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U.S. DEPARTMENT OF COMMERCE / National Bureau of Standards

Liquid Densities of Oxygen, Nitrogen, Argon and Parahydrogen

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Liquid Densities of Oxygen, Nitrogen, Argon and Parahydrogen (Metric Supplement)

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LIQUID DENSITIES OF OXYGEN, NITROGEN, ARGON, AND PARAHYDROGEN

[Metric Supplement]

H. M. Roder

Tables of pressure, volume, density and temperature for the saturated liquid and for compressed liquid states from the triple point to the critical point, of oxygen, nitrogen, argon, and parahydrogen are presented. The table entries of temperature are in Kelvin and degrees Celsius, table entries in pressure are in bars and kp/cm^2. Volumes or densities are given in several different units, and density ratios are tabulated for each entry. Estimates of the uncertainty for the tabulated data are given. The tables were prepared in the style and in the units preferred by the users. They are intended as source for both technician and engineer.

Key Words: Argon; compressed liquid; density; density ratios; liquid; nitrogen; oxygen; parahydrogen; pressure; saturated liquid; tables; temperature; uncertainties; volume.

1. INTRODUCTION

In this supplement standard density data for the saturated liquid and for compressed liquid states of four commercially important gases are presented in units commonly used by the European cryogenic industry. The supplement was prepared at the express request of the Industrial Gases Committee (IGC) of the Commission Permanente Internationale de l'Acétylène, de la Soudure Autogène et des Industries qui s'y Rattachent (CPI). The values presented are derived from the identical sources and computer programs which have been used earlier to prepare standard density data for users in the United States. The basic document is National Bureau of Standards (U.S.) Technical Note 361 (Revised), (Roder, et al. 1972), which was prepared to support a Code for Cryogenic Liquid-Measuring Devices. This code was presented at the 57th National Conference on Weights and Measures (U.S.), and has since been adopted by the conference.

The basic document is a logical extension of earlier efforts. The first effort was pamphlet P-6, "Standard Density Data Atmospheric Gases and Hydrogen," by the Compressed Gas Association (CGA, 1965). In this pamphlet, values of pressure, temperature, and density for the Normal Boiling Point (NBP)* and Standard Temperature and Pressure (STP)** were presented.

*NBP: 1 atm (760 torr) **STP: 1 atm, 0°C

The second effort was NBS Technical Note 361, "Saturated Liquid Densities of Oxygen, Nitrogen, Argon, and Parahydrogen" (Roder, et al. 1968). In addition to the two state points NBP and STP, this document included the definition of the saturated liquid curve. The sources selected were the best available at that time. In particular the compilations of oxygen, argon, and parahydrogen selected, each representing at least two man years of effort, were not available to the CGA in 1965.

The basic document includes all of the data presented previously in tables and graphs. It also provides the extension to the compressed liquid states which was forecast in Technical Note 361. In addition, the source selected for oxygen is based on a large body of new and highly accurate data, only a small portion of which was available in 1968. Numerical values differ from earlier selections by no more than 0.16%. We hope that the values presented here will serve as "agreed-on" values for some time to come.

The supplement follows the basic document in outline and in structure, however, at the request of the sponsor all but two figures were omitted from the supplement. Also omitted is section 5, in which the use of tables and graphs was described. The appendix has been changed to include the additional conversion factors required for the supplement. Finally, the sponsor requested that we emphasize the number of significant digits printed in the tables (see also section 4). We print no more than 5 significant figures because the precision in even the best PVT experiments is no better than 1 part in 10000. The accuracy of the liquid densities is considerably less, on the order of 1 to 4 parts in 1000.

2. DESCRIPTION OF THE TABLES

To understand the properties that are presented in the tables and graphs, it is helpful to recall one of the "standard" phase diagrams. Try to recollect the presentation of isotherms in pressure-volume (P-V) coordinates as given in figure 1. You may recall the rectangular hyperbolas of PV = constant of the ideal gas, and the critical isotherm first presented in a discussion of the Van der Waals equation of state. This report concerns the compressed liquid region and the equilibrium boundary between the single phase compressed liquid region and the two phase liquid-gas region. The compressed liquid region is shown dotted while the boundary is emphasized in figure 1. The boundary extends from the triple point to the critical point.*

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* Strictly speaking, in this phase diagram the NBP and the triple point are lines extending from liquid to vapor side at the pressure indicated.

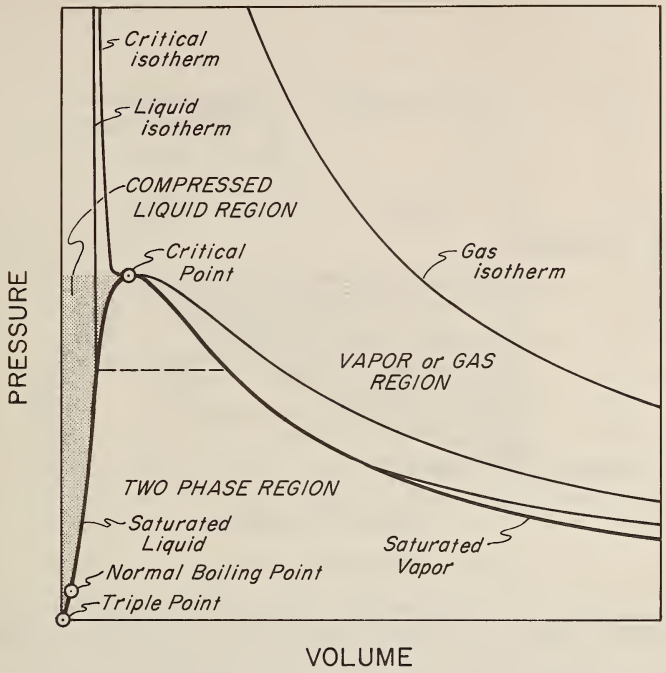

Figure 1. Generalized Phase Diagram; Pressure vs. Volume

A second way to show the region of interest is in a pressure-temperature (P-T) phase diagram. In figure 2 we recognize the vapor pressure curve, the melting line, and we recall that lines of constant volume or density are very nearly straight lines. The compressed liquid region is again shown dotted. The equilibrium boundary of concern coincides with the vapor pressure curve.

For each gas the various properties are presented in a series of tables:

A table giving the densities near atmospheric pressure and room temperature

A table giving uncertainties in the data

A table giving property values for the saturated liquid

A table giving property values for compressed liquid.

The first table for each fluid presents values of density for pressures of 1 bar (0.98692 atm) and 760 torr (1 atm) at temperatures of 0°C and 15°C. (These are the pressures and temperatures specified by the sponsor as representing the 'standards' used by

its members). Density ratios from boiling pressures of 1 bar and 760 torr to the room temperatures values are included in this table.

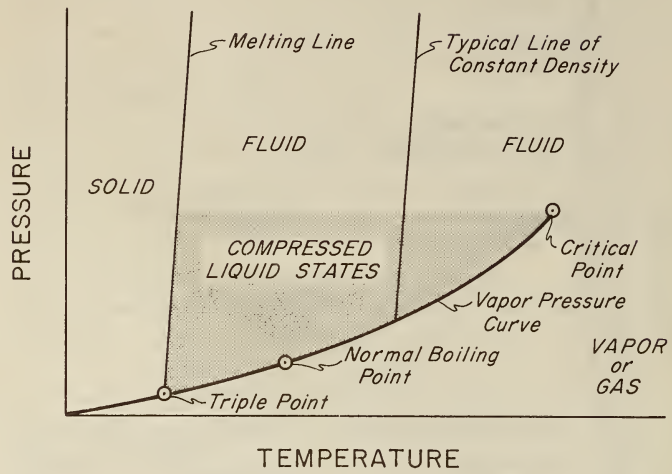

Figure 2. Generalized Phase Diagram; Pressure vs. Temperature

The second table for each fluid presents values for the uncertainties in the data. The uncertainties at low temperatures include both the error in the experimental values and the contribution to the error by using an analytical function to represent the experimental values. Errors for values near room temperature are seen to be much smaller because PVT measurements near room temperature can be made to great accuracy and a better fit to the equation of state can be made.

The third table presents values of increasing pressures and corresponding temperatures along the saturated liquid boundary. These two variables define the vapor pressure curve. The table contains in ascending order even values of pressure in both bar and kp/cm^2 * and even values of temperature in both K and °C. Other columns contain entries in density, volume, and density ratios. There are two columns of density ratios. The first column is the ratio of the actual density as compared to the density at a boiling pressure of 1 bar. The second column is also a ratio of densities, namely the ratio of the actual density of the liquid as compared to the density at a boiling pressure of 760 torr. Both ratios are dimensionless. Entries in pressure are closely spaced so that interpolation between values should not be required. For parahydrogen, the increment in pressure is 0.1 bar. For the

* designates kilogram-force per cm^2, see also appendix

other fluids the increment is 0.2 bar. The tables include entries for the Triple Point, a boiling pressure of 1 kp/cm^2, a boiling pressure of 1 bar, and the Critical Point. These points are set off by double spacing in the table. In addition a line is included for a boiling pressure of 760 torr. Conversion of units are given in the appendix. Please note that the number of significant figures presented in the tables is not justified on the basis of accuracy, but are given to maintain internal consistency.

The fourth table presents density and density ratios for the compressed liquid states. The horizontal index of this table is pressure given for selected values in even bar. An additional line shows the equivalent pressure in kp/cm^2. The primary vertical index is temperature given in Kelvin. Auxiliary entries give the Kelvin equivalent in degrees Celsius, and the vapor pressure corresponding to this temperature in bar. Entries in the table proper are:

a.) a density ratio, the actual density divided by the saturation density at a boiling pressure of 1 bar. The ratio is of course dimensionless; it corresponds to the first column of ratios in the saturation table described earlier.

b.) a second density ratio, the actual density divided by the saturation density at a boiling pressure of 760 torr. This density ratio is also dimensionless and it corresponds to the second column of ratios given in the saturation tables.

c.) the density in kg/dm^3 (kg/litre).

3. DISCUSSION

The nature of progress in cryogenics is such that today's "best" value may be superseded tomorrow. In the initial effort, Pamphlet P-6 of the Compressed Gas Association (1965), only values for the NBP and values at NTP were presented. The next report included values for the saturated liquid boundary. The present report includes the PVT values in the compressed fluid states because we know that in many applications the fluid entering pump intakes is subcooled to prevent cavitation.

We have selected the following sources: Weber (1970) for oxygen; Strobridge (1962) for nitrogen; Gosman, et al. (1969) for argon; and Roder, et al. (1965) for parahydrogen. In addition, we use Hilsenrath, et al. (1955) to establish the NTP and STP values for parahydrogen. The sources selected differ only slightly from earlier selections. The oxygen reference in particular has become available only in recent years. The most compelling reason for selecting these compilations as sources is that we require consistent values for the saturated liquid and the compressed liquid states. In our experience the "best" set of values is obtained when in addition to PVT and vapor pressure data other experimental data such as measurements of the liquid specific heats, the heats of vaporization, or the velocity of sound in the liquid are included in the establishment of the basic PVT surface.

One advantage in selecting these sources is that industry and one major user, National Aeronautics and Space Administration (NASA) will now be using consistent data.

The data in the NASA references for oxygen and hydrogen [NBS Tech. Note 384, McCarty and Weber (1971), and NBS Tech. Note 617, McCarty and Weber (1972)] are taken from Weber (1970) and Roder, et al. (1965). One other advantage arises when we select these compilations as sources: except for hydrogen, we can get the values at or near room temperature directly from the equation of state, interpolated to the accuracy of the original data.

The last point requires a bit more discussion because it ties in with the uncertainties in the values presented at or near room temperatures. In the present report we have used a high order interpolation - the equation of state - to get these values. We are justified in using a high order interpolation because the various experimenters went to considerable lengths to get the most accurate PVT values at conditions close to room temperature. According to Cragoe (1941), relative measurements of pressure and volume near room temperature can be made to a few parts per million, and the scatter between PVT values of different observers can to a large extent be explained by the use of different fundamental constants. In tables 2, 6, 10, and 14 we indicate an uncertainty of 0.01% as the uncertainty in molar volume at room temperature. The molar volume at 0° C and 1 atmosphere is the familiar 22.4 liters per mole encountered in elementary texts. The uncertainty is based on a consideration of the ice point temperature, T_o, rather than on a comparison of different experiments. The fundamental constant T_o is now defined to be 273.15 K, but the average over a large number of determinations of different investigators for different gases was 273.165 (Beattie, 1941). We have taken the difference between these two numbers as an indication of the true uncertainty in the molar volumes. Even if the values of different authors are compared directly, the differences are not much larger than 0.01%. Take for example hydrogen, the molar volume is 22428.5 cm^3/mole according to Woolley, et al. (1948), while it is 22433.6 cm^3/mole according to Michels, et al. (1959). The difference is 0.022%. In contrast to this there is no difference between recent measurements on oxygen by Weber (1970) and those of Michels, et al. (1954) if one uses identical values for the gas constant, R, and T_o.

Another word on the uncertainties in tables 2, 6, 10, and 14: The uncertainties are of course ultimately based upon the accuracy of the various experiments. We take them from the authors' estimates, from the statistics of the coefficients of the equation of state, and from the differences between practical temperature scales and the absolute thermodynamic one. We present uncertainties for all three variables, pressure, volume, and temperature. This allows the user to enter the tables with any combination of variables and obtain the uncertainty in the remaining one. For example, in obtaining entries for the other tables, we have assumed either temperature and density or temperature and pressure to be exact. Thus, only uncertainties in pressure in the first case and density in the second case are of concern in determining the number of digits presented in each table.

From the first effort to the present one, changes in property values have been minimal. The actual changes are best described in terms of density. The room temperature values presented in this report of oxygen and argon at 1 atmosphere differ by about 0.02% from those given by the CGA in 1965, while those for nitrogen and parahydrogen are unchanged. On the other hand, the densities of the saturated liquid at 760 torr have changed from earlier values by 0.16% for oxygen and 0.1% for nitrogen. They are virtually unchanged for argon and parahydrogen.

4. LIMITATIONS

In practice, a number of problems are encountered that introduce errors beyond what we might expect from the uncertainties inherent in the data. A few of the practical problems are indicated below.

Instrumentation. Pressure and temperature measuring devices used in custody transfer situations will rarely be capable of the best state of the art measurements, i.e., those that are possible under controlled laboratory conditions. Thus, in most cases the error in instrumentation will be much larger than the uncertainties given for the property tables.

Equilibrium vs. Non-equilibrium Properties. The informed engineer recognizes that the processes of transfer, transport, pressurizing, siphoning, and stratification in storage tanks are all non-equilibrium events. The properties presented in this report are equilibrium properties.

Subcooling. We have indicated that pump intakes, or, for that matter, flow meter intakes, are usually subcooled to prevent cavitation. It is important to recognize that the degree of subcooling, that is the pressure and temperature parameters, may change during liquid transfer.

Purity. The purity of the product will also play a role. The properties presented here are for the pure product made available under laboratory conditions. They may not be appropriate for certain purity grades of commercially available gases without some adjustment for the known impurities.

Significant Digits. The values presented in this report were obtained from various computer programs. We have in the past made these programs available to any user requesting them. However, different computers will return different results from the same programs; in particular, they will round differently. The user should be aware of the following: The accuracy of the data for liquid conditions is on the order of 0.1 to 0.3%, while the accuracy of the room temperature values is on the order of 0.01 to 0.02%. We have, therefore, printed no more than 5 digits anywhere. Please bear in mind that even the fourth digit is uncertain for most values, that is, the digits printed are only to maintain internal consistency of the tables and to allow you to check out your computer programs. If occasionally pairs of values or reciprocals do not seem to correspond, then the fault can be traced to rounding errors.

5. (OMITTED)

6. OXYGEN

The data for oxygen tabulated here are based on the paper by Weber (1970). Additional, extensive tables of values based on this source were prepared by McCarty and Weber (1971) for NASA. Values for the saturated liquid were obtained by first solving the vapor pressure equation for either pressure or temperature, and then using the resulting P and T as input to Weber's programs to obtain the corresponding liquid density. Densities for the compressed liquid were obtained from Weber's programs directly using appropriate values of P and T as input.

Values near room temperature are given in table 1, uncertainties for the data in table 2, values for the saturated liquid are given in table 3, and values for the compressed liquid are shown in table 4.

Table 1

Density of Oxygen Near Atmospheric Pressure and Room Temperature

Temperature	Pressure	Density		Volume	
		gram-mole/cm^3	kg/dm^3	cm^3/gram-mole	dm^3/kg
0°C	1 bar	4.4073×10^{-5}	1.4103×10^{-3}	22690.	709.08
	760 torr	4.4658×10^{-5}	1.4290×10^{-3}	22392.	699.79
15°C	1 bar	4.1770×10^{-5}	1.3366×10^{-3}	23940.	748.17
	760 torr	4.2324×10^{-5}	1.3543×10^{-3}	23627.	738.37
Density Ratios - Dimensionless					
Liquid Density at a boiling pressure of 1 bar*/density at 1 bar and 0°C					809.50
Liquid Density at a boiling pressure of 1 bar/density at 1 bar and 15°C					854.13
Liquid Density at a boiling pressure of 760 torr†/density at 760 torr and 0°C					798.47
Liquid Density at a boiling pressure of 760 torr/density at 760 torr and 15°C					842.49

* Liquid density at a boiling pressure of 1 bar 1.1416 kg/dm^3

† Liquid density at a boiling pressure of 760 torr 1.1410 kg/dm^3

Densities at the boiling point at 760 torr differ by 0.05% from CGA pamphlet P-6, and by 0.03% from the value given in the earlier version of Technical Note 361. The densities for the saturated liquid differ by a maximum of 0.16% from the earlier values at temperatures up to 150 K, that is, the new values are within the uncertainties previously specified. Above 150 K to the critical point the departures rise to several percent because better values for both critical density and critical temperature are now available. The present values are considered to be better because in addition to PVT data, experimental specific heats and dielectric constant measurements near the critical point were used to establish the PVT surface.

