NO ENTRIES
52009	WINSOR PA			J PHYS CHEM	56	391	1952	NO ENTRIES
52011	BURY CR	BROWNING J		TRANS FARADAY SOC	48	209	1952	YIELDED 3 ENTRIES
52013	BROWN AS THIBAULT HG	ROBINSON RU MCNEILL W	SIROIS EH TOFIAS A	J PHYS CHEM	56	701	1952	YIELDED 3 ENTRIES
52014	MEADER AL	FRIES BA		IND ENG CHEM	44	1636	1952	NO ENTRIES
52015	HERZFELD SH			J PHYS CHEM	56	953	1952	YIELDED 20 ENTRIES
52016	RAISON M			COMPT REND	235	1129	1952	YIELDED 10 ENTRIES
52017	HERZFELD SH			J PHYS CHEM	56	959	1952	YIELDED 108 ENTRIES
52018	YURZHENKO AI	KUCHER RV		COLLOID J (USSR)	14	243	1952	YIELDED 3 ENTRIES
52019	YURZHENKO AI	KUCHER RV		COLLOID J (USSR)	14	311	1952	NO ENTRIES
53001	TAMAMUSHI B	NAKADATE S		REP INST SCI TECH UNIV TOKYO	7	401	1953	YIELDED 2 ENTRIES
53002	ANACKER EW			J COLLOID SCI	8	402	1953	YIELDED 5 ENTRIES
53003	ARRINGTON CH	PATTERSON GD		J PHYS CHEM	57	247	1953	YIELDED 13 ENTRIES
53004	FLOCKHART BD	GRAHAM H		J COLLOID SCI	8	105	1953	YIELDED 5 ENTRIES
53005	LANGE H			KOLLOID-Z	131	96	1953	YIELDED 21 ENTRIES
53006	SATA N	TYUZYO K		BULL CHEM SOC JAPAN	26	177	1953	YIELDED 11 ENTRIES
53007	ROSS S	KWARTLER CE	BAILEY JH	J COLLOID SCI	8	385	1953	YIELDED 19 ENTRIES
53008	FLOCKHART BD	UBBELOHDE AR		J COLLOID SCI	8	424	1953	YIELDED 29 ENTRIES
53009	KUSHNER LM	HUBBARD WD		J PHYS CHEM	57	808	1953	NO ENTRIES
53010	KLEVENS HB			J AM OIL CHEMISTS SOC	30	74	1953	YIELDED 31 ENTRIES
53011	KRAUS CA			PROC NAT ACAD SCI U S	39	1213	1953	NO ENTRIES
53012	GODDARD ED	HARVA O	JONES TG	TRANS FARADAY SOC	49	980	1953	YIELDED 61 ENTRIES
53013	LAL H			J COLLOID SCI	8	414	1953	NO ENTRIES
53014	SCHOLBERG HM	GUENTHNER RA	COON RI	J PHYS CHEM	57	923	1953	NO ENTRIES
53015	YANG JT	FOSTER JF		J PHYS CHEM	57	628	1953	YIELDED 2 ENTRIES