Table 2

Uncertainties in the Data for Oxygen

variable	uncertainty	range of temperature
temperature	0.05 K	below 90 K
	0.02%	between 90 and 154 K
	0.1%	near critical
	0.015 K	room temperature
volume	0.1%	between 54.353 and 60 K
	0.2%	between 65 and 150 K
	larger than 0.5%	between 150 K and critical
	0.01%	room temperature
pressure	0.1%	below 90 K
	0.02%	between 90 and 154 K
	0.1%	near critical
	0.01%	room temperature

Routine checks of values in the present tables against those of Technical Note 361 (Revised) revealed a discrepancy in table 4 of the basic document. Entries 2. and 3. of table 4 of the basic document are too small by a factor of 1.0003. An Erratum for the basic document has been prepared.

TABLE 3

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
0.00152	0.00155	54.351	-218.799	0.040832	1.3066	24.490	0.7654	1.1445	1.1451
0.00730	0.00744	60.000	-213.150	0.040054	1.2817	24.967	0.7802	1.1227	1.1233
0.00758	0.00773	60.150	-213.000	0.040033	1.2810	24.980	0.7806	1.1221	1.1227
0.00935	0.00953	61.000	-212.150	0.039915	1.2772	25.053	0.7829	1.1188	1.1194
0.00969	0.00988	61.150	-212.000	0.039894	1.2766	25.066	0.7834	1.1182	1.1188
0.0119	0.0121	62.000	-211.150	0.039776	1.2728	25.141	0.7857	1.1149	1.1155
0.0123	0.0125	62.150	-211.000	0.039755	1.2721	25.154	0.7861	1.1143	1.1149
0.0150	0.0153	63.000	-210.150	0.039636	1.2683	25.230	0.7885	1.1110	1.1116
0.0155	0.0158	63.150	-210.000	0.039615	1.2676	25.243	0.7889	1.1104	1.1110
0.0187	0.0191	64.000	-209.150	0.039496	1.2638	25.319	0.7912	1.1070	1.1076
0.0193	0.0197	64.150	-209.000	0.039475	1.2632	25.332	0.7917	1.1065	1.1071
0.0232	0.0237	65.000	-208.150	0.039356	1.2593	25.409	0.7941	1.1031	1.1037
0.0240	0.0245	65.150	-208.000	0.039335	1.2587	25.423	0.7945	1.1025	1.1031
0.0287	0.0292	66.000	-207.150	0.039215	1.2548	25.500	0.7969	1.0992	1.0998
0.0296	0.0302	66.150	-207.000	0.039194	1.2542	25.514	0.7973	1.0986	1.0992
0.0351	0.0358	67.000	-206.150	0.039074	1.2503	25.592	0.7998	1.0952	1.0958
0.0362	0.0369	67.150	-206.000	0.039053	1.2497	25.606	0.8002	1.0946	1.0952
0.0428	0.0436	68.000	-205.150	0.038933	1.2458	25.685	0.8027	1.0913	1.0918
0.0440	0.0449	68.150	-205.000	0.038912	1.2451	25.699	0.8031	1.0907	1.0913
0.0518	0.0528	69.000	-204.150	0.038791	1.2413	25.779	0.8056	1.0873	1.0879
0.0532	0.0543	69.150	-204.000	0.038770	1.2406	25.793	0.8061	1.0867	1.0873
0.0623	0.0635	70.000	-203.150	0.038649	1.2367	25.874	0.8086	1.0833	1.0839
0.0640	0.0652	70.150	-203.000	0.038627	1.2360	25.888	0.8090	1.0827	1.0833
0.0745	0.0760	71.000	-202.150	0.038506	1.2321	25.970	0.8116	1.0793	1.0799
0.0765	0.0780	71.150	-202.000	0.038484	1.2315	25.984	0.8120	1.0787	1.0793
0.0886	0.0904	72.000	-201.150	0.038363	1.2276	26.067	0.8146	1.0753	1.0759
0.0909	0.0927	72.150	-201.000	0.038341	1.2269	26.082	0.8151	1.0747	1.0753
0.105	0.107	73.000	-200.150	0.038219	1.2230	26.165	0.8177	1.0712	1.0718
0.108	0.110	73.150	-200.000	0.038197	1.2223	26.180	0.8181	1.0706	1.0712
0.124	0.126	74.000	-199.150	0.038075	1.2184	26.264	0.8208	1.0672	1.0678
0.127	0.129	74.150	-199.000	0.038053	1.2177	26.279	0.8212	1.0666	1.0672
0.145	0.148	75.000	-198.150	0.037930	1.2137	26.364	0.8239	1.0631	1.0637
0.148	0.151	75.150	-198.000	0.037908	1.2130	26.379	0.8244	1.0625	1.0631
0.169	0.172	76.000	-197.150	0.037785	1.2091	26.466	0.8271	1.0591	1.0597
0.173	0.176	76.150	-197.000	0.037763	1.2084	26.481	0.8276	1.0585	1.0590
0.196	0.200	77.000	-196.150	0.037639	1.2044	26.568	0.8303	1.0550	1.0556
0.200	0.204	77.122	-196.028	0.037621	1.2038	26.581	0.8307	1.0545	1.0551
0.201	0.205	77.150	-196.000	0.037617	1.2037	26.584	0.8308	1.0544	1.0550
0.227	0.232	78.000	-195.150	0.037493	1.1997	26.672	0.8335	1.0509	1.0515
0.232	0.237	78.150	-195.000	0.037471	1.1990	26.687	0.8340	1.0503	1.0508
0.262	0.267	79.000	-194.150	0.037346	1.1950	26.777	0.8368	1.0468	1.0473
0.267	0.273	79.150	-194.000	0.037324	1.1943	26.792	0.8373	1.0462	1.0467
0.301	0.307	80.000	-193.150	0.037199	1.1903	26.883	0.8401	1.0426	1.0432
0.307	0.313	80.150	-193.000	0.037176	1.1896	26.899	0.8406	1.0420	1.0426

TABLE 3 CONTINUED

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
0.344	0.351	81.000	-192.150	0.037050	1.1856	26.990	0.8435	1.0385	1.0391
0.351	0.358	81.150	-192.000	0.037028	1.1849	27.007	0.8440	1.0379	1.0384
0.392	0.400	82.000	-191.150	0.036902	1.1808	27.099	0.8469	1.0343	1.0349
0.399	0.407	82.150	-191.000	0.036879	1.1801	27.116	0.8474	1.0337	1.0343
0.400	0.408	82.161	-190.989	0.036878	1.1800	27.117	0.8474	1.0336	1.0342
0.445	0.454	83.000	-190.150	0.036752	1.1760	27.209	0.8503	1.0301	1.0307
0.453	0.462	83.150	-190.000	0.036730	1.1753	27.226	0.8508	1.0295	1.0301
0.504	0.514	84.000	-189.150	0.036602	1.1712	27.321	0.8538	1.0259	1.0265
0.513	0.523	84.150	-189.000	0.036580	1.1705	27.338	0.8543	1.0253	1.0259
0.568	0.579	85.000	-188.150	0.036451	1.1664	27.434	0.8573	1.0217	1.0223
0.578	0.590	85.150	-188.000	0.036429	1.1657	27.451	0.8579	1.0211	1.0216
0.600	0.612	85.460	-187.690	0.036382	1.1642	27.486	0.8590	1.0197	1.0203
0.639	0.652	86.000	-187.150	0.036300	1.1615	27.548	0.8609	1.0174	1.0180
0.650	0.663	86.150	-187.000	0.036277	1.1608	27.566	0.8615	1.0168	1.0174
0.717	0.731	87.000	-186.150	0.036147	1.1567	27.664	0.8645	1.0132	1.0137
0.729	0.743	87.150	-186.000	0.036125	1.1559	27.682	0.8651	1.0125	1.0131
0.800	0.816	87.983	-185.167	0.035997	1.1519	27.780	0.8682	1.0090	1.0095
0.802	0.817	88.000	-185.150	0.035994	1.1518	27.782	0.8682	1.0089	1.0094
0.815	0.831	88.150	-185.000	0.035971	1.1510	27.800	0.8688	1.0082	1.0088
0.894	0.912	89.000	-184.150	0.035840	1.1469	27.901	0.8720	1.0046	1.0051
0.908	0.926	89.150	-184.000	0.035817	1.1461	27.919	0.8725	1.0039	1.0045
0.981	1.000	89.869	-183.281	0.035706	1.1425	28.006	0.8752	1.0008	1.0014
0.994	1.014	90.000	-183.150	0.035686	1.1419	28.022	0.8757	1.0002	1.0008
1.000	1.020	90.054	-183.096	0.035677	1.1416	28.029	0.8759	1.0000	1.0005
1.010	1.030	90.150	-183.000	0.035662	1.1412	28.041	0.8763	0.9996	1.0001
1.013	1.033	90.180	-182.970	0.035658	1.1410	28.044	0.8764	0.9995	1.0000
1.103	1.125	91.000	-182.150	0.035530	1.1369	28.145	0.8796	0.9959	0.9964
1.120	1.142	91.150	-182.000	0.035507	1.1362	28.164	0.8801	0.9952	0.9958
1.200	1.224	91.828	-181.322	0.035401	1.1328	28.248	0.8828	0.9922	0.9928
1.221	1.245	92.000	-181.150	0.035374	1.1319	28.270	0.8835	0.9915	0.9920
1.239	1.264	92.150	-181.000	0.035350	1.1312	28.289	0.8840	0.9908	0.9914
1.348	1.375	93.000	-180.150	0.035216	1.1269	28.396	0.8874	0.9871	0.9876
1.368	1.395	93.150	-180.000	0.035192	1.1261	28.415	0.8880	0.9864	0.9870
1.400	1.428	93.387	-179.763	0.035155	1.1249	28.445	0.8890	0.9854	0.9859
1.485	1.515	94.000	-179.150	0.035058	1.1218	28.524	0.8914	0.9826	0.9832
1.507	1.536	94.150	-179.000	0.035034	1.1210	28.544	0.8920	0.9820	0.9825
1.600	1.632	94.785	-178.365	0.034933	1.1178	28.626	0.8946	0.9791	0.9797
1.633	1.665	95.000	-178.150	0.034898	1.1167	28.655	0.8955	0.9782	0.9787
1.656	1.688	95.150	-178.000	0.034874	1.1159	28.674	0.8961	0.9775	0.9780
1.791	1.826	96.000	-177.150	0.034738	1.1116	28.787	0.8996	0.9737	0.9742
1.800	1.835	96.055	-177.095	0.034729	1.1113	28.794	0.8999	0.9734	0.9740

TABLE 3 CONTINUED

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
1.816	1.851	96.150	-177.000	0.034714	1.1108	28.807	0.9003	0.9730	0.9735
1.961	1.999	97.000	-176.150	0.034576	1.1064	28.921	0.9038	0.9691	0.9697
1.961	2.000	97.004	-176.146	0.034576	1.1064	28.922	0.9038	0.9691	0.9697
1.987	2.026	97.150	-176.000	0.034552	1.1056	28.942	0.9045	0.9685	0.9690
2.000	2.039	97.223	-175.927	0.034540	1.1052	28.952	0.9048	0.9681	0.9687
2.142	2.184	98.000	-175.150	0.034414	1.1012	29.058	0.9081	0.9646	0.9651
2.170	2.213	98.150	-175.000	0.034389	1.1004	29.079	0.9087	0.9639	0.9644
2.200	2.243	98.306	-174.844	0.034364	1.0996	29.100	0.9094	0.9632	0.9637
2.336	2.382	99.000	-174.150	0.034250	1.0960	29.197	0.9124	0.9600	0.9605
2.366	2.413	99.150	-174.000	0.034225	1.0952	29.218	0.9131	0.9593	0.9598
2.400	2.447	99.317	-173.833	0.034198	1.0943	29.242	0.9138	0.9585	0.9591
2.542	2.593	100.000	-173.150	0.034085	1.0907	29.338	0.9169	0.9554	0.9559
2.575	2.625	100.150	-173.000	0.034060	1.0899	29.360	0.9175	0.9547	0.9552
2.600	2.651	100.267	-172.883	0.034041	1.0893	29.377	0.9181	0.9541	0.9546
2.763	2.817	101.000	-172.150	0.033919	1.0854	29.482	0.9214	0.9507	0.9512
2.797	2.852	101.150	-172.000	0.033894	1.0846	29.504	0.9220	0.9500	0.9505
2.800	2.855	101.164	-171.986	0.033891	1.0845	29.506	0.9221	0.9499	0.9505
2.942	3.000	101.772	-171.378	0.033789	1.0812	29.595	0.9249	0.9471	0.9476
2.997	3.056	102.000	-171.150	0.033751	1.0800	29.629	0.9259	0.9460	0.9465
3.000	3.059	102.014	-171.136	0.033749	1.0799	29.631	0.9260	0.9459	0.9465
3.033	3.093	102.150	-171.000	0.033726	1.0792	29.651	0.9266	0.9453	0.9458
3.200	3.263	102.823	-170.327	0.033612	1.0756	29.751	0.9298	0.9421	0.9426
3.245	3.309	103.000	-170.150	0.033582	1.0746	29.778	0.9306	0.9413	0.9418
3.283	3.348	103.150	-170.000	0.033557	1.0738	29.800	0.9313	0.9406	0.9411
3.400	3.467	103.596	-169.554	0.033481	1.0714	29.868	0.9334	0.9384	0.9390
3.508	3.578	104.000	-169.150	0.033412	1.0691	29.929	0.9353	0.9365	0.9370
3.549	3.619	104.150	-169.000	0.033386	1.0683	29.952	0.9360	0.9358	0.9363
3.600	3.671	104.335	-168.815	0.033355	1.0673	29.981	0.9369	0.9349	0.9354
3.787	3.862	105.000	-168.150	0.033240	1.0637	30.084	0.9402	0.9317	0.9322
3.800	3.875	105.044	-168.106	0.033233	1.0634	30.091	0.9404	0.9315	0.9320
3.830	3.906	105.150	-168.000	0.033214	1.0628	30.107	0.9409	0.9310	0.9315
3.923	4.000	105.466	-167.684	0.033160	1.0611	30.157	0.9424	0.9294	0.9299
4.000	4.079	105.727	-167.423	0.033115	1.0596	30.198	0.9437	0.9282	0.9287
4.082	4.163	106.000	-167.150	0.033067	1.0581	30.242	0.9451	0.9268	0.9273
4.128	4.209	106.150	-167.000	0.033041	1.0573	30.265	0.9458	0.9261	0.9266
4.200	4.283	106.384	-166.766	0.033000	1.0560	30.303	0.9470	0.9250	0.9255
4.394	4.480	107.000	-166.150	0.032892	1.0525	30.402	0.9501	0.9219	0.9224
4.400	4.487	107.019	-166.131	0.032889	1.0524	30.405	0.9502	0.9218	0.9223
4.442	4.530	107.150	-166.000	0.032866	1.0517	30.427	0.9509	0.9212	0.9217
4.600	4.691	107.633	-165.517	0.032781	1.0489	30.506	0.9533	0.9188	0.9193
4.723	4.816	108.000	-165.150	0.032716	1.0469	30.566	0.9552	0.9170	0.9175
4.773	4.868	108.150	-165.000	0.032689	1.0460	30.591	0.9560	0.9162	0.9167
4.800	4.895	108.228	-164.922	0.032675	1.0456	30.604	0.9564	0.9159	0.9164
4.903	5.000	108.528	-164.622	0.032622	1.0439	30.654	0.9580	0.9144	0.9149
5.000	5.099	108.805	-164.345	0.032573	1.0423	30.701	0.9594	0.9130	0.9135