Reference No.	Authors			Journal	Vol.	Pg.	Year	No. of Entries from Reference
54001	PILPEL N			J COLLOID SCI	9	285	1954	NO ENTRIES
54002	KUSHNER LM	HUBBARD WD		J PHYS CHEM	58	1163	1954	NO ENTRIES
54003	SHINODA K			J PHYS CHEM	58	1136	1954	YIELDED 57 ENTRIES
54004	KLEVENS HB	RAISON M		PROC INTERN CONGR SURFACE ACTIVITY	1ST	1	1954	YIELDED 25 ENTRIES
54005	SHINODA K			J PHYS CHEM	58	541	1954	YIELDED 139 ENTRIES
54006	MARON SH	ELDER ME	ULEVITCH IN	J COLLOID SCI	9	382	1954	YIELDED 10 ENTRIES
54007	GOTTE E			FETTE, SEIFEN, ANSTRICHMI	56	583	1954	NO ENTRIES
54008	OKUYAMA H	TYUZYO K		BULL CHEM SOC JAPAN	27	259	1954	YIELDED 3 ENTRIES
54009	HONIG JG	SINGLETERRY CR		J PHYS CHEM	58	201	1954	NO ENTRIES
54010	KLEVENS HB	RAISON M		J CHIM PHYS	51	1	1954	YIELDED 25 ENTRIES
54011	COHEN I	HISKEY CF	OSTER G	J COLLOID SCI	9	243	1954	NO ENTRIES
54012	HUTCHINSON E	MANCHESTER KE	WINSLOW L	J PHYS CHEM	58	1124	1954	NO ENTRIES
54013	ROE CP	BRASS PD		J AM CHEM SOC	76	4703	1954	YIELDED 4 ENTRIES
54014	HUBBARD HM	REYNOLDS CA		J AM CHEM SOC	76	4300	1954	NO ENTRIES
54015	HIGUCHI T	LACH JL		J AM PHARM ASSOC	43	465	1954	NO ENTRIES
55001	HERMANS JJ			KONINKI NED AKAD WETEN. PROC SER B	58	91	1955	NO ENTRIES
55002	PRINS W	HERMANS JJ		J PHYS CHEM	59	576	1955	NO ENTRIES
55003	KUSHNER LM	HUBBARD WD		J COLLOID SCI	10	428	1955	YIELDED 6 ENTRIES
55004	SHINODA K			BULL FAC ENG, YOKOHAMA NAT UNIV	4	77	1955	YIELDED 167 ENTRIES
55005	WILLIAMS RJ	PHILLIPS JN	MYSELS KJ	TRANS FARADAY SOC	51	728	1955	YIELDED 17 ENTRIES
55006	VOEKS JF	TARTAR HV		J PHYS CHEM	59	1190	1955	YIELDED 2 ENTRIES
55007	SHINODA K			J PHYS CHEM	59	432	1955	YIELDED 39 ENTRIES
55008	LIN W			BULL CHEM SOC JAPAN	28	227	1955	YIELDED 20 ENTRIES
55009	TRAP HJL	HERMANS JJ		KONINKI NED AKAD WETEN. PROC SER B	58	97	1955	YIELDED 34 ENTRIES
55010	SHIRAI M	TAMAMUSHI B		BULL CHEM SOC JAPAN	28	545	1955	NO ENTRIES
55011	GODDARD ED	JONES TG		RES CORRESPONDENCE	8	1	1955	NO ENTRIES
55012	ABBOTT AD	TARTAR HV		J PHYS CHEM	59	1193	1955	NO ENTRIES
55013	TARTAR HV			J PHYS CHEM	59	1195	1955	NO ENTRIES
55014	PHILLIPS JN	MYSELS KJ		J PHYS CHEM	59	325	1955	NO ENTRIES
55015	MUKERJEE P	MYSELS KJ		J AM CHEM SOC	77	2937	1955	YIELDED 8 ENTRIES
55016	MYSELS KJ			J COLLOID SCI	10	507	1955	NO ENTRIES
55017	KLEVENS HB			NATURE	176	879	1955	NO ENTRIES
55018	GODDARD ED	HIGHAM EH	STEWART JC	RES CORRESPONDENCE	7	1	1955	YIELDED 2 ENTRIES
55019	KITAHARA A			BULL CHEM SOC JAPAN	28	234	1955	NO ENTRIES
55020	HSIAO L	DUNNING HN		J PHYS CHEM	59	362	1955	NO ENTRIES
55021	TARTAR HV	LELONG ALM		J PHYS CHEM	59	1185	1955	YIELDED 11 ENTRIES
55022	FULLER GW			J COLLOID SCI	10	403	1955	NO ENTRIES
55023	MCBAIN MEL			J COLLOID SCI	10	223	1955	NO ENTRIES
55024	PHILLIPS JN			TRANS FARADAY SOC	51	561	1955	NO ENTRIES
55025	ERIKSON JA	LINGAFELTER EC		J COLLOID SCI	10	71	1955	NO ENTRIES
55026	GRIESS W			FETTE, SEIFEN, ANSTRICHMI	57	236	1955	NO ENTRIES
55027	GRIESS W			FETTE, SEIFEN, ANSTRICHMI	57	168	1955	NO ENTRIES
55028	GRIESS W			FETTE, SEIFEN, ANSTRICHMI	57	24	1955	YIELDED 15 ENTRIES
56001	KLEVENS HB	CARR CW		J PHYS CHEM	60	1245	1956	YIELDED 25 ENTRIES
56002	DORST W	PRINS W	HERMANS JJ	KONINKI NED AKAD WETEN. PROC SER B	59	190	1956	YIELDED 20 ENTRIES
56003	SHINODA K			J PHYS CHEM	60	1439	1956	YIELDED 5 ENTRIES
56004	PILPEL N			J PHYS CHEM	60	779	1956	NO ENTRIES
56005	LUDLUM DB			J PHYS CHEM	60	1240	1956	YIELDED 6 ENTRIES
56006	EVANS HC			J CHEM SOC		579	1956	YIELDED 32 ENTRIES
56007	PRINS W	HERMANS JJ		KONINKI NED AKAD WETEN. PROC SER B	59	162	1956	NO ENTRIES
56008	WEIL JK	STIRTON AJ		J PHYS CHEM	60	899	1956	YIELDED 31 ENTRIES
56009	SHIRAI M	TAMAMUSHI B		BULL CHEM SOC JAPAN	29	733	1956	NO ENTRIES
56010	KLEVENS HB	VERGNOLLE J		MEM SERV CHIM ETAT (PARIS)	41	363	1956	YIELDED 5 ENTRIES
56011	PRINS W	HERMANS JJ		KONINKI NED AKAD WETEN. PROC SER B	59	298	1956	YIELDED 13 ENTRIES
56012	HONIG JG	SINGLETERRY CR		J PHYS CHEM	60	1108	1956	NO ENTRIES
56013	HONIG JG	SINGLETERRY CR		J PHYS CHEM	60	1114	1956	NO ENTRIES
56014	HSIAO L	DUNNING HN	LORENZ PB	J PHYS CHEM	60	657	1956	YIELDED 25 ENTRIES
56015	KITAHARA A			BULL CHEM SOC JAPAN	29	15	1956	NO ENTRIES
56016	FAVA A	EYRING H		J PHYS CHEM	60	890	1956	YIELDED 3 ENTRIES
56017	ZUTRAUEN HA			J CHIM PHYS	53	62	1956	NO ENTRIES
56018	HARVA O			REC TRAV CHIM	75	112	1956	YIELDED 43 ENTRIES
56019	ADDISON CC	FURMIDGE CGL		J CHEM SOC		3229	1956	YIELDED 13 ENTRIES
56020	MEGURO K	KONDO T	YODA O	J CHEM SOC JAPAN, PURE CHEM SEC	77	1236	1956	YIELDED 10 ENTRIES
57001	MATIJEVIC E	PETHICA BA		CROAT CHEM ACTA	29	431	1957	NO ENTRIES
57002	GODDARD ED	HOEVE CAJ	BENSON GC	J PHYS CHEM	61	593	1957	NO ENTRIES
57003	KUSHNER LM	HUBBARD WD	DOAN AS	J PHYS CHEM	61	371	1957	NO ENTRIES
57004	HOYER HW	GREENFIELD A		J PHYS CHEM	61	818	1957	YIELDED 5 ENTRIES
57005	LIN W			J CHINESE CHEM SOC	4	28	1957	YIELDED 2 ENTRIES
57006	KUSHNER LM	HUBBARD WD	PARKER RA	J RES NAT BUR STD A	59	113	1957	YIELDED 19 ENTRIES
57007	CARRINGTON RAG	EVANS HC		J CHEM SOC		1701	1957	NO ENTRIES
57008	LIN W			J CHINESE CHEM SOC	4	21	1957	NO ENTRIES
57009	WILLIAMS EF	WOODBERRY N	DIXON JK	J COLLOID SCI	12	452	1957	YIELDED 6 ENTRIES
57010	ROSS S	HUDSON JB		J COLLOID SCI	12	523	1957	YIELDED 1 ENTRIES
57011	GODDARD ED	BENSON GC		CAN J CHEM	35	986	1957	YIELDED 30 ENTRIES
57012	GERSHMAN JW			J PHYS CHEM	61	581	1957	YIELDED 17 ENTRIES
57013	FLOCKHART BD			J COLLOID SCI	12	557	1957	YIELDED 33 ENTRIES
57014	SCHICK MJ	FOWKES FM		J PHYS CHEM	61	1062	1957	YIELDED 57 ENTRIES
57015	SHIRAI M	TAMAMUSHI B		BULL CHEM SOC JAPAN	30	411	1957	NO ENTRIES
57016	SHIRAI M	TAMAMUSHI B		BULL CHEM SOC JAPAN	30	542	1957	YIELDED 1 ENTRIES
57017	KLEVENS HB	VERGNOLLE J		PROC INTERN CONGR SURFACE ACTIVITY	2ND	395	1957	YIELDED 14 ENTRIES

Reference No.	Authors			Journal	Vol.	Pg.	Year	No. of Entries from Reference
57018	NAKAGAWA T	KURIYAMA K		J CHEM SOC JAPAN, PURE CHEM SEC	78	1568	1957	NO ENTRIES
57019	NAKAGAWA T	INOUE H		J CHEM SOC JAPAN, PURE CHEM SEC	78	636	1957	NO ENTRIES
57020	NAKAGAWA T	KURIYAMA K	TORI K	J CHEM SOC JAPAN, PURE CHEM SEC	78	1573	1957	YIELDED 22 ENTRIES
57021	HUTCHINSON E	WINSLOW L		Z PHYSIK CHEM (FRANKFURT)	11	165	1957	YIELDED 8 ENTRIES
57022	LANGE H	KLING W		PROC INTERN CONGR SURFACE ACTIVITY	2ND	295	1957	YIELDED 15 ENTRIES
57023	SASAKI H	SAITO S	OKUYAMA H	BULL CHEM SOC JAPAN	30	186	1957	NO ENTRIES
57024	OSIPOW L	SNELL FD	HICKSON J	PROC INTERN CONGR SURFACE ACTIVITY	2ND		1957	YIELDED 2 ENTRIES
57025	MIURA M	MATSUMOTO T		J SCI HIROSHIMA UNIV, SER A-II	21	51	1957	YIELDED 5 ENTRIES
57026	KAUFMAN S	SINGLETERRY CR		J COLLOID SCI	12	465	1957	NO ENTRIES
57027	KITAHARA A			J COLLOID SCI	12	342	1957	NO ENTRIES
57028	KITAHARA A			BULL CHEM SOC JAPAN	30	586	1957	NO ENTRIES
57029	KITAHARA A			BULL CHEM SOC JAPAN	31	288	1957	NO ENTRIES
57030	SASAKI H			BULL CHEM SOC JAPAN	30	326	1957	NO ENTRIES
57031	ROSS S	BRAMFITT TH		J PHYS CHEM	61	1261	1957	YIELDED 18 ENTRIES
57032	MEGURO K	KONDO T	OHBA N	BULL CHEM SOC JAPAN	30	905	1957	NO ENTRIES
57033	MEGURO K INO T	KONDO T YODA O	OHBA N	BULL CHEM SOC JAPAN	30	760	1957	NO ENTRIES
58001	MILLER ML	DIXON JK		J COLLOID SCI	13	411	1958	YIELDED 7 ENTRIES
58002	HARRIS JC			SOAP CHEM SPECIALTIES	1958		1958	NO ENTRIES
58003	WEIL JK	BISTLINE RG	STIRTON AJ	J PHYS CHEM	62	1083	1958	YIELDED 20 ENTRIES
58004	HARRIS JC			J AM OIL CHEMISTS SOC	35	670	1958	YIELDED 1 ENTRIES
58005	WHITE P	BENSON GC		J COLLOID SCI	13	584	1958	NO ENTRIES
58006	WHITE P	MOULE D	BENSON GC	TRANS FARADAY SOC	54	1638	1958	NO ENTRIES
58007	TAMAMUSHI B	SHIRAI M	TAMAKI K	BULL CHEM SOC JAPAN	31	467	1958	YIELDED 10 ENTRIES
58008	GINN ME	HARRIS JC		J PHYS CHEM	62	1554	1958	YIELDED 18 ENTRIES
58009	ANACKER EW			J PHYS CHEM	62	41	1958	YIELDED 7 ENTRIES
58010	HARRIS JC			J AM OIL CHEMISTS SOC	35	428	1958	NO ENTRIES
58011	KLEVENS HB			KOLLOID-Z	158	53	1958	YIELDED 20 ENTRIES
58012	HAYDON DA	PHILLIPS JN		TRANS FARADAY SOC	54	698	1958	YIELDED 2 ENTRIES
58013	MUKERJEE P	MYSELS KJ	DULIN CI	J PHYS CHEM	62	1390	1958	NO ENTRIES
58014	MUKERJEE P			J PHYS CHEM	62	1397	1958	NO ENTRIES
58015	MUKERJEE P	MYSELS KJ		J PHYS CHEM	62	1400	1958	NO ENTRIES
58016	MUKERJEE P			J PHYS CHEM	62	1404	1958	NO ENTRIES
58017	NAKAGAWA T			SHINOGI KENKYUSHO NEMPO	8	805	1958	YIELDED 9 ENTRIES
58018	NAKAGAWA T OYAMA T	INOUE H	KURIYAMA K	J CHEM SOC JAPAN, PURE CHEM SEC	79	348	1958	NO ENTRIES
58019	NAKAGAWA T OYAMA T	INOUE H	KURIYAMA K	J CHEM SOC JAPAN, PURE CHEM SEC	79	345	1958	NO ENTRIES
58020	MATIJEVIC E	PETHICA BA		TRANS FARADAY SOC	54	587	1958	YIELDED 9 ENTRIES
58021	KASHIWAGI KM			J COLLOID SCI	13	618	1958	YIELDED 2 ENTRIES
58022	KITAHARA A			BULL CHEM SOC JAPAN	31	653	1958	NO ENTRIES
58023	MIURA M	ARISHI S		J SCI HIROSHIMA UNIV, SER A-II	22	57	1958	YIELDED 9 ENTRIES
58024	BASCOM WD	SINGLETERRY CR		J COLLOID SCI	13	569	1958	NO ENTRIES
58025	KAUFMAN S	SINGLETERRY CR		J PHYS CHEM	62	1257	1958	NO ENTRIES
58026	TYUZYO K			BULL CHEM SOC JAPAN	31	117	1958	NO ENTRIES
58027	NASH T			CHEM IND (LONDON)		590	1958	NO ENTRIES
58028	NAKAGAWA T KURIYAMA K	INOUE H	KAZUO T	J CHEM SOC JAPAN, PURE CHEM SEC	79	48	1958	YIELDED 8 ENTRIES
58029	SAWYER WM	FOWKES FM		J PHYS CHEM	62	159	1958	NO ENTRIES
58030	MARKAN AL	KRIUENTSOV WI		ZAVODSKAYA LAB	24	158	1958	NO ENTRIES
58031	FEW A	GILBY A	OTTEWILL RH	J CHEM SOC		1712	1958	YIELDED 1 ENTRIES
59001	HARROLD SP			J PHYS CHEM	63	317	1959	YIELDED 3 ENTRIES
59002	MYSELS KJ	PRINCEN LH		J PHYS CHEM	63	1696	1959	YIELDED 4 ENTRIES
59003	PRINCEN LH	MYSELS KJ		J PHYS CHEM	63	1781	1959	NO ENTRIES
59004	WEIL JK MAURER EW	STIRTON AJ	BISTLINE RG	J AM OIL CHEMISTS SOC	36	241	1959	YIELDED 19 ENTRIES
59005	BECHER P	CLIFTON NK		J COLLOID SCI	14	519	1959	YIELDED 1 ENTRIES
59006	BECHER P			J PHYS CHEM	63	1675	1959	YIELDED 22 ENTRIES
59007	MOULE D	BENSON GC		CAN J CHEM	37	2083	1959	YIELDED 4 ENTRIES
59008	MOULE D	WHITE P	BENSON GC	CAN J CHEM	37	2086	1959	YIELDED 2 ENTRIES
59009	GINN ME	KINNEY FB	HARRIS JC	J AM OIL CHEMISTS SOC	36	332	1959	YIELDED 23 ENTRIES
59010	TARTAR HV			J COLLOID SCI	14	115	1959	YIELDED 2 ENTRIES
59011	WESTWELL AE	ANACKER EW		J PHYS CHEM	63	1022	1959	NO ENTRIES
59012	WHITE P	BENSON GC		TRANS FARADAY SOC	55	1025	1959	YIELDED 9 ENTRIES
59013	SHINODA K	YAMANAKA T	KINOSHITA K	J PHYS CHEM	63	648	1959	YIELDED 3 ENTRIES
59014	ASCOLI F MELE A	BOTRE C	CRESCENZI V	NATURE	184	1482	1959	NO ENTRIES
59015	BOTRE C MELE A	CRESCENZI VL	LIQUORI AM	TRANS FARADAY SOC	55	1975	1959	YIELDED 2 ENTRIES
59016	BOTRE C	CRESCENZI VL	MELE A	J PHYS CHEM	63	650	1959	YIELDED 6 ENTRIES
59017	KASHIWAGI M	EZAKI H		BULL CHEM SOC JAPAN	32	624	1959	YIELDED 4 ENTRIES
59018	HUTCHINSON E			Z PHYSIK CHEM (FRANKFURT)	21	38	1959	YIELDED 6 ENTRIES
59019	FUERSTENAU DW	MODI HJ		J ELECTROCHEM SOC	106	336	1959	NO ENTRIES
59020	ROSS S	OLIVIER JP		J PHYS CHEM	63	1671	1959	YIELDED 7 ENTRIES
59021	BASCOM WD	KAUFMAN S	SINGLETERRY CR	WORLD PETROL CONGR, PROC	V 6	18	1959	NO ENTRIES
59022	KOLBEL H	KUHN P		ANGEW CHEM	71	211	1959	NO ENTRIES
59023	HOLLAHAN JR	CADY GH		J PHYS CHEM	63	757	1959	YIELDED 1 ENTRIES
59024	MEGURO K	KONDO T		J CHEM SOC JAPAN, PURE CHEM SEC	80	818	1959	YIELDED 11 ENTRIES
59025	MEGURO K	KONDO T		J CHEM SOC JAPAN, PURE CHEM SEC	80	821	1959	NO ENTRIES
59026	MEGURO K	KONDO T		J CHEM SOC JAPAN, PURE CHEM SEC	80	823	1959	YIELDED 9 ENTRIES
60001	VEIS A	HOERR CW		J COLLOID SCI	15	427	1960	YIELDED 2 ENTRIES