TABLE 3 CONTINUED

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
5.069	5.169	109.000	-164.150	0.032538	1.0412	30.734	0.9605	0.9120	0.9125
5.123	5.224	109.150	-164.000	0.032511	1.0403	30.759	0.9613	0.9112	0.9117
5.200	5.303	109.365	-163.785	0.032472	1.0391	30.796	0.9624	0.9102	0.9107
5.400	5.506	109.909	-163.241	0.032374	1.0359	30.889	0.9653	0.9074	0.9079
5.434	5.541	110.000	-163.150	0.032358	1.0354	30.905	0.9658	0.9070	0.9074
5.490	5.599	110.150	-163.000	0.032330	1.0345	30.931	0.9666	0.9062	0.9067
5.600	5.710	110.439	-162.711	0.032278	1.0329	30.981	0.9682	0.9047	0.9052
5.800	5.914	110.955	-162.195	0.032184	1.0298	31.071	0.9710	0.9021	0.9026
5.818	5.932	111.000	-162.150	0.032176	1.0296	31.079	0.9713	0.9019	0.9023
5.877	5.993	111.150	-162.000	0.032148	1.0287	31.106	0.9721	0.9011	0.9016
5.884	6.000	111.168	-161.982	0.032145	1.0286	31.109	0.9722	0.9010	0.9015
6.000	6.118	111.459	-161.691	0.032092	1.0269	31.161	0.9738	0.8995	0.9000
6.200	6.322	111.950	-161.200	0.032001	1.0240	31.249	0.9766	0.8970	0.8975
6.221	6.343	112.000	-161.150	0.031992	1.0237	31.258	0.9768	0.8967	0.8972
6.283	6.407	112.150	-161.000	0.031964	1.0228	31.285	0.9777	0.8959	0.8964
6.400	6.526	112.430	-160.720	0.031912	1.0212	31.336	0.9793	0.8945	0.8950
6.600	6.730	112.899	-160.251	0.031825	1.0184	31.422	0.9820	0.8920	0.8925
6.644	6.775	113.000	-160.150	0.031806	1.0178	31.441	0.9826	0.8915	0.8920
6.709	6.841	113.150	-160.000	0.031778	1.0169	31.468	0.9834	0.8907	0.8912
6.800	6.934	113.357	-159.793	0.031739	1.0156	31.507	0.9846	0.8896	0.8901
6.865	7.000	113.504	-159.646	0.031712	1.0147	31.534	0.9855	0.8888	0.8893
7.000	7.138	113.806	-159.344	0.031655	1.0129	31.591	0.9873	0.8872	0.8877
7.088	7.227	114.000	-159.150	0.031618	1.0117	31.628	0.9884	0.8862	0.8867
7.156	7.297	114.150	-159.000	0.031590	1.0108	31.656	0.9893	0.8854	0.8859
7.200	7.342	114.246	-158.904	0.031571	1.0102	31.674	0.9899	0.8849	0.8854
7.400	7.546	114.677	-158.473	0.031489	1.0076	31.757	0.9924	0.8826	0.8831
7.552	7.701	115.000	-158.150	0.031428	1.0056	31.819	0.9944	0.8809	0.8814
7.600	7.750	115.100	-158.050	0.031409	1.0050	31.838	0.9950	0.8804	0.8808
7.624	7.774	115.150	-158.000	0.031399	1.0047	31.848	0.9953	0.8801	0.8806
7.800	7.954	115.514	-157.636	0.031329	1.0025	31.919	0.9975	0.8781	0.8786
7.845	8.000	115.607	-157.543	0.031311	1.0019	31.938	0.9981	0.8776	0.8781
8.000	8.158	115.921	-157.229	0.031250	1.0000	32.000	1.0000	0.8759	0.8764
8.039	8.198	116.000	-157.150	0.031235	0.9995	32.015	1.0005	0.8755	0.8760
8.114	8.274	116.150	-157.000	0.031206	0.9986	32.045	1.0014	0.8747	0.8752
8.200	8.362	116.321	-156.829	0.031173	0.9975	32.079	1.0025	0.8737	0.8742
8.400	8.566	116.714	-156.436	0.031096	0.9950	32.158	1.0050	0.8716	0.8721
8.548	8.717	117.000	-156.150	0.031040	0.9932	32.217	1.0068	0.8700	0.8705
8.600	8.770	117.099	-156.051	0.031020	0.9926	32.237	1.0074	0.8695	0.8699
8.626	8.797	117.150	-156.000	0.031010	0.9923	32.247	1.0078	0.8692	0.8697
8.800	8.974	117.479	-155.671	0.030946	0.9902	32.315	1.0099	0.8674	0.8679
8.826	9.000	117.528	-155.622	0.030936	0.9899	32.325	1.0102	0.8671	0.8676
9.000	9.177	117.852	-155.298	0.030872	0.9879	32.392	1.0123	0.8653	0.8658
9.080	9.259	118.000	-155.150	0.030842	0.9869	32.423	1.0133	0.8645	0.8650
9.162	9.343	118.150	-155.000	0.030812	0.9860	32.455	1.0142	0.8636	0.8641
9.200	9.381	118.219	-154.931	0.030798	0.9855	32.469	1.0147	0.8633	0.8637

TABLE 3 CONTINUED

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MCLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
9.400	9.585	118.581	-154.569	0.030726	0.9832	32.546	1.0171	0.8612	0.8617
9.600	9.789	118.937	-154.213	0.030654	0.9809	32.622	1.0195	0.8592	0.8597
9.636	9.826	119.000	-154.150	0.030642	0.9805	32.635	1.0199	0.8589	0.8593
9.721	9.913	119.150	-154.000	0.030611	0.9795	32.667	1.0209	0.8580	0.8585
9.800	9.993	119.288	-153.862	0.030584	0.9786	32.697	1.0218	0.8572	0.8577
9.807	10.000	119.299	-153.851	0.030581	0.9786	32.700	1.0219	0.8572	0.8576
10.000	10.197	119.633	-153.517	0.030513	0.9764	32.773	1.0242	0.8553	0.8557
10.200	10.401	119.974	-153.176	0.030444	0.9742	32.847	1.0265	0.8533	0.8538
10.215	10.417	120.000	-153.150	0.030438	0.9740	32.853	1.0267	0.8532	0.8536
10.304	10.508	120.150	-153.000	0.030408	0.9730	32.886	1.0277	0.8523	0.8528
10.400	10.605	120.310	-152.840	0.030375	0.9720	32.922	1.0289	0.8514	0.8518
10.600	10.809	120.641	-152.509	0.030307	0.9698	32.996	1.0312	0.8495	0.8499
10.787	11.000	120.947	-152.203	0.030243	0.9677	33.065	1.0333	0.8477	0.8481
10.800	11.013	120.968	-152.182	0.030239	0.9676	33.070	1.0335	0.8476	0.8480
10.820	11.033	121.000	-152.150	0.030232	0.9674	33.077	1.0337	0.8474	0.8478
10.913	11.128	121.150	-152.000	0.030201	0.9664	33.112	1.0348	0.8465	0.8470
11.000	11.217	121.290	-151.860	0.030172	0.9655	33.144	1.0358	0.8457	0.8461
11.200	11.421	121.608	-151.542	0.030105	0.9633	33.217	1.0381	0.8438	0.8443
11.400	11.625	121.923	-151.227	0.030039	0.9612	33.290	1.0404	0.8420	0.8424
11.450	11.675	122.000	-151.150	0.030023	0.9607	33.308	1.0409	0.8415	0.8420
11.546	11.774	122.150	-151.000	0.029991	0.9597	33.344	1.0420	0.8406	0.8411
11.600	11.829	122.233	-150.917	0.029973	0.9591	33.363	1.0426	0.8401	0.8406
11.768	12.000	122.490	-150.660	0.029919	0.9574	33.424	1.0445	0.8386	0.8390
11.800	12.033	122.539	-150.611	0.029908	0.9570	33.436	1.0449	0.8383	0.8388
12.000	12.237	122.842	-150.308	0.029844	0.9550	33.508	1.0472	0.8365	0.8369
12.106	12.344	123.000	-150.150	0.029810	0.9539	33.546	1.0484	0.8355	0.8360
12.200	12.441	123.141	-150.009	0.029779	0.9529	33.580	1.0494	0.8347	0.8351
12.206	12.447	123.150	-150.000	0.029777	0.9528	33.583	1.0495	0.8346	0.8351
12.400	12.644	123.436	-149.714	0.029716	0.9509	33.652	1.0517	0.8329	0.8334
12.600	12.848	123.728	-149.422	0.029652	0.9488	33.724	1.0539	0.8311	0.8316
12.749	13.000	123.943	-149.207	0.029605	0.9473	33.778	1.0556	0.8298	0.8303
12.788	13.040	124.000	-149.150	0.029593	0.9469	33.792	1.0560	0.8295	0.8299
12.800	13.052	124.017	-149.133	0.029589	0.9468	33.796	1.0562	0.8294	0.8298
12.893	13.147	124.150	-149.000	0.029560	0.9459	33.829	1.0572	0.8285	0.8290
13.000	13.256	124.303	-148.847	0.029527	0.9448	33.868	1.0584	0.8276	0.8281
13.200	13.460	124.585	-148.565	0.029465	0.9428	33.939	1.0606	0.8259	0.8263
13.400	13.664	124.864	-148.286	0.029403	0.9409	34.010	1.0629	0.8241	0.8246
13.498	13.764	125.000	-148.150	0.029373	0.9399	34.045	1.0640	0.8233	0.8237
13.600	13.868	125.141	-148.009	0.029341	0.9389	34.082	1.0651	0.8224	0.8229
13.607	13.875	125.150	-148.000	0.029339	0.9388	34.084	1.0652	0.8224	0.8228
13.729	14.000	125.318	-147.832	0.029302	0.9376	34.128	1.0665	0.8213	0.8218
13.800	14.072	125.414	-147.736	0.029280	0.9369	34.153	1.0673	0.8207	0.8211
14.000	14.276	125.685	-147.465	0.029220	0.9350	34.224	1.0695	0.8190	0.8194
14.200	14.480	125.953	-147.197	0.029159	0.9331	34.295	1.0717	0.8173	0.8177
14.236	14.516	126.000	-147.150	0.029148	0.9327	34.307	1.0721	0.8170	0.8174

TABLE 3 CONTINUED

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
14.349	14.632	126.150	-147.000	0.029114	0.9316	34.347	1.0734	0.8160	0.8165
14.400	14.684	126.218	-146.932	0.029099	0.9311	34.366	1.0740	0.8156	0.8161
14.600	14.888	126.480	-146.670	0.029039	0.9292	34.436	1.0762	0.8139	0.8144
14.710	15.000	126.624	-146.526	0.029006	0.9282	34.475	1.0774	0.8130	0.8135
14.800	15.092	126.740	-146.410	0.028980	0.9273	34.507	1.0784	0.8123	0.8127
15.000	15.296	126.998	-146.152	0.028920	0.9254	34.578	1.0806	0.8106	0.8111
15.002	15.298	127.000	-146.150	0.028920	0.9254	34.578	1.0806	0.8106	0.8110
15.119	15.417	127.150	-146.000	0.028885	0.9243	34.620	1.0819	0.8096	0.8101
15.200	15.500	127.253	-145.897	0.028861	0.9235	34.649	1.0828	0.8090	0.8094
15.400	15.704	127.505	-145.645	0.028802	0.9216	34.719	1.0850	0.8073	0.8077
15.600	15.908	127.756	-145.394	0.028744	0.9198	34.790	1.0872	0.8057	0.8061
15.691	16.000	127.868	-145.282	0.028718	0.9189	34.822	1.0882	0.8049	0.8054
15.797	16.109	128.000	-145.150	0.028687	0.9179	34.860	1.0894	0.8041	0.8045
15.800	16.112	128.004	-145.146	0.028690	0.9181	34.855	1.0893	0.8042	0.8046
15.919	16.233	128.150	-145.000	0.028656	0.9170	34.897	1.0906	0.8032	0.8036
16.000	16.315	128.249	-144.901	0.028633	0.9162	34.925	1.0915	0.8025	0.8030
16.200	16.519	128.493	-144.657	0.028575	0.9144	34.996	1.0937	0.8009	0.8014
16.400	16.723	128.734	-144.416	0.028518	0.9125	35.066	1.0959	0.7993	0.7998
16.600	16.927	128.973	-144.177	0.028461	0.9107	35.136	1.0981	0.7977	0.7982
16.622	16.950	129.000	-144.150	0.028454	0.9105	35.144	1.0983	0.7975	0.7980
16.671	17.000	129.058	-144.092	0.028440	0.9101	35.161	1.0988	0.7972	0.7976
16.749	17.079	129.150	-144.000	0.028418	0.9093	35.189	1.0997	0.7965	0.7970
16.800	17.131	129.211	-143.939	0.028404	0.9089	35.207	1.1003	0.7961	0.7966
17.000	17.335	129.446	-143.704	0.028347	0.9071	35.277	1.1025	0.7945	0.7950
17.200	17.539	129.679	-143.471	0.028290	0.9053	35.348	1.1047	0.7930	0.7934
17.400	17.743	129.910	-143.240	0.028234	0.9035	35.418	1.1069	0.7914	0.7918
17.478	17.823	130.000	-143.150	0.028212	0.9028	35.446	1.1077	0.7908	0.7912
17.600	17.947	130.140	-143.010	0.028178	0.9017	35.489	1.1091	0.7898	0.7902
17.609	17.956	130.150	-143.000	0.028175	0.9016	35.492	1.1092	0.7897	0.7902
17.652	18.000	130.199	-142.951	0.028163	0.9012	35.507	1.1096	0.7894	0.7898
17.800	18.151	130.367	-142.783	0.028122	0.8999	35.560	1.1113	0.7882	0.7887
18.000	18.355	130.593	-142.557	0.028066	0.8981	35.630	1.1135	0.7867	0.7871
18.200	18.559	130.817	-142.333	0.028010	0.8963	35.701	1.1157	0.7851	0.7855
18.365	18.727	131.000	-142.150	0.027964	0.8948	35.760	1.1175	0.7838	0.7842
18.400	18.763	131.039	-142.111	0.027955	0.8945	35.772	1.1179	0.7835	0.7840
18.501	18.865	131.150	-142.000	0.027927	0.8936	35.808	1.1190	0.7828	0.7832
18.600	18.967	131.259	-141.891	0.027899	0.8927	35.843	1.1201	0.7820	0.7824
18.633	19.000	131.295	-141.855	0.027890	0.8925	35.855	1.1205	0.7817	0.7822
18.800	19.171	131.478	-141.672	0.027844	0.8910	35.914	1.1224	0.7804	0.7809
19.000	19.375	131.695	-141.455	0.027789	0.8892	35.986	1.1246	0.7789	0.7793
19.200	19.579	131.911	-141.239	0.027734	0.8874	36.057	1.1268	0.7774	0.7778
19.283	19.664	132.000	-141.150	0.027711	0.8867	36.087	1.1278	0.7767	0.7771
19.400	19.782	132.124	-141.026	0.027679	0.8857	36.129	1.1291	0.7758	0.7762
19.424	19.807	132.150	-141.000	0.027672	0.8855	36.137	1.1293	0.7756	0.7761
19.600	19.986	132.337	-140.813	0.027624	0.8839	36.200	1.1313	0.7743	0.7747

TABLE 3 CONTINUED

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS -	DIMENSIONLESS
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
19.613	20.000	132.351	-140.799	0.027620	0.8838	36.205	1.1315	0.7742	0.7746
19.800	20.190	132.547	-140.603	0.027569	0.8822	36.272	1.1335	0.7727	0.7732
20.000	20.394	132.756	-140.394	0.027515	0.8804	36.344	1.1358	0.7712	0.7716
20.200	20.598	132.964	-140.186	0.027460	0.8787	36.416	1.1380	0.7697	0.7701
20.235	20.634	133.000	-140.150	0.027451	0.8784	36.429	1.1384	0.7694	0.7698
20.380	20.782	133.150	-140.000	0.027411	0.8771	36.481	1.1401	0.7683	0.7687
20.400	20.802	133.170	-139.980	0.027406	0.8770	36.488	1.1403	0.7682	0.7686
20.594	21.000	133.369	-139.781	0.027353	0.8753	36.558	1.1425	0.7667	0.7671
20.600	21.006	133.375	-139.775	0.027352	0.8752	36.561	1.1426	0.7666	0.7671
20.800	21.210	133.578	-139.572	0.027298	0.8735	36.633	1.1448	0.7651	0.7655
21.000	21.414	133.780	-139.370	0.027244	0.8718	36.706	1.1471	0.7636	0.7640
21.200	21.618	133.981	-139.169	0.027190	0.8700	36.779	1.1494	0.7621	0.7625
21.219	21.637	134.000	-139.150	0.027184	0.8699	36.786	1.1496	0.7620	0.7624
21.370	21.791	134.150	-139.000	0.027144	0.8686	36.841	1.1513	0.7608	0.7612
21.400	21.822	134.180	-138.970	0.027136	0.8683	36.852	1.1517	0.7606	0.7610
21.575	22.000	134.353	-138.797	0.027089	0.8668	36.916	1.1537	0.7593	0.7597
21.600	22.026	134.378	-138.772	0.027082	0.8666	36.925	1.1540	0.7591	0.7595
21.800	22.230	134.575	-138.575	0.027028	0.8649	36.999	1.1562	0.7576	0.7580
22.000	22.434	134.770	-138.380	0.026974	0.8631	37.072	1.1585	0.7561	0.7565
22.200	22.638	134.964	-138.186	0.026921	0.8614	37.146	1.1609	0.7546	0.7550
22.237	22.676	135.000	-138.150	0.026911	0.8611	37.160	1.1613	0.7543	0.7547
22.393	22.835	135.150	-138.000	0.026869	0.8598	37.218	1.1631	0.7531	0.7535
22.400	22.842	135.157	-137.993	0.026867	0.8597	37.220	1.1632	0.7531	0.7535
22.555	23.000	135.305	-137.845	0.026826	0.8584	37.278	1.1650	0.7519	0.7523
22.600	23.046	135.348	-137.802	0.026814	0.8580	37.294	1.1655	0.7516	0.7520
22.800	23.250	135.538	-137.612	0.026760	0.8563	37.369	1.1678	0.7501	0.7505
23.000	23.453	135.727	-137.423	0.026707	0.8546	37.444	1.1702	0.7486	0.7490
23.200	23.657	135.915	-137.235	0.026653	0.8529	37.519	1.1725	0.7471	0.7475
23.291	23.750	136.000	-137.150	0.026629	0.8521	37.553	1.1736	0.7464	0.7468
23.400	23.861	136.102	-137.048	0.026600	0.8512	37.594	1.1749	0.7456	0.7460
23.452	23.914	136.150	-137.000	0.026586	0.8507	37.613	1.1755	0.7452	0.7456
23.536	24.000	136.228	-136.922	0.026564	0.8500	37.645	1.1765	0.7446	0.7450
23.600	24.065	136.288	-136.862	0.026547	0.8495	37.670	1.1772	0.7441	0.7445
23.800	24.269	136.472	-136.678	0.026493	0.8478	37.745	1.1796	0.7426	0.7430
24.000	24.473	136.655	-136.495	0.026440	0.8461	37.821	1.1820	0.7411	0.7415
24.200	24.677	136.838	-136.312	0.026387	0.8443	37.898	1.1843	0.7396	0.7400
24.379	24.860	137.000	-136.150	0.026339	0.8428	37.966	1.1865	0.7383	0.7387
24.400	24.881	137.019	-136.131	0.026334	0.8426	37.974	1.1867	0.7381	0.7385
24.517	25.000	137.124	-136.026	0.026303	0.8417	38.019	1.1881	0.7372	0.7376
24.546	25.029	137.150	-136.000	0.026295	0.8414	38.030	1.1885	0.7370	0.7374
24.600	25.085	137.199	-135.951	0.026280	0.8409	38.051	1.1891	0.7366	0.7370
24.800	25.289	137.378	-135.772	0.026227	0.8392	38.128	1.1916	0.7351	0.7355
25.000	25.493	137.556	-135.594	0.026174	0.8375	38.206	1.1940	0.7336	0.7340
25.200	25.697	137.733	-135.417	0.026121	0.8358	38.284	1.1964	0.7321	0.7325
25.400	25.901	137.909	-135.241	0.026068	0.8341	38.362	1.1988	0.7307	0.7311