Reference No.	Authors			Journal	Vol.	Pg.	Year	No. of Entries from Reference
60002	WHITE P	BENSON GC		J PHYS CHEM	64	599	1960	YIELDED 4 ENTRIES
60003	BECHER P			J PHYS CHEM	64	1221	1960	NO ENTRIES
60004	HARROLD SP			J COLLOID SCI	15	280	1960	YIELDED 2 ENTRIES
60005	CARTAN F	ANACKER EW		J CHEM EDUC	37	36	1960	YIELDED 2 ENTRIES
60006	NAKAGAWA T	KURIYAMA K	INOUE H	J COLLOID SCI	15	268	1960	YIELDED 20 ENTRIES
60007	NAKAGAWA T			PROC INTERN CONGR SURFACE ACTIVITY	3RD	636	1960	NO ENTRIES
60008	WEIL JK AULT WC	STIRTON AJ	BISTLINE RG	J AM OIL CHEMISTS SOC	37	679	1960	YIELDED 9 ENTRIES
60009	NAKAGAWA T	TORI K		KOLLOID-Z	168	132	1960	NO ENTRIES
60010	GINN ME	KINNEY FB	HARRIS JC	J AM OIL CHEMISTS SOC	37	183	1960	YIELDED 78 ENTRIES
60011	HAYDON DA	TAYLOR FH		PHIL TRANS ROY SOC LONDON, SER A	252	225	1960	YIELDED 8 ENTRIES
60012	LANGE H			PROC INTERN CONGR SURFACE ACTIVITY	3RD	279	1960	YIELDED 7 ENTRIES
60013	V VOORST VA.F			PROC INTERN CONGR SURFACE ACTIVITY	3RD	276	1960	NO ENTRIES
60014	V VOORST VA.F			TRANS FARADAY SOC	56	1078	1960	NO ENTRIES
60015	FARREIRA HC			ANAIS ACAD BRASIL CIENC	32	207	1960	YIELDED 4 ENTRIES
60016	KOLBEL H	KLAMANN D	KURZENDORFER P	PROC INTERN CONGR SURFACE ACTIVITY	3RD	1	1960	NO ENTRIES
60017	KOLBEL H	KLAMANN D	WAGNER E	PROC INTERN CONGR SURFACE ACTIVITY	3RD	27	1960	YIELDED 3 ENTRIES
60018	GOTTE E			PROC INTERN CONGR SURFACE ACTIVITY	3RD	45	1960	YIELDED 20 ENTRIES
60019	DERVICHIAN DG			PROC INTERN CONGR SURFACE ACTIVITY	3RD	182	1960	NO ENTRIES
60020	JAMES JW	PETHICA BA		PROC INTERN CONGR SURFACE ACTIVITY	3RD	227	1960	YIELDED 1 ENTRIES
60021	STANLEY JS	RADLEY JA		PROC INTERN CONGR SURFACE ACTIVITY	3RD	246	1960	YIELDED 3 ENTRIES
60022	V VOORST VA.F	V DEN TEMPEL M		PROC INTERN CONGR SURFACE ACTIVITY	3RD	248	1960	NO ENTRIES
60023	LUCK W			PROC INTERN CONGR SURFACE ACTIVITY	3RD	264	1960	NO ENTRIES
60024	BOTRE C	CRESCENZI V	LIQUORI AM	PROC INTERN CONGR SURFACE ACTIVITY	3RD	302	1960	YIELDED 3 ENTRIES
60025	V VOORST VA.F			TRANS FARADAY SOC	56	1067	1960	YIELDED 9 ENTRIES
60026	HUCO WB	NEWTON JM		J PHARM PHARMACOL	12	447	1960	YIELDED 2 ENTRIES
60027	ELWORTHY PH			J PHARM PHARMACOL	012	293	1960	YIELDED 9 ENTRIES
60028	BISWAS AK	MUKHERJI BK		J PHYS CHEM	64	1	1960	YIELDED 11 ENTRIES
60029	MIYAMOTO S			BULL CHEM SOC JAPAN	33	375	1960	YIELDED 25 ENTRIES
60030	BESPYATOV MP	LESHCHENKO ZY		MASLOB ZHIR PROM	26	24	1960	NO ENTRIES
60031	BESPYATOV MP	OLEINIKOVA ZV		MASLOB ZHIR PROM	26	26	1960	NO ENTRIES
60032	DEMCHENKO PA	DUMANSKII AV		DOKLADY AKAD NAUK SSSR	131	120	1960	YIELDED 2 ENTRIES
60033	TAUBMAN AB	KONSTANTIN. VV	KRYUKOVA AS	KHIM TEKHNOL	5	61	1960	YIELDED 28 ENTRIES
60034	DEMCHENKO PA			MASLOB ZHIR PROM	26	26	1960	YIELDED 4 ENTRIES
60035	MIYAMOTO S			BULL CHEM SOC JAPAN	33	371	1960	NO ENTRIES
61001	HOYER HW	MARMO A	ZOELLNER M	J PHYS CHEM	65	1804	1961	YIELDED 2 ENTRIES
61002	HOYER HW	MARMO A		J PHYS CHEM	65	1807	1961	YIELDED 8 ENTRIES
61003	BECHER P			J COLLOID SCI	16	49	1961	YIELDED 7 ENTRIES
61004	CORKILL JM	GOODMAN JF	OTTEWILL RH	TRANS FARADAY SOC	57	1627	1961	YIELDED 6 ENTRIES
61005	MYSELS KJ	KAPAUAN P		J COLLOID SCI	16	481	1961	YIELDED 5 ENTRIES
61006	HARRIS JC	SATANEK J		J AM OIL CHEMISTS SOC	38	169	1961	NO ENTRIES
61007	FLOCKHART BD			J COLLOID SCI	16	484	1961	YIELDED 83 ENTRIES
61008	SHINODA K	YAMAGUCHI T	HORI R	BULL CHEM SOC JAPAN	34	237	1961	YIELDED 11 ENTRIES
61009	MARUTA I	TOKIWA F		J CHEM SOC JAPAN, PURE CHEM SEC	82	1657	1961	NO ENTRIES
61010	MARUTA I SAITO T	SAKAI T	TOKIWA F	J CHEM SOC JAPAN, PURE CHEM SEC	82	1512	1961	NO ENTRIES
61011	MARUTA I	TOKIWA F		J CHEM SOC JAPAN, PURE CHEM SEC	82	1660	1961	NO ENTRIES
61012	ISEMURA T NOGUCHI J	IKEDA S	TOKIWA F	BULL CHEM SOC JAPAN	34	1236	1961	NO ENTRIES
61013	PILPEL N			TRANS FARADAY SOC	57	1426	1961	NO ENTRIES
61014	GINN ME	HARRIS JC		J AM OIL CHEMISTS SOC	38	605	1961	YIELDED 16 ENTRIES
61015	GINN ME	KINNEY FB	HARRIS JC	J AM OIL CHEMISTS SOC	38	138	1961	YIELDED 21 ENTRIES
61016	BRUNING W	HOLTZER A		J AM CHEM SOC	83	4865	1961	YIELDED 4 ENTRIES
61017	MYSELS KJ	OTTER RJ		J COLLOID SCI	16	462	1961	YIELDED 13 ENTRIES
61018	MYSELS KJ	OTTER RJ		J COLLOID SCI	16	474	1961	NO ENTRIES
61019	GINN ME	BROWN EL	HARRIS JC	J AM OIL CHEMISTS SOC	38	361	1961	NO ENTRIES
61022	NAKAGAWA T			CHEM IND (LONDON)	14	1135	1961	NO ENTRIES
61023	ASCOLI F	BOTRE C	LIQUORI AM	J MOL BIOL	3	202	1961	NO ENTRIES
61024	ASCOLI F	BOTRE C	LIQUORI AM	J PHYS CHEM	65	1991	1961	NO ENTRIES
61025	TYUZYO K			KOLLOID-Z	175	40	1961	YIELDED 2 ENTRIES
61026	V VOORST VA.F			TRANS FARADAY SOC	57	110	1961	YIELDED 5 ENTRIES
61027	COHEN I	VASSILIADES T		J PHYS CHEM	65	1781	1961	YIELDED 2 ENTRIES
61028	COHEN I	VASSILIADES T		J PHYS CHEM	65	1774	1961	NO ENTRIES
61029	ANGELESCU E.	NICOLESCU A	BARBULESCU EM	REV CHIM AC.REP POP.ROUM.	6	309	1961	YIELDED 6 ENTRIES
61030	DEMCHENKO PA			KOLLOID ZH	23	528	1961	YIELDED 4 ENTRIES
61031	DEMCHENKO PA			DOPOV. AKAD NAUK UKR RSR		928	1961	YIELDED 19 ENTRIES
61032	DEMCHENKO PA			UKR KHIM ZH	27	322	1961	NO ENTRIES
61033	DEMCHENKO PA			MASLOB ZHIR PROM	27	19	1961	NO ENTRIES
62001	BECHER P			J PHYS CHEM	66	374	1962	YIELDED 6 ENTRIES
62002	BECHER P			J COLLOID SCI	17	325	1962	YIELDED 27 ENTRIES
62003	DEBYE P	COLL H		J COLLOID SCI	17	220	1962	NO ENTRIES
62004	HAYDON DA	TAYLOR FH		TRANS FARADAY SOC	58	1233	1962	YIELDED 16 ENTRIES
62005	HERRMANN KW			J PHYS CHEM	66	295	1962	YIELDED 12 ENTRIES
62006	CORKILL JM	GOODMAN JF		TRANS FARADAY SOC	58	206	1962	YIELDED 12 ENTRIES
62007	MARUTA I	TOKIWA F		J CHEM SOC JAPAN, PURE CHEM SEC	83	732	1962	NO ENTRIES
62008	STIRTON AJ AULT WC	BISTLINE RG	WEIL JK	J AM OIL CHEMISTS SOC	39	55	1962	YIELDED 13 ENTRIES
62009	KURIYAMA K			KOLLOID-Z	180	55	1962	YIELDED 49 ENTRIES
62010	KURIYAMA K	INOUE H	NAKAGAWA T	KOLLOID-Z	183	68	1962	YIELDED 22 ENTRIES
62011	KURIYAMA K			KOLLOID-Z	181	144	1962	YIELDED 20 ENTRIES
62012	TOKIWA F	ISEMURA T		BULL CHEM SOC JAPAN	35	1737	1962	NO ENTRIES