TABLE 3 CONTINUED

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
25.497	26.000	137.994	-135.156	0.026042	0.8333	38.400	1.2000	0.7299	0.7303
25.504	26.007	138.000	-135.150	0.026040	0.8332	38.402	1.2001	0.7299	0.7303
25.600	26.105	138.084	-135.066	0.026014	0.8324	38.440	1.2013	0.7292	0.7296
25.676	26.182	138.150	-135.000	0.025994	0.8318	38.470	1.2022	0.7286	0.7290
25.800	26.309	138.258	-134.892	0.025961	0.8307	38.519	1.2038	0.7277	0.7281
26.000	26.513	138.431	-134.719	0.025908	0.8290	38.598	1.2062	0.7262	0.7266
26.200	26.717	138.603	-134.547	0.025855	0.8273	38.677	1.2087	0.7247	0.7251
26.400	26.921	138.774	-134.376	0.025802	0.8256	38.757	1.2112	0.7232	0.7236
26.478	27.000	138.840	-134.310	0.025781	0.8250	38.788	1.2122	0.7226	0.7230
26.600	27.124	138.944	-134.206	0.025748	0.8239	38.837	1.2137	0.7217	0.7221
26.666	27.192	139.000	-134.150	0.025731	0.8234	38.864	1.2145	0.7212	0.7216
26.800	27.328	139.113	-134.037	0.025695	0.8222	38.918	1.2162	0.7202	0.7206
26.843	27.373	139.150	-134.000	0.025683	0.8218	38.936	1.2168	0.7199	0.7203
27.000	27.532	139.282	-133.868	0.025642	0.8205	38.999	1.2188	0.7187	0.7191
27.200	27.736	139.449	-133.701	0.025588	0.8188	39.080	1.2213	0.7172	0.7176
27.400	27.940	139.616	-133.534	0.025535	0.8171	39.162	1.2239	0.7157	0.7161
27.459	28.000	139.664	-133.486	0.025519	0.8166	39.186	1.2246	0.7153	0.7157
27.600	28.144	139.781	-133.369	0.025482	0.8154	39.244	1.2264	0.7142	0.7146
27.800	28.348	139.946	-133.204	0.025428	0.8137	39.327	1.2290	0.7127	0.7131
27.866	28.415	140.000	-133.150	0.025411	0.8131	39.354	1.2299	0.7122	0.7126
28.000	28.552	140.110	-133.040	0.025375	0.8120	39.410	1.2316	0.7112	0.7116
28.049	28.602	140.150	-133.000	0.025361	0.8115	39.430	1.2322	0.7109	0.7112
28.200	28.756	140.273	-132.877	0.025321	0.8102	39.493	1.2342	0.7097	0.7101
28.400	28.960	140.435	-132.715	0.025267	0.8085	39.577	1.2368	0.7082	0.7086
28.439	29.000	140.467	-132.683	0.025257	0.8082	39.593	1.2373	0.7079	0.7083
28.600	29.164	140.597	-132.553	0.025214	0.8068	39.661	1.2395	0.7067	0.7071
28.800	29.368	140.757	-132.393	0.025160	0.8051	39.746	1.2421	0.7052	0.7056
29.000	29.572	140.917	-132.233	0.025106	0.8034	39.831	1.2448	0.7037	0.7041
29.104	29.678	141.000	-132.150	0.025078	0.8025	39.876	1.2462	0.7029	0.7033
29.200	29.776	141.076	-132.074	0.025052	0.8016	39.917	1.2474	0.7022	0.7026
29.294	29.871	141.150	-132.000	0.025027	0.8008	39.957	1.2487	0.7015	0.7019
29.400	29.980	141.234	-131.916	0.024998	0.7999	40.003	1.2501	0.7007	0.7011
29.420	30.000	141.250	-131.900	0.024993	0.7997	40.012	1.2504	0.7005	0.7009
29.600	30.184	141.391	-131.759	0.024944	0.7982	40.090	1.2528	0.6992	0.6995
29.800	30.388	141.548	-131.602	0.024890	0.7964	40.177	1.2556	0.6976	0.6980
30.000	30.591	141.704	-131.446	0.024836	0.7947	40.265	1.2583	0.6961	0.6965
30.200	30.795	141.859	-131.291	0.024781	0.7930	40.353	1.2611	0.6946	0.6950
30.383	30.982	142.000	-131.150	0.024732	0.7914	40.434	1.2636	0.6932	0.6936
30.400	30.999	142.013	-131.137	0.024727	0.7912	40.442	1.2638	0.6931	0.6935
30.401	31.000	142.014	-131.136	0.024727	0.7912	40.442	1.2639	0.6931	0.6934
30.578	31.181	142.150	-131.000	0.024678	0.7897	40.521	1.2663	0.6917	0.6921
30.600	31.203	142.167	-130.983	0.024672	0.7895	40.531	1.2666	0.6915	0.6919
30.800	31.407	142.319	-130.831	0.024618	0.7877	40.621	1.2695	0.6900	0.6904
31.000	31.611	142.472	-130.678	0.024563	0.7860	40.711	1.2723	0.6885	0.6889
31.200	31.815	142.623	-130.527	0.024508	0.7842	40.803	1.2751	0.6869	0.6873

TABLE 3 CONTINUED

SATURATED LIQUID CXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
31.381	32.000	142.760	-130.390	0.024458	0.7826	40.886	1.2777	0.6855	0.6859
31.400	32.019	142.774	-130.376	0.024453	0.7825	40.894	1.2780	0.6854	0.6858
31.600	32.223	142.924	-130.226	0.024398	0.7807	40.987	1.2809	0.6839	0.6842
31.702	32.327	143.000	-130.150	0.024370	0.7798	41.034	1.2824	0.6831	0.6834
31.800	32.427	143.073	-130.077	0.024343	0.7789	41.080	1.2838	0.6823	0.6827
31.904	32.533	143.150	-130.000	0.024314	0.7780	41.128	1.2853	0.6815	0.6819
32.000	32.631	143.221	-129.929	0.024287	0.7772	41.173	1.2867	0.6808	0.6811
32.200	32.835	143.369	-129.781	0.024232	0.7754	41.268	1.2897	0.6792	0.6796
32.362	33.000	143.488	-129.662	0.024187	0.7740	41.345	1.2921	0.6779	0.6783
32.400	33.039	143.516	-129.634	0.024176	0.7736	41.363	1.2926	0.6776	0.6780
32.600	33.243	143.663	-129.487	0.024120	0.7718	41.459	1.2956	0.6761	0.6764
32.800	33.447	143.809	-129.341	0.024064	0.7700	41.555	1.2986	0.6745	0.6749
33.000	33.651	143.954	-129.196	0.024008	0.7682	41.652	1.3017	0.6729	0.6733
33.064	33.716	144.000	-129.150	0.023990	0.7677	41.683	1.3027	0.6724	0.6728
33.200	33.855	144.098	-129.052	0.023952	0.7664	41.750	1.3047	0.6714	0.6717
33.272	33.928	144.150	-129.000	0.023932	0.7658	41.785	1.3058	0.6708	0.6712
33.343	34.000	144.201	-128.949	0.023912	0.7651	41.820	1.3069	0.6702	0.6706
33.400	34.059	144.242	-128.908	0.023896	0.7646	41.849	1.3078	0.6698	0.6701
33.600	34.262	144.385	-128.765	0.023839	0.7628	41.948	1.3109	0.6682	0.6685
33.800	34.466	144.528	-128.622	0.023782	0.7610	42.049	1.3141	0.6666	0.6670
34.000	34.670	144.670	-128.480	0.023725	0.7592	42.150	1.3172	0.6650	0.6654
34.200	34.874	144.811	-128.339	0.023668	0.7573	42.252	1.3204	0.6634	0.6637
34.323	35.000	144.898	-128.252	0.023632	0.7562	42.315	1.3224	0.6624	0.6628
34.400	35.078	144.952	-128.198	0.023610	0.7555	42.354	1.3236	0.6618	0.6621
34.468	35.148	145.000	-128.150	0.023591	0.7549	42.390	1.3247	0.6612	0.6616
34.600	35.282	145.092	-128.058	0.023553	0.7537	42.458	1.3269	0.6602	0.6605
34.683	35.367	145.150	-128.000	0.023529	0.7529	42.501	1.3282	0.6595	0.6598
34.800	35.486	145.232	-127.918	0.023495	0.7518	42.563	1.3301	0.6585	0.6589
35.000	35.690	145.370	-127.780	0.023437	0.7499	42.668	1.3334	0.6569	0.6573
35.200	35.894	145.509	-127.641	0.023378	0.7481	42.775	1.3368	0.6553	0.6556
35.304	36.000	145.580	-127.570	0.023348	0.7471	42.831	1.3385	0.6544	0.6548
35.400	36.098	145.646	-127.504	0.023320	0.7462	42.882	1.3401	0.6536	0.6540
35.600	36.302	145.783	-127.367	0.023261	0.7443	42.991	1.3435	0.6520	0.6523
35.800	36.506	145.920	-127.230	0.023202	0.7424	43.100	1.3469	0.6503	0.6507
35.918	36.626	146.000	-127.150	0.023167	0.7413	43.165	1.3490	0.6493	0.6497
36.000	36.710	146.056	-127.094	0.023142	0.7405	43.211	1.3504	0.6487	0.6490
36.139	36.851	146.150	-127.000	0.023101	0.7392	43.288	1.3528	0.6475	0.6478
36.200	36.914	146.191	-126.959	0.023083	0.7386	43.323	1.3539	0.6470	0.6473
36.285	37.000	146.248	-126.902	0.023057	0.7378	43.370	1.3554	0.6463	0.6466
36.400	37.118	146.326	-126.824	0.023023	0.7367	43.435	1.3574	0.6453	0.6457
36.600	37.322	146.460	-126.690	0.022962	0.7348	43.549	1.3610	0.6436	0.6440
36.800	37.526	146.594	-126.556	0.022902	0.7328	43.665	1.3646	0.6419	0.6423
37.000	37.729	146.727	-126.423	0.022841	0.7309	43.781	1.3682	0.6402	0.6406
37.200	37.933	146.860	-126.290	0.022780	0.7289	43.899	1.3719	0.6385	0.6388
37.265	38.000	146.903	-126.247	0.022760	0.7283	43.937	1.3731	0.6379	0.6383

TABLE 3 CONTINUED

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
37.400	38.137	146.992	-126.158	0.022718	0.7270	44.017	1.3756	0.6368	0.6371
37.413	38.150	147.000	-126.150	0.022714	0.7268	44.025	1.3758	0.6367	0.6370
37.600	38.341	147.123	-126.027	0.022656	0.7250	44.138	1.3794	0.6350	0.6354
37.641	38.383	147.150	-126.000	0.022644	0.7246	44.162	1.3801	0.6347	0.6350
37.800	38.545	147.254	-125.896	0.022594	0.7230	44.259	1.3831	0.6333	0.6336
38.000	38.749	147.384	-125.766	0.022532	0.7210	44.382	1.3870	0.6315	0.6319
38.200	38.953	147.514	-125.636	0.022469	0.7190	44.507	1.3909	0.6298	0.6301
38.246	39.000	147.544	-125.606	0.022454	0.7185	44.535	1.3918	0.6294	0.6297
38.400	39.157	147.644	-125.506	0.022405	0.7169	44.632	1.3948	0.6280	0.6283
38.600	39.361	147.772	-125.378	0.022341	0.7149	44.760	1.3988	0.6262	0.6266
38.800	39.565	147.901	-125.249	0.022277	0.7128	44.889	1.4028	0.6244	0.6248
38.955	39.723	148.000	-125.150	0.022227	0.7112	44.990	1.4060	0.6230	0.6233
39.000	39.769	148.029	-125.121	0.022213	0.7108	45.020	1.4069	0.6226	0.6229
39.191	39.964	148.150	-125.000	0.022150	0.7088	45.146	1.4109	0.6209	0.6212
39.200	39.973	148.156	-124.994	0.022147	0.7087	45.152	1.4110	0.6208	0.6211
39.227	40.000	148.173	-124.977	0.022139	0.7084	45.170	1.4116	0.6205	0.6209
39.400	40.177	148.283	-124.867	0.022082	0.7066	45.286	1.4152	0.6189	0.6193
39.600	40.381	148.409	-124.741	0.022016	0.7045	45.422	1.4195	0.6171	0.6174
39.800	40.585	148.535	-124.615	0.021949	0.7024	45.560	1.4238	0.6152	0.6156
40.000	40.789	148.660	-124.490	0.021882	0.7002	45.699	1.4282	0.6133	0.6137
40.200	40.993	148.785	-124.365	0.021815	0.6980	45.841	1.4326	0.6114	0.6118
40.207	41.000	148.789	-124.361	0.021812	0.6980	45.846	1.4327	0.6114	0.6117
40.400	41.197	148.909	-124.241	0.021746	0.6959	45.985	1.4371	0.6095	0.6099
40.547	41.347	149.000	-124.150	0.021696	0.6942	46.092	1.4404	0.6081	0.6084
40.600	41.400	149.033	-124.117	0.021678	0.6937	46.131	1.4416	0.6076	0.6079
40.790	41.594	149.150	-124.000	0.021612	0.6915	46.272	1.4460	0.6058	0.6061
40.800	41.604	149.156	-123.994	0.021608	0.6914	46.279	1.4463	0.6057	0.6060
41.000	41.808	149.279	-123.871	0.021538	0.6892	46.429	1.4510	0.6037	0.6040
41.188	42.000	149.394	-123.756	0.021472	0.6871	46.573	1.4555	0.6018	0.6022
41.200	42.012	149.401	-123.749	0.021467	0.6869	46.582	1.4557	0.6017	0.6020
41.400	42.216	149.523	-123.627	0.021396	0.6846	46.738	1.4606	0.5997	0.6000
41.600	42.420	149.645	-123.505	0.021324	0.6823	46.896	1.4655	0.5977	0.5980
41.800	42.624	149.765	-123.385	0.021251	0.6800	47.056	1.4706	0.5956	0.5960
42.000	42.828	149.886	-123.264	0.021178	0.6777	47.220	1.4757	0.5936	0.5939
42.169	43.000	149.987	-123.163	0.021115	0.6757	47.360	1.4801	0.5918	0.5922
42.190	43.022	150.000	-123.150	0.021107	0.6754	47.378	1.4806	0.5916	0.5919
42.200	43.032	150.006	-123.144	0.021103	0.6753	47.386	1.4809	0.5915	0.5918
42.400	43.236	150.126	-123.024	0.021028	0.6729	47.556	1.4862	0.5894	0.5897
42.441	43.278	150.150	-123.000	0.021012	0.6724	47.591	1.4873	0.5890	0.5893
42.600	43.440	150.245	-122.905	0.020952	0.6704	47.729	1.4916	0.5873	0.5876
42.800	43.644	150.363	-122.787	0.020875	0.6680	47.905	1.4971	0.5851	0.5854
43.000	43.848	150.482	-122.668	0.020797	0.6655	48.085	1.5027	0.5829	0.5832
43.149	44.000	150.569	-122.581	0.020738	0.6636	48.221	1.5070	0.5813	0.5816
43.200	44.052	150.599	-122.551	0.020718	0.6629	48.268	1.5084	0.5807	0.5810
43.400	44.256	150.717	-122.433	0.020637	0.6604	48.456	1.5143	0.5784	0.5788

TABLE 3 CONTINUED

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
43.600	44.460	150.833	-122.317	0.020556	0.6578	48.647	1.5203	0.5762	0.5765
43.800	44.664	150.950	-122.200	0.020474	0.6551	48.843	1.5264	0.5739	0.5742
43.886	44.751	151.000	-122.150	0.020438	0.6540	48.929	1.5291	0.5729	0.5732
44.000	44.868	151.066	-122.084	0.020390	0.6525	49.043	1.5327	0.5715	0.5718
44.130	45.000	151.141	-122.009	0.020335	0.6507	49.176	1.5368	0.5700	0.5703
44.145	45.016	151.150	-122.000	0.020329	0.6505	49.192	1.5373	0.5698	0.5701
44.200	45.071	151.182	-121.968	0.020305	0.6497	49.248	1.5391	0.5691	0.5694
44.400	45.275	151.297	-121.853	0.020219	0.6470	49.459	1.5456	0.5667	0.5670
44.600	45.479	151.411	-121.739	0.020131	0.6442	49.675	1.5524	0.5643	0.5646
44.800	45.683	151.526	-121.624	0.020042	0.6413	49.896	1.5593	0.5617	0.5621
45.000	45.887	151.640	-121.510	0.019951	0.6384	50.124	1.5664	0.5592	0.5595
45.111	46.000	151.702	-121.448	0.019900	0.6368	50.252	1.5704	0.5578	0.5581
45.200	46.091	151.753	-121.397	0.019858	0.6354	50.358	1.5737	0.5566	0.5569
45.400	46.295	151.866	-121.284	0.019763	0.6324	50.599	1.5813	0.5539	0.5542
45.600	46.499	151.979	-121.171	0.019667	0.6293	50.848	1.5891	0.5512	0.5515
45.638	46.538	152.000	-121.150	0.019648	0.6287	50.896	1.5906	0.5507	0.5510
45.800	46.703	152.091	-121.059	0.019568	0.6261	51.105	1.5971	0.5485	0.5488
45.906	46.811	152.150	-121.000	0.019515	0.6244	51.244	1.6014	0.5470	0.5473
46.000	46.907	152.203	-120.947	0.019467	0.6229	51.370	1.6054	0.5456	0.5459
46.091	47.000	152.253	-120.897	0.019420	0.6214	51.494	1.6093	0.5443	0.5446
46.200	47.111	152.314	-120.836	0.019363	0.6196	51.645	1.6140	0.5427	0.5430
46.400	47.315	152.425	-120.725	0.019257	0.6162	51.930	1.6229	0.5397	0.5400
46.600	47.519	152.536	-120.614	0.019147	0.6127	52.226	1.6321	0.5367	0.5370
46.800	47.723	152.646	-120.504	0.019035	0.6091	52.535	1.6418	0.5335	0.5338
47.000	47.927	152.755	-120.395	0.018919	0.6054	52.857	1.6518	0.5303	0.5306
47.072	48.000	152.795	-120.355	0.018876	0.6040	52.976	1.6556	0.5291	0.5294
47.200	48.131	152.865	-120.285	0.018799	0.6016	53.193	1.6624	0.5269	0.5272
47.400	48.335	152.974	-120.176	0.018675	0.5976	53.547	1.6734	0.5235	0.5237
47.448	48.384	153.000	-120.150	0.018645	0.5966	53.634	1.6761	0.5226	0.5229
47.600	48.538	153.082	-120.068	0.018547	0.5935	53.918	1.6850	0.5198	0.5201
47.725	48.666	153.150	-120.000	0.018463	0.5908	54.161	1.6926	0.5175	0.5178
47.800	48.742	153.191	-119.959	0.018412	0.5892	54.311	1.6973	0.5161	0.5164
48.000	48.946	153.298	-119.852	0.018272	0.5847	54.728	1.7103	0.5122	0.5124
48.053	49.000	153.327	-119.823	0.018234	0.5835	54.841	1.7139	0.5111	0.5114
48.200	49.150	153.406	-119.744	0.018125	0.5800	55.171	1.7242	0.5080	0.5083
48.400	49.354	153.513	-119.637	0.017970	0.5750	55.647	1.7390	0.5037	0.5040
48.600	49.558	153.619	-119.531	0.017806	0.5698	56.160	1.7551	0.4991	0.4994
48.800	49.762	153.726	-119.424	0.017631	0.5642	56.718	1.7725	0.4942	0.4945
49.000	49.966	153.832	-119.318	0.017442	0.5581	57.332	1.7917	0.4889	0.4892
49.033	50.000	153.849	-119.301	0.017409	0.5571	57.440	1.7951	0.4880	0.4882
49.200	50.170	153.937	-119.213	0.017237	0.5516	58.015	1.8130	0.4831	0.4834
49.320	50.292	154.000	-119.150	0.017104	0.5473	58.465	1.8271	0.4794	0.4797
49.400	50.374	154.042	-119.108	0.017010	0.5443	58.789	1.8372	0.4768	0.4770
49.600	50.578	154.147	-119.003	0.016754	0.5361	59.687	1.8653	0.4696	0.4699
49.606	50.584	154.150	-119.000	0.016746	0.5359	59.715	1.8662	0.4694	0.4696

TABLE 3 CONTINUED

SATURATED LIQUID OXYGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
49.800	50.782	154.251	-118.899	0.016456	0.5266	60.767	1.8990	0.4613	0.4615
50.000	50.986	154.355	-118.795	0.016091	0.5149	62.146	1.9421	0.4510	0.4513
50.014	51.000	154.363	-118.787	0.016062	0.5140	62.258	1.9456	0.4502	0.4505
50.427	51.421	154.576	-118.574	0.013630	0.4361	73.368	2.2928	0.3820	0.3822

TABLE 4 DENSITY OF COMPRESSED LIQUID OXYGEN

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM3

BAR KP/CM2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.29E	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
88.0		1.0089	1.0091	1.0095	1.0099	1.0102	1.0106	1.0115	1.0124	1.0133	1.0142	1.0151	1.0160
-185.15		1.0095	1.0097	1.0100	1.0104	1.0108	1.0111	1.0121	1.0130	1.0139	1.0148	1.0157	1.0166
0.802		1.1518	1.1520	1.1525	1.1529	1.1533	1.1537	1.1548	1.1558	1.1568	1.1579	1.1589	1.1599
88.1		1.0085	1.0087	1.0091	1.0094	1.0098	1.0102	1.0111	1.0120	1.0129	1.0138	1.0147	1.015E
-185.05		1.0090	1.0092	1.0096	1.0100	1.0103	1.0107	1.0116	1.0126	1.0135	1.0144	1.0153	1.0161
0.810		1.1513	1.1515	1.1520	1.1524	1.1528	1.1532	1.1543	1.1553	1.1564	1.1574	1.1584	1.1594
88.2		1.0081	1.0082	1.0086	1.0090	1.0094	1.0097	1.0107	1.0116	1.0125	1.0134	1.0143	1.0152
-184.95		1.0086	1.0088	1.0092	1.0095	1.0099	1.0103	1.0112	1.0121	1.0130	1.0139	1.0148	1.0157
0.819		1.1508	1.1510	1.1515	1.1519	1.1523	1.1527	1.1538	1.1548	1.1559	1.1569	1.1579	1.1590
88.3		1.0076	1.0078	1.0082	1.0086	1.0089	1.0093	1.0102	1.0112	1.0121	1.0130	1.0139	1.0148
-184.85		1.0082	1.0084	1.0087	1.0091	1.0095	1.0099	1.0108	1.0117	1.0126	1.0135	1.0144	1.0153
0.828		1.1503	1.1506	1.1510	1.1514	1.1518	1.1523	1.1533	1.1544	1.1554	1.1564	1.1575	1.1585
88.4		1.0072	1.0074	1.0078	1.0081	1.0085	1.0089	1.0098	1.0107	1.0116	1.0125	1.0134	1.0143
-184.75		1.0077	1.0079	1.0083	1.0087	1.0091	1.0094	1.0104	1.0113	1.0122	1.0131	1.0140	1.0149
0.838		1.1498	1.1501	1.1505	1.1509	1.1513	1.1518	1.1528	1.1539	1.1549	1.1560	1.1570	1.1580
88.5		1.0068	1.0070	1.0073	1.0077	1.0081	1.0085	1.0094	1.0103	1.0112	1.0121	1.0130	1.0139
-184.65		1.0073	1.0075	1.0079	1.0083	1.0086	1.0090	1.0099	1.0109	1.0118	1.0127	1.0136	1.0145
0.847		1.1493	1.1496	1.1500	1.1504	1.1509	1.1513	1.1523	1.1534	1.1544	1.1555	1.1565	1.1575
88.6		1.0063	1.0065	1.0069	1.0073	1.0076	1.0080	1.0090	1.0099	1.0108	1.0117	1.012E	1.0135
-184.55		1.0069	1.0071	1.0074	1.0078	1.0082	1.0086	1.0095	1.0104	1.0113	1.0123	1.0132	1.0141
0.856		1.1489	1.1491	1.1495	1.1499	1.1504	1.1508	1.1519	1.1529	1.1540	1.1550	1.1560	1.1571
88.7		1.0059	1.0061	1.0065	1.0068	1.0072	1.0076	1.0085	1.0095	1.0104	1.0113	1.0122	1.0131
-184.45		1.0064	1.0066	1.0070	1.0074	1.0078	1.0081	1.0091	1.0100	1.0109	1.0118	1.0127	1.013E
0.865		1.1484	1.1486	1.1490	1.1494	1.1499	1.1503	1.1514	1.1524	1.1535	1.1545	1.1555	1.1566
88.8		1.0055	1.0057	1.0060	1.0064	1.0068	1.0072	1.0081	1.0090	1.0099	1.0109	1.0118	1.0127
-184.35		1.0060	1.0062	1.0066	1.0070	1.0073	1.0077	1.0087	1.0096	1.0105	1.0114	1.0123	1.0132
0.875		1.1479	1.1481	1.1485	1.1489	1.1494	1.1498	1.1509	1.1519	1.1530	1.1540	1.1551	1.1561
88.9		1.0050	1.0052	1.0056	1.0060	1.0064	1.0067	1.0077	1.0086	1.0095	1.0104	1.0114	1.0123
-184.25		1.0056	1.0058	1.0061	1.0065	1.0069	1.0073	1.0082	1.0092	1.0101	1.0110	1.0119	1.0128
0.884		1.1474	1.1476	1.1480	1.1485	1.1489	1.1493	1.1504	1.1514	1.1525	1.1535	1.1546	1.1556
89.0		1.0046	1.0048	1.0052	1.0055	1.0059	1.0063	1.0072	1.0082	1.0091	1.0100	1.0109	1.0118
-184.15		1.0051	1.0053	1.0057	1.0061	1.0065	1.0069	1.0078	1.0087	1.0097	1.0106	1.0115	1.0124
0.894		1.1469	1.1471	1.1475	1.1480	1.1484	1.1488	1.1499	1.1510	1.1520	1.1531	1.1541	1.1551
89.1		1.0042	1.0044	1.0047	1.0051	1.0055	1.0059	1.0068	1.0077	1.0087	1.0096	1.0105	1.0114
-184.05		1.0047	1.0049	1.0053	1.0057	1.0060	1.0064	1.0074	1.0083	1.0092	1.0101	1.0111	1.0120
0.904		1.1464	1.1466	1.1470	1.1475	1.1479	1.1483	1.1494	1.1505	1.1515	1.1526	1.1536	1.1547
89.2		1.0037	1.0039	1.0043	1.0047	1.0051	1.0054	1.0064	1.0073	1.0083	1.0092	1.0101	1.0110
-183.95		1.0043	1.0045	1.0048	1.0052	1.0056	1.0060	1.0069	1.0079	1.0088	1.0097	1.0106	1.0116
0.913		1.1459	1.1461	1.1465	1.1470	1.1474	1.1478	1.1489	1.1500	1.1511	1.1521	1.1531	1.1542
89.3		1.0033	1.0035	1.0039	1.0042	1.0046	1.0050	1.0060	1.0069	1.0078	1.0088	1.0097	1.0106
-183.85		1.0038	1.0040	1.0044	1.0048	1.0052	1.0056	1.0065	1.0074	1.0084	1.0093	1.0102	1.0111
0.923		1.1454	1.1456	1.1460	1.1465	1.1469	1.1473	1.1484	1.1495	1.1506	1.1516	1.1527	1.1537
89.4		1.0029	1.0030	1.0034	1.0038	1.0042	1.0046	1.0055	1.0065	1.0074	1.0083	1.0093	1.0102
-183.75		1.0034	1.0036	1.0040	1.0044	1.0047	1.0051	1.0061	1.0070	1.0080	1.0089	1.0098	1.0107
0.933		1.1449	1.1451	1.1455	1.1460	1.1464	1.1469	1.1479	1.1490	1.1501	1.1511	1.1522	1.1532
89.5		1.0024	1.0026	1.0030	1.0034	1.0038	1.0041	1.0051	1.0060	1.0070	1.0079	1.0088	1.0097
-183.65		1.0030	1.0032	1.0035	1.0039	1.0043	1.0047	1.0056	1.0066	1.0075	1.0085	1.0094	1.0103
0.943		1.1444	1.1446	1.1451	1.1455	1.1459	1.1464	1.1474	1.1485	1.1496	1.1507	1.1517	1.1528
89.6		1.0020	1.0022	1.0026	1.0029	1.0033	1.0037	1.0047	1.0056	1.0066	1.0075	1.0084	1.0093
-183.55		1.0025	1.0027	1.0031	1.0035	1.0039	1.0043	1.0052	1.0062	1.0071	1.0080	1.0090	1.0099
0.953		1.1439	1.1441	1.1446	1.1450	1.1454	1.1459	1.1470	1.1480	1.1491	1.1502	1.1512	1.1523
89.7		1.0015	1.0017	1.0021	1.0025	1.0029	1.0033	1.0042	1.0052	1.0061	1.0071	1.0080	1.0089
-183.45		1.0021	1.0023	1.0027	1.0031	1.0034	1.0038	1.0048	1.0057	1.0067	1.0076	1.0085	1.0095
0.963		1.1434	1.1436	1.1441	1.1445	1.1449	1.1454	1.1465	1.1476	1.1486	1.1497	1.1507	1.1518
89.8		1.0011	1.0013	1.0017	1.0021	1.0025	1.0029	1.0038	1.0048	1.0057	1.0066	1.0076	1.0085
-183.35		1.0017	1.0019	1.0022	1.0026	1.0030	1.0034	1.0044	1.0053	1.0063	1.0072	1.0081	1.0090
0.974		1.1429	1.1431	1.1436	1.1440	1.1444	1.1449	1.1460	1.1471	1.1481	1.1492	1.1503	1.1513
89.9		1.0007	1.0009	1.0013	1.0016	1.0020	1.0024	1.0034	1.0043	1.0053	1.0062	1.0071	1.0081
-183.25		1.0012	1.0014	1.0018	1.0022	1.0026	1.0030	1.0039	1.0049	1.0058	1.0068	1.0077	1.0086
0.984		1.1424	1.1426	1.1431	1.1435	1.1440	1.1444	1.1455	1.1466	1.1477	1.1487	1.1498	1.1508

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/M3

BAR	0.680	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
90.0		1.0002	1.0004	1.0008	1.0012	1.0016	1.0020	1.0029	1.0039	1.0048	1.0058	1.0067	1.0076
-183.15		1.0008	1.0010	1.0014	1.0018	1.0021	1.0025	1.0035	1.0045	1.0054	1.0063	1.0073	1.0082
0.994		1.1419	1.1421	1.1426	1.1430	1.1435	1.1439	1.1450	1.1461	1.1472	1.1482	1.1493	1.1504
90.1			1.0000	1.0004	1.0008	1.0012	1.0016	1.0025	1.0035	1.0044	1.0054	1.0063	1.0072
-183.05			1.0005	1.0009	1.0013	1.0017	1.0021	1.0031	1.0040	1.0050	1.0059	1.0068	1.0078
1.005			1.1416	1.1421	1.1425	1.1430	1.1434	1.1445	1.1456	1.1467	1.1478	1.1488	1.1499
90.2			0.9996	1.0000	1.0003	1.0007	1.0011	1.0021	1.0030	1.0040	1.0049	1.0059	1.0068
-182.95			1.0001	1.0005	1.0009	1.0013	1.0017	1.0026	1.0036	1.0045	1.0055	1.0064	1.0074
1.015			1.1411	1.1416	1.1420	1.1425	1.1429	1.1440	1.1451	1.1462	1.1473	1.1483	1.1494
90.3			0.9991	0.9995	0.9999	1.0003	1.0007	1.0017	1.0026	1.0036	1.0045	1.0055	1.0064
-182.85			0.9997	1.0001	1.0005	1.0008	1.0012	1.0022	1.0032	1.0041	1.0051	1.0060	1.0069
1.026			1.1406	1.1411	1.1415	1.1420	1.1424	1.1435	1.1446	1.1457	1.1468	1.1479	1.1489
90.4			0.9987	0.9991	0.9995	0.9999	1.0003	1.0012	1.0022	1.0031	1.0041	1.0050	1.0060
-182.75			0.9992	0.9996	1.0000	1.0004	1.0008	1.0018	1.0027	1.0037	1.0046	1.0056	1.0065
1.037			1.1401	1.1406	1.1410	1.1415	1.1419	1.1430	1.1441	1.1452	1.1463	1.1474	1.1484
90.5			0.9982	0.9986	0.9990	0.9994	0.9998	1.0008	1.0018	1.0027	1.0037	1.0046	1.0055
-182.65			0.9988	0.9992	0.9996	1.0000	1.0004	1.0013	1.0023	1.0033	1.0042	1.0052	1.0061
1.048			1.1396	1.1401	1.1405	1.1410	1.1414	1.1425	1.1436	1.1447	1.1458	1.1469	1.1480
90.6			0.9978	0.9982	0.9986	0.9990	0.9994	1.0004	1.0013	1.0023	1.0032	1.0042	1.0051
-182.55			0.9984	0.9988	0.9991	0.9995	0.9999	1.0009	1.0019	1.0028	1.0038	1.0047	1.0057
1.059			1.1391	1.1396	1.1400	1.1405	1.1409	1.1420	1.1431	1.1442	1.1453	1.1464	1.1475
90.7			0.9974	0.9978	0.9982	0.9986	0.9990	0.9999	1.0009	1.0019	1.0028	1.0038	1.0047
-182.45			0.9979	0.9983	0.9987	0.9991	0.9995	1.0005	1.0014	1.0024	1.0034	1.0043	1.0052
1.070			1.1386	1.1391	1.1395	1.1400	1.1404	1.1415	1.1427	1.1438	1.1448	1.1459	1.1470
90.8			0.9969	0.9973	0.9977	0.9981	0.9985	0.9995	1.0005	1.0014	1.0024	1.0033	1.0043
-182.35			0.9975	0.9979	0.9983	0.9987	0.9991	1.0000	1.0010	1.0020	1.0029	1.0039	1.0048
1.081			1.1381	1.1386	1.1390	1.1395	1.1399	1.1411	1.1422	1.1433	1.1444	1.1454	1.1465
90.9			0.9965	0.9969	0.9973	0.9977	0.9981	0.9991	1.0000	1.0010	1.0020	1.0029	1.0039
-182.25			0.9970	0.9974	0.9978	0.9982	0.9986	0.9996	1.0006	1.0015	1.0025	1.0035	1.0044
1.092			1.1376	1.1381	1.1385	1.1390	1.1394	1.1406	1.1417	1.1428	1.1439	1.1450	1.1460
91.0			0.9961	0.9965	0.9969	0.9972	0.9976	0.9986	0.9996	1.0006	1.0015	1.0025	1.0034
-182.15			0.9966	0.9970	0.9974	0.9978	0.9982	0.9992	1.0002	1.0011	1.0021	1.0030	1.0040
1.103			1.1371	1.1376	1.1380	1.1385	1.1389	1.1401	1.1412	1.1423	1.1434	1.1445	1.1456
91.1			0.9956	0.9960	0.9964	0.9968	0.9972	0.9982	0.9992	1.0001	1.0011	1.0021	1.0030
-182.05			0.9962	0.9966	0.9970	0.9974	0.9978	0.9987	0.9997	1.0007	1.0017	1.0026	1.0036
1.115			1.1366	1.1371	1.1375	1.1380	1.1384	1.1396	1.1407	1.1418	1.1429	1.1440	1.1451
91.2			0.9952	0.9956	0.9960	0.9964	0.9968	0.9978	0.9987	0.9997	1.0007	1.0016	1.0026
-181.95			0.9957	0.9961	0.9965	0.9969	0.9973	0.9983	0.9993	1.0003	1.0012	1.0022	1.0031
1.126			1.1361	1.1366	1.1370	1.1375	1.1379	1.1391	1.1402	1.1413	1.1424	1.1435	1.1446
91.3			0.9947	0.9951	0.9955	0.9959	0.9963	0.9973	0.9983	0.9993	1.0003	1.0012	1.0022
-181.85			0.9953	0.9957	0.9961	0.9965	0.9969	0.9979	0.9988	0.9998	1.0008	1.0018	1.0027
1.138			1.1356	1.1361	1.1365	1.1370	1.1374	1.1386	1.1397	1.1408	1.1419	1.1430	1.1441
91.4			0.9943	0.9947	0.9951	0.9955	0.9959	0.9969	0.9979	0.9989	0.9998	1.0008	1.0017
-181.75			0.9948	0.9952	0.9956	0.9960	0.9964	0.9974	0.9984	0.9994	1.0004	1.0013	1.0023
1.149			1.1351	1.1356	1.1360	1.1365	1.1369	1.1381	1.1392	1.1403	1.1414	1.1425	1.1436
91.5			0.9939	0.9943	0.9947	0.9951	0.9955	0.9965	0.9974	0.9984	0.9994	1.0004	1.0013
-181.65			0.9944	0.9948	0.9952	0.9956	0.9960	0.9970	0.9980	0.9990	0.9999	1.0009	1.0019
1.161			1.1346	1.1351	1.1355	1.1360	1.1365	1.1376	1.1387	1.1398	1.1409	1.1420	1.1431
91.6			0.9934	0.9938	0.9942	0.9946	0.9950	0.9960	0.9970	0.9980	0.9990	0.9999	1.0009
-181.55			0.9940	0.9944	0.9948	0.9952	0.9956	0.9966	0.9976	0.9985	0.9995	1.0005	1.0014
1.173			1.1341	1.1346	1.1350	1.1355	1.1360	1.1371	1.1382	1.1393	1.1405	1.1416	1.1427
91.7			0.9930	0.9934	0.9938	0.9942	0.9946	0.9956	0.9966	0.9976	0.9985	0.9995	1.0005
-181.45			0.9935	0.9939	0.9943	0.9947	0.9951	0.9961	0.9971	0.9981	0.9991	1.0001	1.0010
1.185			1.1336	1.1341	1.1345	1.1350	1.1355	1.1366	1.1377	1.1389	1.1400	1.1411	1.1422
91.8			0.9925	0.9929	0.9933	0.9937	0.9942	0.9952	0.9961	0.9971	0.9981	0.9991	1.0000
-181.35			0.9931	0.9935	0.9939	0.9943	0.9947	0.9957	0.9967	0.9977	0.9987	0.9996	1.0006
1.197			1.1331	1.1336	1.1340	1.1345	1.1350	1.1361	1.1372	1.1384	1.1395	1.1406	1.1417
91.9			0.9921	0.9925	0.9929	0.9933	0.9937	0.9947	0.9957	0.9967	0.9977	0.9987	0.9996
-181.25			0.9926	0.9930	0.9934	0.9939	0.9943	0.9953	0.9963	0.9973	0.9982	0.9992	1.0002
1.209			1.1326	1.1331	1.1335	1.1340	1.1345	1.1356	1.1367	1.1379	1.1390	1.1401	1.1412