Reference No.	Authors			Journal	Vol.	Pg.	Year	No. of Entries from Reference
62013	BALMBRA RR GOODMAN JF	CLUNIE JS	CORKILL JM	TRANS FARADAY SOC	58	1661	1962	NO ENTRIES
62014	TARTAR HV			J COLLOID SCI	17	243	1962	NO ENTRIES
62015	MULLEY BA	METCALF AD		J COLLOID SCI	17	523	1962	YIELDED 4 ENTRIES
62016	HUTCHINSON E	SHAFFER PM		Z PHYSIK CHEM (FRANKFURT)	31	397	1962	NO ENTRIES
62017	BOTRE C	SCIBONA G		ANN CHIM (ROME)	52	1199	1962	NO ENTRIES
62018	LANGE H			FETTE, SEIFEN, ANSTRICHMI	64	457	1962	NO ENTRIES
62019	SCHICK MJ			J COLLOID SCI	17	801	1962	YIELDED 71 ENTRIES
62020	SCHICK MJ	ATLAS SM	EIRICH FR	J PHYS CHEM	66	1326	1962	YIELDED 14 ENTRIES
62021	LIQUORI AM	ASCOLI F	BOTRE C	PONTIF ACAD SCIENTIAR. SCRIPTA VAR.	22	/12/1	1962	NO ENTRIES
62022	ISEMURA T	TOKIWA F	IKEDA S	BULL CHEM SOC JAPAN	35	240	1962	NO ENTRIES
62023	WACHS W	HAYANO S		KOLLOID-Z	181	139	1962	YIELDED 6 ENTRIES
62024	KITAHARA A	KOBAYASHI T	TACHIBANA T	J PHYS CHEM	66	363	1962	NO ENTRIES
62025	KAUFMAN S			J COLLOID SCI	17	231	1962	NO ENTRIES
62026	MARUTA I			J CHEM SOC JAPAN, PURE CHEM SEC	83	786	1962	NO ENTRIES
62027	ELWORTHY PH	MACFARLANE CB		J PHARM PHARMACOL	14	100	1962	YIELDED 6 ENTRIES
62028	MARUTA I			J CHEM SOC JAPAN, PURE CHEM SEC	83	395	1962	NO ENTRIES
62029	MARUTA I			J CHEM SOC JAPAN, PURE CHEM SEC	83	782	1962	NO ENTRIES
62030	MARUTA I			J CHEM SOC JAPAN, PURE CHEM SEC	83	788	1962	NO ENTRIES
62031	MARUTA I			J CHEM SOC JAPAN, PURE CHEM SEC	83	858	1962	NO ENTRIES
62032	MARUTA I			J CHEM SOC JAPAN, PURE CHEM SEC	83	861	1962	NO ENTRIES
62033	MATUURA R HOSOKAWA S	SATAKE I	IWAMATSU I	BULL CHEM SOC JAPAN	35	1050	1962	NO ENTRIES
62034	CAMPBELL AN	KARTZMARK EM	LAKSHMINAR. GR	CAN J CHEM	40	839	1962	NO ENTRIES
62035	TUDDENHAM RF	ALEXANDER AE		J PHYS CHEM	66	1839	1962	YIELDED 15 ENTRIES
62036	HAMANN SD			J PHYS CHEM	66	1359	1962	YIELDED 5 ENTRIES
62037	DEMCHENKO PA			UKR KHIM ZH	28	46	1962	YIELDED 6 ENTRIES
62038	DEMCHENKO PA	ZAKHAROVA NN	DEMCHENKO LG	UKR KHIM ZH	28	611	1962	YIELDED 5 ENTRIES
62039	BESPYATOV MP	LESHCHENKO ZY		MASLOB ZHIR PROM	28	20	1962	NO ENTRIES
62040	KURZ J L			J PHYS CHEM	66	2239	1962	YIELDED 4 ENTRIES
63001	SHEDLOVSKY S	JAKOB CW	EPSTEIN MB	J PHYS CHEM	67	2075	1963	YIELDED 12 ENTRIES
63002	PILPEL N			CHEM REV	63	221	1963	NO ENTRIES
63003	TOKIWA F			BULL CHEM SOC JAPAN	36	222	1963	NO ENTRIES
63004	TOKIWA F			BULL CHEM SOC JAPAN	36	1589	1963	NO ENTRIES
63005	ROBINS DC	THOMAS IL		J PHARM PHARMACOL	15	522	1963	NO ENTRIES
63006	KAKIUCHI K	HATTORI K	ISEMURA T	BULL CHEM SOC JAPAN	36	1250	1963	NO ENTRIES
63007	TOKIWA F			BULL CHEM SOC JAPAN	36	281	1963	NO ENTRIES
63008	TORI K	NAKAGAWA T		KOLLOID-Z	189	50	1963	YIELDED 49 ENTRIES
63009	TORI K	NAKAGAWA T		KOLLOID-Z	188	47	1963	YIELDED 6 ENTRIES
63010	TORI K	NAKAGAWA T		KOLLOID-Z	187	44	1963	YIELDED 3 ENTRIES
63012	TORI K	KURIYAMA K	NAKAGAWA T	KOLLOID-Z	191	48	1963	YIELDED 4 ENTRIES
63013	WEIL JK BISTLINE RG	SMITH FD	STIRTON AJ	J AM OIL CHEMISTS SOC	40	538	1963	YIELDED 43 ENTRIES
63014	CORKILL JM TATE JR	GOODMAN JF	OGDEN CP	PROC ROY SOC	273	84	1963	YIELDED 2 ENTRIES
63015	BECKETT AH	WOODWARD RJ		J PHARM PHARMACOL	15	422	1963	YIELDED 25 ENTRIES
63016	ANACKER EW	GHOSE HM		J PHYS CHEM	67	1713	1963	YIELDED 7 ENTRIES
63017	CROOK EH	FORDYCE DB	TREBBI GF	J PHYS CHEM	67	1987	1963	YIELDED 54 ENTRIES
63018	CORKILL JM	HERRMANN KW		J PHYS CHEM	67	935	1963	NO ENTRIES
63019	GRABENSTETT.RJ	CORKILL JM		J COLLOID SCI	18	401	1963	NO ENTRIES
63020	BECHER P			J COLLOID SCI	18	196	1963	YIELDED 5 ENTRIES
63021	DONBROW M	JAN ZA		J PHARM PHARMACOL	15	825	1963	YIELDED 6 ENTRIES
63022	BECHER P			J COLLOID SCI	18	665	1963	NO ENTRIES
63023	TOKIWA F			BULL CHEM SOC JAPAN	36	1585	1963	NO ENTRIES
63024	BOTRE C	RICCIERI FM		J PHARM SCI	52	1011	1963	NO ENTRIES
63025	ASCOLI F	BOTRE C		BIOPOLYMERS	1	353	1963	NO ENTRIES
63026	SCHICK MJ			J PHYS CHEM	67	1796	1963	YIELDED 59 ENTRIES
63027	SCHICK MJ			J AM OIL CHEMISTS SOC	40	680	1963	NO ENTRIES
63028	SCHICK MJ			J COLLOID SCI	18	378	1963	NO ENTRIES
63029	HUTCHINSON E	TOKIWA F		J CHEM EDUC	40	472	1963	NO ENTRIES
63030	PACKTER A	DONBROW M		J PHARM PHARMACOL	15	317	1963	YIELDED 12 ENTRIES
63031	ROBINS DC	THOMAS IL		J PHARM PHARMACOL	15	157	1963	NO ENTRIES
63032	MUKERJEE P	RAY A		J PHYS CHEM	67	190	1963	YIELDED 18 ENTRIES
63033	EKWALL P	EIKREM H	MANDELL L	ACTA CHEM SCAND	17	111	1963	NO ENTRIES
63034	SATAKE I MATUURA R	IWAMATSU I	HOSOKAWA S	BULL CHEM SOC JAPAN	36	204	1963	YIELDED 14 ENTRIES
63035	SATAKE I	MATUURA R		BULL CHEM SOC JAPAN	36	813	1963	NO ENTRIES
63036	SHINODA K	NAKAYAMA H		J COLLOID SCI	18	705	1963	NO ENTRIES
63037	KATO Y			CHEM PHARM BULL (TOKYO)	11	1202	1963	YIELDED 3 ENTRIES
63038	BESPYATOV MP	LESHCHENKO ZY		MASLOB ZHIR PROM	29	19	1963	NO ENTRIES
63039	LESYUIS AA	KARNAUKH AM		MASLOB ZHIR PROM	29	22	1963	NO ENTRIES
64001	VENABLE RL	NAUMAN RV		J PHYS CHEM	68	3498	1964	YIELDED 9 ENTRIES
64002	MAURER EW WEIL JK	STIRTON AJ	AULT WC	J AM OIL CHEMISTS SOC	41	205	1964	YIELDED 30 ENTRIES
64003	CORKILL JM	GOODMAN JF	HARROLD SP	TRANS FARADAY SOC	60	202	1964	YIELDED 25 ENTRIES
64004	SCHOTT H			J PHYS CHEM	68	3612	1964	YIELDED 2 ENTRIES
64005	BECHER P			PROC INTERN CONGR SURFACE ACTIVITY	4TH		1964	NO ENTRIES
64006	HERRMANN KW			J PHYS CHEM	68	1540	1964	YIELDED 4 ENTRIES
64007	HOYER HW	DOERR IL		J PHYS CHEM	68	3494	1964	YIELDED 1 ENTRIES
64008	BECHER P	DEL VECCHIO AJ		J PHYS CHEM	68	3511	1964	NO ENTRIES
64009	CARLESS JE	CHALLIS RA	MULLEY BA	J COLLOID SCI	19	201	1964	YIELDED 16 ENTRIES

Reference No.	Authors			Journal	Vol.	Pg.	Year	No. of Entries from Reference
64010	MANKOWICH AM			J AM OIL CHEMISTS SOC	41	449	1964	YIELDED 6 ENTRIES
64011	SHINODA K	KATSURA K		J PHYS CHEM	68	1568	1964	YIELDED 24 ENTRIES
64012	CORKILL JM	GOODMAN JF	TATE JR	TRANS FARADAY SOC	60	986	1964	YIELDED 1 ENTRIES
64013	CROOK EH	FORDYCE DB	TREBBI GF	J AM OIL CHEMISTS SOC	41	231	1964	NO ENTRIES
64014	CROOK EH	TREBBI GF	FORDYCE DB	J PHYS CHEM	68	3592	1964	YIELDED 80 ENTRIES
64015	NAKAGAWA T	TORI K		KOLLOID-Z	194	143	1964	NO ENTRIES
64016	BENJAMIN L			J PHYS CHEM	68	3575	1964	YIELDED 5 ENTRIES
64017	ANACKER EW	RUSH RM	JOHNSON JS	J PHYS CHEM	68	81	1964	YIELDED 4 ENTRIES
64018	ANACKER EW	WESTWELL AE		J PHYS CHEM	68	3490	1964	NO ENTRIES
64019	INOUE H			KOLLOID-Z	196	1	1964	NO ENTRIES
64020	SCHICK MJ			J PHYS CHEM	68	3585	1964	YIELDED 108 ENTRIES
64021	NAKAGAWA T	INOUE H		KOLLOID-Z	195	93	1964	NO ENTRIES
64022	PILPEL N			NATURE	204	378	1964	NO ENTRIES
64023	BALMBRA RR GOODMAN JF	CLUNIE JS	CORKILL JM	TRANS FARADAY SOC	60	979	1964	YIELDED 8 ENTRIES
64024	TOKIWA F			BULL CHEM SOC JAPAN	37	1837	1964	YIELDED 12 ENTRIES
64025	NAKAGAKI M	NINOMIYA Y		BULL CHEM SOC JAPAN	37	817	1964	YIELDED 1 ENTRIES
64026	CAMPBELL AN	GIESKES JMTM		CAN J CHEM	43	1004	1964	NO ENTRIES
64027	CORKILL JM	GOODMAN JF	TATE JR	TRANS FARADAY SOC	60	996	1964	YIELDED 2 ENTRIES
64028	BERRY RWH	BROCKLEHURST P		J CHEM SOC		2264	1964	NO ENTRIES
64030	HARTLEY GS			CHEM IND (LONDON)	24	1012	1964	NO ENTRIES
64031	BOTRE C	SOLINAS M		BIOCHEM BIOPHYS ACTA	88	415	1964	NO ENTRIES
64032	BOTRE C	DE MARTIIS F	SOLINAS M	J PHYS CHEM	68	3624	1964	YIELDED 1 ENTRIES
64033	LIQUORI AM	BOTRE C		RIC SCI	6	71	1964	NO ENTRIES
64034	NAKAGAKI M	KAWAMURA S		YAKUGAKU ZASSHI	84	246	1964	YIELDED 5 ENTRIES
64035	SOMASUNDARAN P	HEALY TW	FUERSTENAU DW	J PHYS CHEM	68	3562	1964	YIELDED 5 ENTRIES
64036	MIURA M	FUJITA H	WATARI Y	J SCI HIROSHIMA UNIV, SER A-II	28	41	1964	NO ENTRIES
64037	HUTCHINSON E	SHEAFFER VE	TOKIWA F	J PHYS CHEM	68	2818	1964	YIELDED 7 ENTRIES
64038	FUERSTENAU DW	HEALY TW	SOMASUNDARAN P	TRANS SME AIME		321	1964	NO ENTRIES
64039	LANGE H			PROC INTERN CONGR SURFACE ACTIVITY	4TH	1	1964	NO ENTRIES
64040	NAKAGAWA T	INOUE H		PROC INTERN CONGR SURFACE ACTIVITY	4TH	N	1964	NO ENTRIES
64041	KAUFMAN S			J PHYS CHEM	68	2814	1964	NO ENTRIES
64042	LITTLE RC	SINGLETERRY CR		J PHYS CHEM	68	3453	1964	NO ENTRIES
64043	WASIK SP	HUBBARD WD		J RES NAT BUR STD A	68	359	1964	YIELDED 13 ENTRIES
64044	LITTLE RC	SINGLETERRY CR		J PHYS CHEM	68	2709	1964	NO ENTRIES
64045	HUISMAN HF			KONINKI NED AKAD WETEN. PROC SER B	67	367	1964	NO ENTRIES
64046	HUISMAN HF			KONINKI NED AKAD WETEN. PROC SER B	67	376	1964	NO ENTRIES
64047	HUISMAN HF			KONINKI NED AKAD WETEN. PROC SER B	67	388	1964	YIELDED 59 ENTRIES
64048	HUISMAN HF			KONINKI NED AKAD WETEN. PROC SER B	67	407	1964	NO ENTRIES
64049	ELWORTHY PH	FLORENCE AT		KOLLOID-Z	195	23	1964	YIELDED 20 ENTRIES
64050	ADDERSON JE	TAYLOR H		*J COLLOID SCI*	19	495	*1964*	*YIELDED 14 ENTRIES*
64051	MARKINA ZN	TSIKURINA NN	KOSTOVA NZ	KOLLOID ZH	26	76	1964	YIELDED 31 ENTRIES
65001	CROOK EH	FORDYCE DB	TREBBI GF	J COLLOID SCI	20	191	1965	NO ENTRIES
65002	KONNO K	KITAHARA A		KOGYO KAGAKU ZASSHI	68	2058	1965	NO ENTRIES
65003	MOLYNEUX P	RHODES CT	SWARBICK J	TRANS FARADAY SOC	61	1043	1965	YIELDED 13 ENTRIES
65004	CORKILL JM	GOODMAN JF	WALKER T	TRANS FARADAY SOC	61	589	1965	NO ENTRIES
65005	CORKILL JM	GOODMAN JF	OGDEN CP	TRANS FARADAY SOC	61	583	1965	YIELDED 3 ENTRIES
65006	EMERSON MF	HOLTZER A		J PHYS CHEM	69	3718	1965	NO ENTRIES
65007	BUJAKE JE	GODDARD ED		TRANS FARADAY SOC	61	190	1965	YIELDED 2 ENTRIES
65010	BOTRE C	BRUFANI M	RICCIERI FM	J PHARM SCI	54	919	1965	NO ENTRIES
65011	SCHICK MJ	GILBERT AH		J COLLOID SCI	20	464	1965	YIELDED 24 ENTRIES
65012	STEIGMAN J	COHEN I	SPINGOLA F	J COLLOID SCI	20	732	1965	YIELDED 9 ENTRIES
65013	BECHER P			J COLLOID SCI	20	728	1965	YIELDED 9 ENTRIES
65014	TOKIWA F			BULL CHEM SOC JAPAN	38	751	1965	NO ENTRIES
65015	V VOORST VA.F						1965	NO ENTRIES
65016	ELWORTHY PH	MACFARLANE CB		J PHARM PHARMACOL	17	65	1965	NO ENTRIES
65017	ARAI H	SHIGEHIRO F	MARUTA I	KOGYO KAGAKU ZASSHI	68	1090	1965	NO ENTRIES
65018	MYSELS EK	MYSELS KJ		J COLLOID SCI	20	315	1965	YIELDED 6 ENTRIES
65019	ABU-HAMDIYY.M	MYSELS KJ		J PHYS CHEM	69	1466	1965	YIELDED 6 ENTRIES
65020	SHIRAHAMA K	MATUURA R		BULL CHEM SOC JAPAN	38	373	1965	YIELDED 34 ENTRIES
65021	MALIK WU	VERMA SP		INDIAN J CHEM	3	441	1965	NO ENTRIES
65022	SHIGEHARA K			BULL CHEM SOC JAPAN	38	1700	1965	YIELDED 3 ENTRIES
65023	EKWALL P	HOLMBERG P		ACTA CHEM SCAND	19	573	1965	NO ENTRIES
65024	CAMPBELL AN	LAKSHMINAR. GR		CAN J CHEM	43	1729	1965	YIELDED 16 ENTRIES
65025	STEIGMAN J	SHANE N		J PHYS CHEM	69	968	1965	YIELDED 13 ENTRIES
65026	WEINER ND	ZOGRAFI G		J PHARM SCI	54	436	1965	YIELDED 6 ENTRIES
65027	BJAASTAD SG	HALL NA	THAKKAR AL	J PHARM SCI	54	1529	1965	NO ENTRIES
65028	KUPPUSAMI J	SURYANARAY.CV		NATURE	208	780	1965	YIELDED 4 ENTRIES
65029	MIJNLIEFF PF	DITMARSCH R		NATURE	208	889	1965	NO ENTRIES
65030	TONG LKJ	REEVES RL	ANDRUS RW	J PHYS CHEM	69	2357	1965	YIELDED 3 ENTRIES
65031	CZERNIAWSKI M			ROCZN CHEM	39	1059	1965	YIELDED 4 ENTRIES
65032	CZERNIAWSKI M			ROCZN CHEM	39	1469	1965	NO ENTRIES
65033	INOUE H	NAKAGAWA T		J PHYS CHEM	70	1108	1965	NO ENTRIES
65034	LELONG ALM	CONSOLE L		ANALES ASOC QUIM ARGENT	53	39	1965	NO ENTRIES
65035	LELONG ALM	NATALE I		ANALES ASOC QUIM ARGENT	53	11	1965	NO ENTRIES
65036	OSUCI J	SATO M	IFUKU N	REV PHYS CHEM JAPAN	35	32	1965	YIELDED 19 ENTRIES
65037	CZERNIAWSKI M			ROCZN CHEM	39	1275	1965	YIELDED 4 ENTRIES
66001	SCHICK MJ	MANNING DJ		J AM OIL CHEMISTS SOC	43	133	1966	YIELDED 67 ENTRIES
66002	MUKERJEE P	KAPAUAN P	MEYER HG	J PHYS CHEM	70	783	1966	YIELDED 4 ENTRIES
66003	WEIL JK	STIRTON AJ	BARR EA	J AM OIL CHEMISTS SOC	43	157	1966	YIELDED 5 ENTRIES