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES
1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/M3

BAR KF/CM2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
92.0			0.991E	0.9921	0.9925	0.9929	0.9933	0.9943	0.9953	0.9963	0.9973	0.9982	0.9992
-181.15			0.9922	0.9926	0.9930	0.9934	0.9938	0.9948	0.9958	0.9968	0.9978	0.9988	0.9997
1.221			1.1321	1.1326	1.1330	1.1335	1.1340	1.1351	1.13E2	1.1374	1.1385	1.139E	1.1407
92.1			0.9912	0.9916	0.9920	0.9924	0.9928	0.9938	0.9948	0.9958	0.9968	0.9978	0.9988
-181.05			0.9917	0.9922	0.9926	0.9930	0.9934	0.9944	0.9954	0.9964	0.9974	0.9984	0.9993
1.233			1.131E	1.1321	1.1325	1.1330	1.1335	1.134E	1.1357	1.1369	1.1380	1.1391	1.1402
92.2			0.9908	0.9912	0.9916	0.9920	0.9924	0.9934	0.9944	0.9954	0.9964	0.9974	0.9984
-180.95			0.9913	0.9917	0.9921	0.9925	0.9929	0.994C	0.9950	0.9960	0.9969	0.9979	0.9989
1.246			1.1311	1.1316	1.1320	1.1325	1.1330	1.1341	1.1353	1.1364	1.1375	1.138E	1.1397
92.3			0.9903	0.9907	0.9911	0.9916	0.9920	0.9930	0.9940	0.9950	0.9960	0.9970	0.9979
-180.85			0.9909	0.9913	0.9917	0.9921	0.9925	0.9935	0.9945	0.9955	0.9965	0.9975	0.9985
1.258			1.130E	1.1310	1.1315	1.1320	1.1325	1.133E	1.1348	1.1359	1.1370	1.1381	1.1393
92.4			0.9899	0.9903	0.9907	0.9911	0.9915	0.9925	0.9935	0.9945	0.9955	0.9965	0.9975
-180.75			0.9904	0.9908	0.9912	0.9917	0.9921	0.9931	0.9941	0.9951	0.9961	0.9971	0.9980
1.271			1.1301	1.1305	1.1310	1.1315	1.1320	1.1331	1.1343	1.1354	1.1365	1.1377	1.1388
92.5			0.9894	0.9898	0.9903	0.9907	0.9911	0.9921	0.9931	0.9941	0.9951	0.9961	0.9971
-180.65			0.9900	0.9904	0.9908	0.9912	0.9916	0.992E	0.9937	0.9947	0.9957	0.9966	0.9976
1.283			1.1296	1.1300	1.1305	1.1310	1.1314	1.132E	1.1338	1.1349	1.1360	1.1372	1.1383
92.6			0.9890	0.9894	0.9898	0.9902	0.9906	0.9917	0.9927	0.9937	0.9947	0.9957	0.996E
-180.55			0.9895	0.9899	0.9904	0.9908	0.9912	0.9922	0.9932	0.9942	0.9952	0.9962	0.9972
1.296			1.1291	1.1295	1.1300	1.1305	1.1309	1.1321	1.1333	1.1344	1.1356	1.1367	1.1378
92.7			0.9885	0.9890	0.9894	0.9898	0.9902	0.9912	0.9922	0.9932	0.9942	0.9952	0.9962
-180.45			0.9891	0.9895	0.9899	0.9903	0.9907	0.9918	0.9928	0.9938	0.9948	0.9958	0.9968
1.309			1.1286	1.1290	1.1295	1.1300	1.1304	1.1316	1.1328	1.1339	1.1351	1.1362	1.1373
92.8			0.9881	0.9885	0.9889	0.9893	0.9898	0.9908	0.9918	0.9928	0.9938	0.9948	0.9958
-180.35			0.9886	0.9891	0.9895	0.9899	0.9903	0.9913	0.9923	0.9934	0.9944	0.9954	0.9963
1.322			1.1280	1.1285	1.1290	1.1295	1.1299	1.1311	1.1323	1.1334	1.1346	1.1357	1.1368
92.9			0.9877	0.9881	0.9885	0.9889	0.9893	0.9904	0.9914	0.9924	0.9934	0.9944	0.9954
-180.25			0.9882	0.9886	0.9890	0.9894	0.9899	0.9909	0.9919	0.9929	0.9939	0.9949	0.9959
1.335			1.1275	1.1280	1.1285	1.1290	1.1294	1.130E	1.1318	1.1329	1.1341	1.1352	1.1363
93.0			0.9872	0.9876	0.9881	0.9885	0.9889	0.9899	0.9909	0.9919	0.9930	0.9940	0.9949
-180.15			0.9878	0.9882	0.9886	0.9890	0.9894	0.9905	0.9915	0.9925	0.9935	0.9945	0.9955
1.348			1.1270	1.1275	1.1280	1.1285	1.1289	1.1301	1.1313	1.1324	1.1336	1.1347	1.1359
93.1			0.9868	0.9872	0.987E	0.9880	0.9884	0.9895	0.9905	0.9915	0.9925	0.9935	0.9945
-180.05			0.9873	0.9877	0.9881	0.9886	0.9890	0.9900	0.9910	0.9921	0.9931	0.9941	0.9951
1.361			1.1265	1.1270	1.1275	1.1280	1.1284	1.129E	1.1308	1.1319	1.1331	1.1342	1.1354
93.2			0.9863	0.9867	0.9872	0.9876	0.9880	0.9890	0.9901	0.9911	0.9921	0.9931	0.9941
-179.95			0.9869	0.9873	0.9877	0.9881	0.9885	0.989E	0.9906	0.9916	0.9926	0.9936	0.9946
1.375			1.1260	1.12E5	1.1270	1.1275	1.1279	1.1291	1.1303	1.1314	1.1326	1.1337	1.1349
93.3			0.9859	0.98E3	0.9867	0.9871	0.9876	0.988E	0.9896	0.9906	0.9917	0.9927	0.9937
-179.85			0.9864	0.9868	0.9873	0.9877	0.9881	0.9891	0.9902	0.9912	0.9922	0.9932	0.9942
1.388			1.1255	1.1260	1.1265	1.1269	1.1274	1.128E	1.1298	1.1310	1.1321	1.1333	1.1344
93.4			0.9854	0.9859	0.9863	0.9867	0.9871	0.9882	0.9892	0.9902	0.9912	0.9922	0.9932
-179.75			0.9860	0.9864	0.9868	0.9872	0.9877	0.9887	0.9897	0.9908	0.9918	0.9928	0.9938
1.402			1.1250	1.1255	1.1260	1.1264	1.1269	1.1281	1.1293	1.1305	1.1316	1.1328	1.1339
93.5			0.9850	0.9854	0.9858	0.9863	0.9867	0.9877	0.9888	0.9898	0.9908	0.9918	0.9928
-179.65			0.9855	0.9859	0.9864	0.9868	0.9872	0.9883	0.9893	0.9903	0.9913	0.9923	0.9933
1.415			1.1245	1.1250	1.1255	1.1259	1.1264	1.127E	1.1288	1.1300	1.1311	1.1323	1.1334
93.6			0.9845	0.9850	0.9854	0.9858	0.9862	0.9873	0.9883	0.9893	0.9904	0.9914	0.9924
-179.55			0.9851	0.9855	0.9859	0.9863	0.9868	0.9878	0.9889	0.9899	0.9909	0.9919	0.9929
1.429			1.1240	1.1245	1.1249	1.1254	1.1259	1.1271	1.1283	1.1295	1.1306	1.1318	1.1329
93.7			0.9841	0.9845	0.9849	0.9854	0.9858	0.9868	0.9879	0.9889	0.9899	0.9909	0.9919
-179.45			0.9846	0.9851	0.9855	0.9859	0.9863	0.9874	0.9884	0.9894	0.9905	0.9915	0.9925
1.443			1.1235	1.1240	1.1244	1.1249	1.1254	1.126E	1.1278	1.1290	1.1301	1.1313	1.1324
93.8			0.9836	0.9841	0.9845	0.9849	0.9853	0.9864	0.9874	0.9885	0.9895	0.9905	0.9915
-179.35			0.9842	0.9846	0.9850	0.9855	0.9859	0.9869	0.9880	0.9890	0.9900	0.9911	0.9921
1.457			1.1230	1.1234	1.1239	1.1244	1.1249	1.1261	1.1273	1.1285	1.1296	1.1308	1.1319
93.9			0.9832	0.9836	0.9841	0.9845	0.9849	0.9860	0.9870	0.9880	0.9891	0.9901	0.9911
-179.25			0.9837	0.9842	0.9846	0.9850	0.9854	0.9865	0.9875	0.9886	0.9896	0.990E	0.9916
1.471			1.1224	1.1229	1.1234	1.1239	1.1244	1.125E	1.1268	1.1280	1.1291	1.1303	1.1315

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KF/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
94.0			0.9827	0.9832	0.9836	0.9840	0.9845	0.9855	0.9866	0.9876	0.9886	0.9897	0.9907
-179.15			0.9833	0.9837	0.9841	0.9846	0.9850	0.9861	0.9871	0.9881	0.9892	0.9902	0.9912
1.485			1.1219	1.1224	1.1229	1.1234	1.1239	1.1251	1.1263	1.1275	1.1286	1.1298	1.1310
94.1			0.9823	0.9827	0.9832	0.9836	0.9840	0.9851	0.9861	0.9872	0.9882	0.9892	0.9902
-179.05			0.9828	0.9833	0.9837	0.9841	0.9846	0.9856	0.9867	0.9877	0.9887	0.9898	0.9908
1.500			1.1214	1.1219	1.1224	1.1229	1.1234	1.1246	1.1258	1.1270	1.1282	1.1293	1.1305
94.2			0.9818	0.9823	0.9827	0.9831	0.9836	0.9846	0.9857	0.9867	0.9878	0.9888	0.9898
-178.95			0.9824	0.9828	0.9832	0.9837	0.9841	0.9852	0.9862	0.9873	0.9883	0.9893	0.9903
1.514			1.1209	1.1214	1.1219	1.1224	1.1229	1.1241	1.1253	1.1265	1.1277	1.1288	1.1300
94.3			0.9814	0.9818	0.9823	0.9827	0.9831	0.9842	0.9852	0.9863	0.9873	0.9884	0.9894
-178.85			0.9819	0.9824	0.9828	0.9832	0.9837	0.9847	0.9858	0.9868	0.9879	0.9889	0.9899
1.528			1.1204	1.1209	1.1214	1.1219	1.1224	1.1236	1.1248	1.1260	1.1272	1.1283	1.1295
94.4			0.9810	0.9814	0.9818	0.9822	0.9827	0.9837	0.9848	0.9859	0.9869	0.9879	0.9889
-178.75			0.9815	0.9819	0.9824	0.9828	0.9832	0.9843	0.9853	0.9864	0.9874	0.9885	0.9895
1.543			1.1199	1.1204	1.1209	1.1214	1.1219	1.1231	1.1243	1.1255	1.1267	1.1278	1.1290
94.5			0.9805	0.9809	0.9814	0.9818	0.9822	0.9833	0.9844	0.9854	0.9865	0.9875	0.9885
-178.65			0.9810	0.9815	0.9819	0.9823	0.9828	0.9838	0.9849	0.9860	0.9870	0.9880	0.9891
1.558			1.1194	1.1199	1.1204	1.1209	1.1213	1.1226	1.1238	1.1250	1.1262	1.1273	1.1285
94.6			0.9801	0.9805	0.9809	0.9814	0.9818	0.9829	0.9839	0.9850	0.9860	0.9871	0.9881
-178.55			0.9806	0.9810	0.9815	0.9819	0.9823	0.9834	0.9845	0.9855	0.9866	0.9876	0.9886
1.572			1.1189	1.1194	1.1199	1.1203	1.1208	1.1221	1.1233	1.1245	1.1257	1.1269	1.1280
94.7			0.9796	0.9800	0.9805	0.9809	0.9813	0.9824	0.9835	0.9845	0.9856	0.9866	0.9877
-178.45			0.9801	0.9806	0.9810	0.9814	0.9819	0.9830	0.9840	0.9851	0.9861	0.9872	0.9882
1.587			1.1183	1.1188	1.1193	1.1198	1.1203	1.1216	1.1228	1.1240	1.1252	1.1264	1.1275
94.8			0.9792	0.9796	0.9800	0.9805	0.9809	0.9820	0.9830	0.9841	0.9851	0.9862	0.9872
-178.35			0.9797	0.9801	0.9806	0.9810	0.9814	0.9825	0.9836	0.9846	0.9857	0.9867	0.9878
1.602			1.1178	1.1183	1.1188	1.1193	1.1198	1.1210	1.1223	1.1235	1.1247	1.1259	1.1270
94.9			0.9787	0.9791	0.9796	0.9800	0.9804	0.9815	0.9826	0.9837	0.9847	0.9858	0.9868
-178.25			0.9792	0.9797	0.9801	0.9806	0.9810	0.9821	0.9831	0.9842	0.9853	0.9863	0.9873
1.617			1.1173	1.1178	1.1183	1.1188	1.1193	1.1205	1.1218	1.1230	1.1242	1.1254	1.1265
95.0			0.9782	0.9787	0.9791	0.9796	0.9800	0.9811	0.9822	0.9832	0.9843	0.9853	0.9864
-178.15			0.9788	0.9792	0.9797	0.9801	0.9805	0.9816	0.9827	0.9838	0.9848	0.9859	0.9869
1.633			1.1168	1.1173	1.1178	1.1183	1.1188	1.1200	1.1213	1.1225	1.1237	1.1249	1.1261
95.1			0.9778	0.9782	0.9787	0.9791	0.9796	0.9806	0.9817	0.9828	0.9838	0.9848	0.9859
-178.05			0.9783	0.9788	0.9792	0.9797	0.9801	0.9812	0.9823	0.9833	0.9844	0.9854	0.9865
1.648			1.1163	1.1168	1.1173	1.1178	1.1183	1.1195	1.1208	1.1220	1.1232	1.1244	1.1256
95.2			0.9773	0.9778	0.9782	0.9787	0.9791	0.9802	0.9813	0.9823	0.9834	0.9845	0.9855
-177.95			0.9779	0.9783	0.9788	0.9792	0.9796	0.9807	0.9818	0.9829	0.9839	0.9850	0.9860
1.663			1.1158	1.1163	1.1168	1.1173	1.1178	1.1190	1.1203	1.1215	1.1227	1.1239	1.1251
95.3			0.9769	0.9773	0.9778	0.9782	0.9787	0.9798	0.9808	0.9819	0.9830	0.9840	0.9851
-177.85			0.9774	0.9779	0.9783	0.9788	0.9792	0.9803	0.9814	0.9824	0.9835	0.9846	0.9856
1.679			1.1152	1.1158	1.1163	1.1168	1.1173	1.1185	1.1197	1.1210	1.1222	1.1234	1.1246
95.4			0.9764	0.9769	0.9773	0.9778	0.9782	0.9793	0.9804	0.9815	0.9825	0.9836	0.9846
-177.75			0.9770	0.9774	0.9779	0.9783	0.9787	0.9798	0.9809	0.9820	0.9831	0.9841	0.9852
1.695			1.1147	1.1152	1.1157	1.1163	1.1168	1.1180	1.1192	1.1205	1.1217	1.1229	1.1241
95.5			0.9760	0.9764	0.9769	0.9773	0.9778	0.9789	0.9799	0.9810	0.9821	0.9831	0.9842
-177.65			0.9765	0.9770	0.9774	0.9779	0.9783	0.9794	0.9805	0.9816	0.9826	0.9837	0.9847
1.710			1.1142	1.1147	1.1152	1.1157	1.1162	1.1175	1.1187	1.1200	1.1212	1.1224	1.1236
95.6			0.9755	0.9760	0.9764	0.9769	0.9773	0.9784	0.9795	0.9806	0.9817	0.9827	0.9838
-177.55			0.9761	0.9765	0.9770	0.9774	0.9778	0.9789	0.9800	0.9811	0.9822	0.9832	0.9843
1.726			1.1137	1.1142	1.1147	1.1152	1.1157	1.1170	1.1182	1.1195	1.1207	1.1219	1.1231
95.7			0.9751	0.9755	0.9760	0.9764	0.9769	0.9780	0.9791	0.9801	0.9812	0.9823	0.9833
-177.45			0.9756	0.9761	0.9765	0.9770	0.9774	0.9785	0.9796	0.9807	0.9817	0.9828	0.9839
1.742			1.1132	1.1137	1.1142	1.1147	1.1152	1.1165	1.1177	1.1190	1.1202	1.1214	1.1226
95.8			0.9746	0.9751	0.9755	0.9760	0.9764	0.9775	0.9786	0.9797	0.9808	0.9818	0.9829
-177.35			0.9752	0.9756	0.9761	0.9765	0.9770	0.9781	0.9792	0.9802	0.9813	0.9824	0.9834
1.758			1.1127	1.1132	1.1137	1.1142	1.1147	1.1160	1.1172	1.1185	1.1197	1.1209	1.1221
95.9			0.9742	0.9746	0.9751	0.9755	0.9760	0.9771	0.9782	0.9793	0.9803	0.9814	0.9825
-177.25			0.9747	0.9752	0.9756	0.9761	0.9765	0.9776	0.9787	0.9798	0.9809	0.9819	0.9830
1.775			1.1121	1.1127	1.1132	1.1137	1.1142	1.1155	1.1167	1.1179	1.1192	1.1204	1.1216