Reference No.	Authors			Journal	Vol.	Pg.	Year	No. of Entries from Reference
66004	MUKERJEE P	RAY A		J PHYS CHEM	70	2138	1966	NO ENTRIES
66005	MUKERJEE P	RAY A		J PHYS CHEM	70	2144	1966	NO ENTRIES
66006	MUKERJEE P	RAY A		J PHYS CHEM	70	2150	1966	YIELDED 10 ENTRIES
66007	ELWORTHY PH	MYSELS KJ		J COLLOID SCI	21	331	1966	YIELDED 3 ENTRIES
66008	ELWORTHY PH	FLORENCE AT		KOLLOID-Z Z POLYMERE	208	157	1966	NO ENTRIES
66009	SHIGEHARA K			BULL CHEM SOC JAPAN	39	2643	1966	NO ENTRIES
66010	SHIGEHARA K			BULL CHEM SOC JAPAN	39	2332	1966	YIELDED 3 ENTRIES
66011	CARDWELL PH			J COLLOID INTERFACE SCI	22	430	1966	YIELDED 6 ENTRIES
66012	BENJAMIN L			J COLLOID INTERFACE SCI	22	386	1966	YIELDED 19 ENTRIES
66013	HERRMANN KW			J COLLOID INTERFACE SCI	22	352	1966	YIELDED 12 ENTRIES
66014	CORKILL JM TATE JR	GOODMAN JF	HARROLD SP	TRANS FARADAY SOC	62	994	1966	YIELDED 10 ENTRIES
66015	CORKILL JM TATE JR	GOODMAN JF	ROBSON P	TRANS FARADAY SOC	62	987	1966	YIELDED 12 ENTRIES
66016	CORKILL JM	GOODMAN JF	TATE JR	TRANS FARADAY SOC	62	979	1966	NO ENTRIES
66017	PATEL RM	ZOGRAFI G		J PHARM SCI	55	1345	1966	NO ENTRIES
66018	WAN LSC			J PHARM SCI	55	1395	1966	YIELDED 5 ENTRIES
66019	DONBROW M	JACOBS J		J PHARM PHARMACOL	18	925	1966	YIELDED 2 ENTRIES
66020	FLORENCE AT			J PHARM PHARMACOL	18	384	1966	YIELDED 1 ENTRIES
66021	MANKOWICH AM			J AM OIL CHEMISTS SOC	43	615	1966	YIELDED 11 ENTRIES
66022	KOMOR JA	BEISWANGE. JPG		J AM OIL CHEMISTS SOC	43	435	1966	YIELDED 12 ENTRIES
66023	MALIK WU	CHAND P		J AM OIL CHEMISTS SOC	43	446	1966	YIELDED 16 ENTRIES
66024	LOVELL VM	SEBBA F		ANAL CHEM	38	1926	1966	NO ENTRIES
66025	SCHICK MJ			J AM OIL CHEMISTS SOC	43	681	1966	YIELDED 45 ENTRIES
66026	NAKAYAMA H	SHINODA K	HUTCHINSON E	J PHYS CHEM	70	3502	1966	NO ENTRIES
66027	TOKIWA F	OHKI K		J PHYS CHEM	70	3437	1966	YIELDED 6 ENTRIES
66028	FORD WPJ	OTTEWILL RH	PARREIRA HC	J COLLOID INTERFACE SCI	21	522	1966	YIELDED 21 ENTRIES
66029	CZERNIAWSKI M			ROCZN CHEM	40	1265	1966	NO ENTRIES
66030	CZERNIAWSKI M			ROCZN CHEM	40	1935	1966	YIELDED 4 ENTRIES
66031	MATHAI K	OTTEWILL RH		TRANS FARADAY SOC	62	759	1966	NO ENTRIES
66032	IDA O	MEGURO K	KONDO A	J CHEM SOC JAPAN, PURE CHEM SEC	77	905	1966	NO ENTRIES
66033	OSUGI J	SATO M	IFUKU N	J CHEM SOC JAPAN, PURE CHEM SEC	87	329	1966	NO ENTRIES
66034	PYTASZ G	SZEGLOWSKI Z		ZESZYTY NAUK UNIW JAGIEL	211	199	1966	NO ENTRIES
66035	PYTASZ G	SZEGLOWSKI Z		ZESZYTY NAUK UNIW JAGIEL	211	209	1966	NO ENTRIES
66036	SCHOTT H			J PHYS CHEM	70	2966	1966	YIELDED 8 ENTRIES
66037	MATHAI K	OTTEWILL R		TRANS FARADAY SOC	62	750	1966	YIELDED 1 ENTRIES
66038	BENTON D	SPARKS B		TRANS FARADAY SOC	62	3244	1966	YIELDED 6 ENTRIES
66039	HERRMANN WK	BRUSHMILLER J	COURCHENE W	J PHYS CHEM	70	2909	1966	YIELDED 7 ENTRIES
66040	BENJAMIN L			J PHYS CHEM	70	3790	1966	YIELDED 11 ENTRIES