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.000	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.788
96.0			0.9737	0.9742	0.9746	0.9751	0.9755	0.9766	0.9777	0.9788	0.9799	0.9810	0.9820
-177.15			0.9743	0.9747	0.9752	0.9756	0.9760	0.9772	0.9783	0.9794	0.9804	0.9815	0.9826
1.791			1.1116	1.1121	1.1127	1.1132	1.1137	1.1149	1.1162	1.1174	1.1187	1.1195	1.1211
96.1			0.9733	0.9737	0.9742	0.9746	0.9751	0.9762	0.9773	0.9784	0.9795	0.9805	0.9816
-177.05			0.9738	0.9742	0.9747	0.9752	0.9756	0.9767	0.9778	0.9789	0.9800	0.9811	0.9821
1.807			1.1111	1.1116	1.1121	1.1127	1.1132	1.1144	1.1157	1.1169	1.1182	1.1194	1.1206
96.2			0.9728	0.9733	0.9737	0.9742	0.9746	0.9757	0.9768	0.9779	0.9790	0.9801	0.9812
-176.95			0.9733	0.9738	0.9742	0.9747	0.9751	0.9763	0.9774	0.9785	0.9796	0.9806	0.9817
1.824			1.1106	1.1111	1.1116	1.1121	1.1126	1.1139	1.1152	1.1164	1.1177	1.1189	1.1201
96.3			0.9724	0.9728	0.9733	0.9737	0.9742	0.9753	0.9764	0.9775	0.9786	0.9797	0.9807
-176.85			0.9729	0.9733	0.9738	0.9742	0.9747	0.9758	0.9769	0.9780	0.9791	0.9802	0.9813
1.841			1.1101	1.1106	1.1111	1.1116	1.1121	1.1134	1.1147	1.1159	1.1172	1.1184	1.1196
96.4			0.9719	0.9724	0.9728	0.9733	0.9737	0.9748	0.9759	0.9770	0.9781	0.9792	0.9803
-176.75			0.9724	0.9729	0.9733	0.9738	0.9742	0.9754	0.9765	0.9776	0.9787	0.9798	0.9808
1.857			1.1095	1.1101	1.1106	1.1111	1.1116	1.1129	1.1142	1.1154	1.1167	1.1179	1.1191
96.5			0.9714	0.9719	0.9724	0.9728	0.9733	0.9744	0.9755	0.9766	0.9777	0.9788	0.9799
-176.65			0.9720	0.9724	0.9729	0.9733	0.9738	0.9749	0.9760	0.9771	0.9782	0.9793	0.9804
1.874			1.1090	1.1095	1.1101	1.1106	1.1111	1.1124	1.1137	1.1149	1.1162	1.1174	1.1186
96.6			0.9710	0.9714	0.9719	0.9724	0.9728	0.9739	0.9751	0.9762	0.9773	0.9783	0.9794
-176.55			0.9715	0.9720	0.9724	0.9729	0.9733	0.9745	0.9756	0.9767	0.9778	0.9789	0.9800
1.891			1.1085	1.1090	1.1095	1.1101	1.1106	1.1119	1.1131	1.1144	1.1157	1.1169	1.1181
96.7			0.9705	0.9710	0.9714	0.9719	0.9724	0.9735	0.9746	0.9757	0.9768	0.9779	0.9790
-176.45			0.9711	0.9715	0.9720	0.9724	0.9729	0.9740	0.9751	0.9762	0.9773	0.9784	0.9795
1.908			1.1080	1.1085	1.1090	1.1096	1.1101	1.1114	1.1126	1.1139	1.1152	1.1164	1.1176
96.8			0.9701	0.9705	0.9710	0.9714	0.9719	0.9730	0.9742	0.9753	0.9764	0.9775	0.9785
-176.35			0.9706	0.9711	0.9715	0.9720	0.9724	0.9736	0.9747	0.9758	0.9769	0.9780	0.9791
1.926			1.1075	1.1080	1.1085	1.1090	1.1096	1.1108	1.1121	1.1134	1.1147	1.1159	1.1171
96.9			0.9696	0.9701	0.9705	0.9710	0.9715	0.9726	0.9737	0.9748	0.9759	0.9770	0.9781
-176.25			0.9701	0.9706	0.9711	0.9715	0.9720	0.9731	0.9742	0.9754	0.9765	0.9776	0.9786
1.943			1.1069	1.1075	1.1080	1.1085	1.1090	1.1103	1.1116	1.1129	1.1141	1.1154	1.1166
97.0			0.9692	0.9696	0.9701	0.9705	0.9710	0.9721	0.9733	0.9744	0.9755	0.9766	0.9777
-176.15			0.9697	0.9701	0.9706	0.9711	0.9715	0.9727	0.9738	0.9749	0.9760	0.9771	0.9782
1.961			1.1064	1.1069	1.1075	1.1080	1.1085	1.1098	1.1111	1.1124	1.1136	1.1149	1.1161
97.1			0.9687	0.9692	0.9696	0.9701	0.9705	0.9717	0.9728	0.9739	0.9750	0.9761	0.9772
-176.05			0.9692	0.9697	0.9702	0.9706	0.9711	0.9722	0.9733	0.9745	0.9756	0.9767	0.9778
1.978			1.1059	1.1064	1.1070	1.1075	1.1080	1.1093	1.1106	1.1119	1.1131	1.1144	1.1156
97.2			0.9682	0.9687	0.9692	0.9696	0.9701	0.9712	0.9724	0.9735	0.9746	0.9757	0.9768
-175.95			0.9688	0.9692	0.9697	0.9702	0.9706	0.9718	0.9729	0.9740	0.9751	0.9762	0.9773
1.996			1.1054	1.1059	1.1064	1.1070	1.1075	1.1088	1.1101	1.1114	1.1126	1.1139	1.1151
97.3				0.9682	0.9687	0.9692	0.9696	0.9708	0.9719	0.9730	0.9742	0.9753	0.9764
-175.85				0.9688	0.9692	0.9697	0.9702	0.9713	0.9725	0.9736	0.9747	0.9758	0.9769
2.014				1.1054	1.1059	1.1064	1.1070	1.1083	1.1096	1.1109	1.1121	1.1134	1.1146
97.4				0.9678	0.9683	0.9687	0.9692	0.9703	0.9715	0.9726	0.9737	0.9748	0.9758
-175.75				0.9683	0.9688	0.9692	0.9697	0.9709	0.9720	0.9731	0.9742	0.9754	0.9765
2.032				1.1049	1.1054	1.1059	1.1064	1.1078	1.1091	1.1103	1.1116	1.1129	1.1141
97.5				0.9673	0.9678	0.9683	0.9687	0.9699	0.9710	0.9722	0.9733	0.9744	0.9755
-175.65				0.9679	0.9683	0.9688	0.9693	0.9704	0.9716	0.9727	0.9738	0.9749	0.9760
2.050				1.1043	1.1049	1.1054	1.1059	1.1072	1.1085	1.1098	1.1111	1.1124	1.1136
97.6				0.9669	0.9673	0.9678	0.9683	0.9694	0.9706	0.9717	0.9728	0.9739	0.9750
-175.55				0.9674	0.9679	0.9683	0.9688	0.9700	0.9711	0.9722	0.9734	0.9745	0.9756
2.068				1.1038	1.1043	1.1049	1.1054	1.1067	1.1080	1.1093	1.1106	1.1119	1.1131
97.7				0.9664	0.9669	0.9673	0.9678	0.9690	0.9701	0.9713	0.9724	0.9735	0.9746
-175.45				0.9669	0.9674	0.9679	0.9683	0.9695	0.9707	0.9718	0.9729	0.9740	0.9751
2.086				1.1033	1.1038	1.1044	1.1049	1.1062	1.1075	1.1088	1.1101	1.1114	1.1126
97.8				0.9659	0.9664	0.9669	0.9674	0.9685	0.9697	0.9708	0.9719	0.9731	0.9742
-175.35				0.9665	0.9669	0.9674	0.9679	0.9691	0.9702	0.9713	0.9725	0.9736	0.9747
2.105				1.1028	1.1033	1.1038	1.1044	1.1057	1.1070	1.1083	1.1096	1.1109	1.1121
97.9				0.9655	0.9660	0.9664	0.9669	0.9681	0.9692	0.9704	0.9715	0.9726	0.9737
-175.25				0.9660	0.9665	0.9670	0.9674	0.9686	0.9698	0.9709	0.9720	0.9731	0.9743
2.123				1.1022	1.1028	1.1033	1.1038	1.1052	1.1065	1.1078	1.1091	1.1104	1.1116

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
98.0				0.9650	0.9655	0.9660	0.9664	0.9676	0.9688	0.9699	0.9710	0.9722	0.9733
-175.15				0.9656	0.9660	0.9665	0.9670	0.9681	0.9693	0.9704	0.9716	0.9727	0.9738
2.142				1.1017	1.1022	1.1028	1.1033	1.1047	1.1060	1.1073	1.1086	1.1099	1.1111
98.1				0.9646	0.9650	0.9655	0.9660	0.9672	0.9683	0.9695	0.9706	0.9717	0.9728
-175.05				0.9651	0.9656	0.9660	0.9665	0.9677	0.9688	0.9700	0.9711	0.9723	0.9734
2.161				1.1012	1.1017	1.1023	1.1028	1.1041	1.1055	1.1068	1.1081	1.1094	1.1106
98.2				0.9641	0.9646	0.9651	0.9655	0.9667	0.9679	0.9690	0.9702	0.9713	0.9724
-174.95				0.9646	0.9651	0.9656	0.9661	0.9672	0.9684	0.9695	0.9707	0.9718	0.9729
2.180				1.1007	1.1012	1.1017	1.1023	1.1036	1.1049	1.1063	1.1076	1.1088	1.1101
98.3				0.9636	0.9641	0.9646	0.9651	0.9662	0.9674	0.9686	0.9697	0.9708	0.9720
-174.85				0.9642	0.9646	0.9651	0.9656	0.9668	0.9679	0.9691	0.9702	0.9714	0.9725
2.199				1.1001	1.1007	1.1012	1.1018	1.1031	1.1044	1.1057	1.1071	1.1083	1.1096
98.4				0.9632	0.9637	0.9641	0.9646	0.9658	0.9670	0.9681	0.9693	0.9704	0.9715
-174.75				0.9637	0.9642	0.9647	0.9651	0.9663	0.9675	0.9686	0.9698	0.9709	0.9721
2.218				1.0996	1.1001	1.1007	1.1012	1.1026	1.1039	1.1052	1.1065	1.1078	1.1091
98.5				0.9627	0.9632	0.9637	0.9642	0.9653	0.9665	0.9677	0.9688	0.9700	0.9711
-174.65				0.9632	0.9637	0.9642	0.9647	0.9659	0.9670	0.9682	0.9693	0.9705	0.9716
2.237				1.0991	1.0996	1.1002	1.1007	1.1021	1.1034	1.1047	1.1060	1.1073	1.1086
98.6				0.9623	0.9627	0.9632	0.9637	0.9649	0.9661	0.9672	0.9684	0.9695	0.9706
-174.55				0.9628	0.9633	0.9637	0.9642	0.9654	0.9666	0.9677	0.9689	0.9700	0.9712
2.257				1.0985	1.0991	1.0996	1.1002	1.1015	1.1029	1.1042	1.1055	1.1068	1.1081
98.7				0.9618	0.9623	0.9628	0.9632	0.9644	0.9656	0.9668	0.9679	0.9691	0.9702
-174.45				0.9623	0.9628	0.9633	0.9638	0.9650	0.9661	0.9673	0.9685	0.9696	0.9707
2.276				1.0980	1.0986	1.0991	1.0997	1.1010	1.1024	1.1037	1.1050	1.1063	1.1076
98.8				0.9613	0.9618	0.9623	0.9628	0.9640	0.9652	0.9663	0.9675	0.9686	0.9698
-174.35				0.9619	0.9623	0.9628	0.9633	0.9645	0.9657	0.9668	0.9680	0.9692	0.9703
2.296				1.0975	1.0980	1.0986	1.0991	1.1005	1.1018	1.1032	1.1045	1.1058	1.1071
98.9				0.9609	0.9614	0.9618	0.9623	0.9635	0.9647	0.9659	0.9670	0.9682	0.9693
-174.25				0.9614	0.9619	0.9624	0.9628	0.9640	0.9652	0.9664	0.9676	0.9687	0.9698
2.316				1.0970	1.0975	1.0981	1.0986	1.1000	1.1013	1.1027	1.1040	1.1053	1.1066
99.0				0.9604	0.9609	0.9614	0.9619	0.9631	0.9642	0.9654	0.9666	0.9677	0.9689
-174.15				0.9609	0.9614	0.9619	0.9624	0.9636	0.9648	0.9659	0.9671	0.9683	0.9694
2.336				1.0964	1.0970	1.0975	1.0981	1.0995	1.1008	1.1021	1.1035	1.1048	1.1061
99.1				0.9599	0.9604	0.9609	0.9614	0.9626	0.9638	0.9650	0.9661	0.9673	0.9684
-174.05				0.9605	0.9610	0.9614	0.9619	0.9631	0.9643	0.9655	0.9667	0.9678	0.9690
2.356				1.0959	1.0964	1.0970	1.0976	1.0989	1.1003	1.1016	1.1030	1.1043	1.1056
99.2				0.9595	0.9600	0.9604	0.9609	0.9621	0.9633	0.9645	0.9657	0.9668	0.9680
-173.95				0.9600	0.9605	0.9610	0.9615	0.9627	0.9639	0.9650	0.9662	0.9674	0.9685
2.376				1.0954	1.0959	1.0965	1.0970	1.0984	1.0998	1.1011	1.1025	1.1038	1.1051
99.3				0.9590	0.9595	0.9600	0.9605	0.9617	0.9629	0.9641	0.9652	0.9664	0.9675
-173.85				0.9595	0.9600	0.9605	0.9610	0.9622	0.9634	0.9646	0.9658	0.9669	0.9681
2.396				1.0948	1.0954	1.0959	1.0965	1.0979	1.0992	1.1006	1.1019	1.1033	1.1046
99.4				0.9585	0.9590	0.9595	0.9600	0.9612	0.9624	0.9636	0.9648	0.9659	0.9671
-173.75				0.9591	0.9596	0.9600	0.9605	0.9617	0.9629	0.9641	0.9653	0.9665	0.9676
2.417				1.0943	1.0949	1.0954	1.0960	1.0974	1.0987	1.1001	1.1014	1.1028	1.1041
99.5				0.9581	0.9586	0.9591	0.9595	0.9608	0.9620	0.9632	0.9643	0.9655	0.9667
-173.65				0.9586	0.9591	0.9596	0.9601	0.9613	0.9625	0.9637	0.9649	0.9660	0.9672
2.438				1.0938	1.0943	1.0949	1.0954	1.0968	1.0982	1.0996	1.1009	1.1022	1.1036
99.6				0.9576	0.9581	0.9586	0.9591	0.9603	0.9615	0.9627	0.9639	0.9651	0.9662
-173.55				0.9581	0.9586	0.9591	0.9596	0.9608	0.9620	0.9632	0.9644	0.9656	0.9667
2.458				1.0932	1.0938	1.0944	1.0949	1.0963	1.0977	1.0990	1.1004	1.1017	1.1031
99.7				0.9571	0.9576	0.9581	0.9586	0.9598	0.9611	0.9622	0.9634	0.9646	0.9658
-173.45				0.9577	0.9582	0.9587	0.9591	0.9604	0.9616	0.9628	0.9640	0.9651	0.9663
2.479				1.0927	1.0933	1.0938	1.0944	1.0958	1.0972	1.0985	1.0999	1.1012	1.1025
99.8				0.9567	0.9572	0.9577	0.9582	0.9594	0.9606	0.9618	0.9630	0.9642	0.9653
-173.35				0.9572	0.9577	0.9582	0.9587	0.9599	0.9611	0.9623	0.9635	0.9647	0.9658
2.500				1.0922	1.0927	1.0933	1.0939	1.0953	1.0966	1.0980	1.0994	1.1007	1.1020
99.9				0.9562	0.9567	0.9572	0.9577	0.9589	0.9601	0.9613	0.9625	0.9637	0.9649
-173.25				0.9567	0.9572	0.9577	0.9582	0.9594	0.9607	0.9618	0.9631	0.9642	0.9654
2.521				1.0916	1.0922	1.0928	1.0933	1.0947	1.0961	1.0975	1.0989	1.1002	1.1015