Abbreviations: Units of Measure

Code	Description
A	MOLES/100 MOLES OF SOLVENT (INCLUDING ADDITIVES)
B	VOLUME % OF SOLVENT
C	MOLES/100 MOLES OF SURFACTANT MIXTURE
D	W/V % (GRAMS/100 MILLILITERS OF SOLUTION)
E	% SATURATION OF SOLUTION BY ADDITIVE
H	GRAMS/100 GRAMS OF SOLVENT
I	MOLES/100 MOLES OF SURFACTANT
K	TOTAL NORMALITY OF COUNTERIONS
M	MOLAR (MOLES/LITER OF SOLUTION)
N	NORMAL (EQUIVALENTS/LITER OF SOLUTION)
P	W/W % (GRAMS/100 GRAMS OF SOLUTION)
Q	GRAMS/100 GRAMS OF SURFACTANT
R	VALUE VARIED DURING EXPERIMENT
S	MOLES/KILOGRAM OF SOLUTION
T	GRAMS/100 GRAMS OF SURFACTANT MIXTURE
U	MOLES/LITER OR KILOGRAM OF SOLUTION (UNSPECIFIED)
W	MOLAL (MOLES/KILOGRAM OF SOLVENT)
Y	PRESSURE IN ATMOSPHERES

Abbreviations: Words and Names

Abbreviations	Meaning	Abbreviations	Meaning
AZBZ	AZOBENZENE	N-3SOA*	N-(3SULFOLANYL) OLEYL AMIDE
BRPB	BROMPHENOL BLUE (DYE)	OROT	ORANGE OT (DYE)
BZL*	BENZYL	PDMAB	P-DIMETHYLAMINOAZOBENZENE
BZP4	BENZOPURPURINE 4B (DYE)	PLT	PLOT (GRAPH)
COND	CONDUCTANCE (ELECTRIC)	PMS*	POLYMETHYLSILOXANE
DCFL	DICHLOROFLUORESCEINE (DYE)	PNCN	PINACYANOL
DMYL	DIMETHYL YELLOW (DYE)	RHD6	RHODAMINE 6G (DYE)
EOSN	EOSINE (DYE)	SDN4	SUDAN 4 (DYE)
EQN	EQUATIONS	SKYB	SKY BLUE SF (DYE)
ERTS	ERYTHROSIN (DYE)	SP	SPECIFIC
FL	FLUORESCEINE (DYE)	SPCTR	SPECTRAL
FLUOR	FLUORESCENCE	TMCHCGLET*	TRIMETHYL CYCLOHEXYL CARBINYL GLYCEROL ETHER
FOTMTR	PHOTOMETRIC	TNSN	TENSION
GLET*	GLYCERINE ETHER	UNSPEC	NOT SPECIFIED BY REFERENCE
HXMTP*	HEXAMETAPHOSPHATE	V.BR*	VERY BRANCHED
INPX	INDOPHENOL (DYE)	YLOB	YELLOW OB (DYE)
I2	IODINE	2NPA	2-NITRODIPHENYLAMINE
LOGMIC	LOGARITHMIC GRAPH		
LOH	LAURYL (DODECYL) ALCOHOL		

Source Symbols

Source Code	Description
A	MISPRINT CORRECTED IN FIGURE QUOTED IN REFERENCE
C	UNITS CONVERTED FROM TABULATION IN REFERENCE
E	FROM EQUATIONS IN REFERENCE OF METHOD RESULTS
G	FROM GRAPH OF CMC VALUES IN REFERENCE
K	FROM GRAPH OF METHOD RESULTS IN REFERENCE
L	ALSO PERSONAL COMMUNICATIONS FROM AUTHOR
M	UNITS CONVERTED FROM PRECEDING
P	FROM OUR PLOT OF DATA IN REFERENCE
S	AVERAGE OF TABULATED VALUES
T	TABULATED OR FIGURE QUOTED IN REFERENCE

The code E in the numerical value of the concentration in the "Additive" column of the CMC tables stands for "times ten to the power".

Symbols for the quality of materials and methods are discussed on page 6 et seq.

Symbols for methods are discussed on page 8 et seq.