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/M**3

BAR KP/CM**2	0.800 0.816	1.008 1.028	2.000 2.039	4.000 4.079	6.000 6.118	8.008 8.158	10.000 10.197	15.000 15.29E	20.000 20.394	25.000 25.493	30.000 38.591	35.000 35.690	40.000 40.789
100.0				0.9557	0.9562	0.9567	0.9572	0.9585	0.9597	0.9609	0.9621	0.9E33	0.9E44
-173.15				0.9563	0.9568	0.9573	0.9578	0.9590	0.9602	0.9614	0.9626	0.9638	0.9650
2.542				1.0911	1.0917	1.0922	1.0928	1.0942	1.0956	1.0970	1.0983	1.0997	1.1010
100.1				0.9553	0.9558	0.9563	0.9568	0.9580	0.9592	0.9604	0.9616	0.9628	0.9640
-173.05				0.9558	0.9563	0.95E8	0.9573	0.9585	0.9597	0.9610	0.9622	0.9E33	0.9E45
2.564				1.0906	1.0911	1.0917	1.0923	1.0937	1.0951	1.0965	1.0978	1.0992	1.1005
100.2				0.9548	0.9553	0.9558	0.9563	0.9575	0.9588	0.9600	0.9612	0.9E24	0.9635
-172.95				0.9553	0.9558	0.9563	0.9568	0.9581	0.9593	0.9605	0.9617	0.9629	0.9641
2.585				1.0900	1.0906	1.0912	1.0917	1.0932	1.094E	1.0959	1.0973	1.0987	1.1000
100.3				0.9543	0.9548	0.9553	0.9558	0.9571	0.9583	0.9595	0.9607	0.9619	0.9631
-172.85				0.9549	0.9554	0.9559	0.95E4	0.9576	0.9588	0.9600	0.9612	0.9624	0.9636
2.607				1.0895	1.0901	1.0906	1.0912	1.0926	1.0940	1.0954	1.0968	1.0981	1.0995
100.4				0.9539	0.9544	0.9549	0.9554	0.9566	0.9578	0.9591	0.9603	0.9E15	0.962E
-172.75				0.9544	0.9549	0.9554	0.9559	0.9571	0.9584	0.9596	0.9608	0.9E20	0.9632
2.629				1.0890	1.0895	1.0901	1.0907	1.0921	1.0935	1.0949	1.0963	1.0976	1.0990
100.5				0.9534	0.9539	0.9544	0.9549	0.9562	0.9574	0.9586	0.9598	0.9610	0.9622
-172.65				0.9539	0.9544	0.9549	0.9554	0.9567	0.9579	0.9591	0.9603	0.9615	0.9627
2.651				1.0884	1.0890	1.0896	1.0901	1.091E	1.0930	1.0944	1.0958	1.0971	1.0985
100.6				0.9529	0.9534	0.9539	0.9544	0.9557	0.95E9	0.9582	0.9594	0.9606	0.9617
-172.55				0.9534	0.9539	0.9545	0.9550	0.9562	0.9574	0.9587	0.9599	0.9611	0.9623
2.673				1.0879	1.0885	1.0890	1.0896	1.091E	1.0925	1.0939	1.0952	1.0966	1.0980
100.7				0.9524	0.9530	0.9535	0.9540	0.9552	0.95E5	0.9577	0.9589	0.9601	0.9613
-172.45				0.9530	0.9535	0.9540	0.9545	0.9557	0.9570	0.9582	0.9594	0.960E	0.9618
2.695				1.0873	1.0879	1.0885	1.0891	1.0905	1.0919	1.0933	1.0947	1.0961	1.0974
100.8				0.9520	0.9525	0.9530	0.9535	0.9548	0.9560	0.9572	0.9585	0.9597	0.9609
-172.35				0.9525	0.9530	0.9535	0.9540	0.9553	0.9565	0.9578	0.9590	0.9602	0.9614
2.717				1.0868	1.0874	1.088D	1.0885	1.0900	1.0914	1.0928	1.0942	1.0956	1.0969
100.9				0.9515	0.9520	0.9525	0.9530	0.9543	0.9555	0.9568	0.9580	0.9592	0.9604
-172.25				0.9520	0.9525	0.9530	0.9536	0.9548	0.9561	0.9573	0.9585	0.9597	0.9609
2.740				1.0863	1.0868	1.0874	1.0880	1.0895	1.0909	1.0923	1.0937	1.0951	1.0964
101.0				0.9510	0.9515	0.9521	0.9526	0.9538	0.9551	0.9563	0.9575	0.9588	0.9600
-172.15				0.9516	0.9521	0.9526	0.9531	0.9544	0.9556	0.9568	0.9581	0.9593	0.9605
2.763				1.0857	1.0863	1.08E9	1.0875	1.0889	1.0903	1.0918	1.0932	1.0945	1.0959
101.1				0.9506	0.9511	0.9516	0.9521	0.9534	0.9546	0.9559	0.9571	0.9583	0.9595
-172.05				0.9511	0.951E	0.9521	0.9526	0.9539	0.9551	0.9564	0.9576	0.9588	0.9600
2.785				1.0852	1.0858	1.0864	1.08E9	1.0884	1.0898	1.0912	1.0926	1.0940	1.0954
101.2				0.9501	0.9506	0.9511	0.9516	0.9529	0.9542	0.9554	0.9566	0.9578	0.9591
-171.95				0.9506	0.9511	0.9516	0.9521	0.9534	0.9547	0.9559	0.9572	0.9584	0.9596
2.808				1.0846	1.0852	1.0858	1.0864	1.0879	1.0893	1.0907	1.0921	1.0935	1.0949
101.3				0.9496	0.9501	0.9506	0.9512	0.9524	0.9537	0.9549	0.9562	0.9574	0.9586
-171.85				0.9501	0.9506	0.9512	0.9517	0.9530	0.9542	0.9555	0.9567	0.9579	0.9591
2.831				1.0841	1.0847	1.0853	1.0859	1.0873	1.0888	1.0902	1.0916	1.0930	1.0944
101.4				0.9491	0.9497	0.9502	0.9507	0.9520	0.9532	0.9545	0.9557	0.9569	0.9582
-171.75				0.9497	0.9502	0.9507	0.9512	0.9525	0.9538	0.9550	0.9562	0.9575	0.9587
2.854				1.0836	1.0842	1.0847	1.0853	1.0868	1.0882	1.0897	1.0911	1.0925	1.0939
101.5				0.9487	0.9492	0.9497	0.9502	0.9515	0.9528	0.9540	0.9553	0.9565	0.9577
-171.65				0.9492	0.9497	0.9502	0.9507	0.9520	0.9533	0.9545	0.9558	0.9570	0.9582
2.878				1.0830	1.0836	1.0842	1.0848	1.0863	1.0877	1.0891	1.0906	1.0920	1.0933
101.6				0.9482	0.9487	0.9492	0.9497	0.9510	0.9523	0.9536	0.9548	0.9560	0.9573
-171.55				0.9487	0.9492	0.9497	0.9503	0.951E	0.9528	0.9541	0.9553	0.9566	0.9578
2.901				1.0825	1.0831	1.0837	1.0843	1.0857	1.0872	1.0886	1.0900	1.0914	1.0928
101.7				0.9477	0.9482	0.9488	0.9493	0.9506	0.9518	0.9531	0.9543	0.955E	0.9568
-171.45				0.9482	0.9488	0.9493	0.9498	0.9511	0.9524	0.9536	0.9549	0.9561	0.9573
2.925				1.0819	1.0825	1.0831	1.0837	1.0852	1.0866	1.0881	1.0895	1.0909	1.0923
101.8				0.9472	0.9478	0.9483	0.9488	0.9501	0.9514	0.9526	0.9539	0.9551	0.9563
-171.35				0.9478	0.9483	0.9488	0.9493	0.950E	0.9519	0.9532	0.9544	0.9556	0.9569
2.949				1.0814	1.0820	1.0826	1.0832	1.0847	1.0861	1.0876	1.0890	1.0904	1.0918
101.9				0.9468	0.9473	0.9478	0.9483	0.949E	0.9509	0.9522	0.9534	0.9547	0.9559
-171.25				0.9473	0.9478	0.9483	0.9489	0.9501	0.9514	0.9527	0.9540	0.9552	0.9564
2.972				1.0808	1.0814	1.0820	1.0826	1.0841	1.0856	1.0870	1.0885	1.0899	1.0913

TABLE 4 - CONTINUED

DENSITY OF COMPRESSED LIQUID OXYGEN - CONTINUED

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/OM3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
102.0				0.9463	0.9468	0.9473	0.9479	0.9492	0.9504	0.9517	0.9530	0.9542	0.9554
-171.15				0.9468	0.9473	0.9479	0.9484	0.9497	0.9510	0.9522	0.9535	0.9547	0.9560
2.997				1.0803	1.0809	1.0815	1.0821	1.0836	1.0851	1.0865	1.0879	1.0894	1.0908
102.1				0.9458	0.9463	0.9469	0.9474	0.9487	0.9500	0.9513	0.9525	0.9538	0.9550
-171.05				0.9463	0.9469	0.9474	0.9479	0.9492	0.9505	0.9518	0.9530	0.9543	0.9555
3.021				1.0798	1.0804	1.0810	1.0816	1.0831	1.0845	1.0860	1.0874	1.0888	1.0902
102.2				0.9453	0.9459	0.9464	0.9469	0.9482	0.9495	0.9508	0.9521	0.9533	0.9545
-170.95				0.9458	0.9464	0.9469	0.9474	0.9487	0.9500	0.9513	0.9526	0.9538	0.9551
3.045				1.0792	1.0798	1.0804	1.0810	1.0825	1.0840	1.0855	1.0869	1.0883	1.0897
102.3				0.9448	0.9454	0.9459	0.9464	0.9478	0.9490	0.9503	0.9516	0.9528	0.9541
-170.85				0.9454	0.9459	0.9464	0.9470	0.9483	0.9496	0.9508	0.9521	0.9534	0.9546
3.070				1.0787	1.0793	1.0799	1.0805	1.0820	1.0835	1.0849	1.0864	1.0878	1.0892
102.4				0.9444	0.9449	0.9454	0.9460	0.9473	0.9486	0.9498	0.9511	0.9524	0.9536
-170.75				0.9449	0.9454	0.9460	0.9465	0.9478	0.9491	0.9504	0.9517	0.9529	0.9542
3.094				1.0781	1.0787	1.0793	1.0799	1.0814	1.0829	1.0844	1.0858	1.0873	1.0887
102.5				0.9439	0.9444	0.9450	0.9455	0.9468	0.9481	0.9494	0.9507	0.9519	0.9532
-170.65				0.9444	0.9449	0.9455	0.9460	0.9473	0.9486	0.9499	0.9512	0.9525	0.9537
3.119				1.0776	1.0782	1.0788	1.0794	1.0809	1.0824	1.0839	1.0853	1.0868	1.0882
102.6				0.9434	0.9439	0.9445	0.9450	0.9463	0.9476	0.9489	0.9502	0.9515	0.9527
-170.55				0.9439	0.9445	0.9450	0.9455	0.9468	0.9482	0.9495	0.9507	0.9520	0.9532
3.144				1.0770	1.0776	1.0783	1.0789	1.0804	1.0819	1.0833	1.0848	1.0862	1.0877
102.7				0.9429	0.9435	0.9440	0.9445	0.9458	0.9472	0.9485	0.9498	0.9510	0.9523
-170.45				0.9434	0.9440	0.9445	0.9451	0.9464	0.9477	0.9490	0.9503	0.9515	0.9528
3.169				1.0765	1.0771	1.0777	1.0783	1.0798	1.0813	1.0828	1.0843	1.0857	1.0871
102.8				0.9425	0.9430	0.9435	0.9441	0.9454	0.9467	0.9480	0.9493	0.9506	0.9518
-170.35				0.9430	0.9435	0.9440	0.9446	0.9459	0.9472	0.9485	0.9498	0.9511	0.9523
3.194				1.0759	1.0765	1.0772	1.0778	1.0793	1.0808	1.0823	1.0837	1.0852	1.0866
102.9				0.9420	0.9425	0.9431	0.9436	0.9449	0.9462	0.9475	0.9488	0.9501	0.9514
-170.25				0.9425	0.9430	0.9436	0.9441	0.9454	0.9468	0.9481	0.9493	0.950E	0.9519
3.219				1.0754	1.0760	1.0766	1.0772	1.0788	1.0803	1.0817	1.0832	1.0847	1.0861
103.0				0.9415	0.9420	0.9426	0.9431	0.9445	0.9458	0.9471	0.9484	0.9496	0.9509
-170.15				0.9420	0.9425	0.9431	0.9436	0.9450	0.9463	0.9476	0.9489	0.9502	0.9514
3.245				1.0748	1.0755	1.0761	1.0767	1.0782	1.0797	1.0812	1.0827	1.0841	1.0856
103.1				0.9410	0.9416	0.9421	0.9426	0.9440	0.9453	0.9466	0.9479	0.9492	0.9504
-170.05				0.9415	0.9421	0.9426	0.9432	0.9445	0.9458	0.9471	0.9484	0.9497	0.9510
3.271				1.0743	1.0749	1.0755	1.0761	1.0777	1.0792	1.0807	1.0822	1.083E	1.0851
103.2				0.9405	0.9411	0.9416	0.9422	0.9435	0.9448	0.9461	0.9474	0.9487	0.9500
-169.95				0.9410	0.9416	0.9421	0.9427	0.9440	0.9453	0.9467	0.9480	0.9492	0.9505
3.296				1.0737	1.0744	1.0750	1.0756	1.0771	1.0786	1.0801	1.0816	1.0831	1.0845
103.3				0.9400	0.9406	0.9411	0.9417	0.9430	0.9444	0.9457	0.9470	0.9483	0.9495
-169.85				0.9406	0.9411	0.9417	0.9422	0.9435	0.9449	0.9462	0.9475	0.9488	0.9501
3.322				1.0732	1.0738	1.0744	1.0751	1.0766	1.0781	1.0796	1.0811	1.0826	1.0840
103.4				0.9396	0.9401	0.9407	0.9412	0.942E	0.9439	0.9452	0.9465	0.9478	0.9491
-169.75				0.9401	0.9406	0.9412	0.9417	0.9431	0.9444	0.9457	0.9470	0.9483	0.9496
3.348				1.0726	1.0733	1.0739	1.0745	1.0760	1.0776	1.0791	1.0806	1.0820	1.0835
103.5				0.9391	0.9396	0.9402	0.9407	0.9421	0.9434	0.9447	0.9460	0.9473	0.9486
-169.65				0.9396	0.9401	0.9407	0.9412	0.942E	0.9439	0.9451	0.9466	0.9479	0.9491
3.375				1.0721	1.0727	1.0733	1.0740	1.0755	1.0770	1.0785	1.0800	1.0815	1.0830
103.6				0.9386	0.9391	0.9397	0.9402	0.9416	0.9429	0.9443	0.9456	0.9469	0.9482
-169.55				0.9391	0.9397	0.9402	0.9408	0.9421	0.9435	0.9448	0.9461	0.9474	0.9487
3.401				1.0715	1.0722	1.0728	1.0734	1.0750	1.07E5	1.0780	1.0795	1.0810	1.0824
103.7				0.9381	0.9387	0.9392	0.9398	0.9411	0.9425	0.9438	0.9451	0.9464	0.9477
-169.45				0.9386	0.9392	0.9397	0.9403	0.941E	0.9430	0.9443	0.9456	0.94E9	0.9482
3.428				1.0710	1.0716	1.0722	1.0729	1.0744	1.0760	1.0775	1.0790	1.0805	1.0819
103.8				0.9376	0.9382	0.9387	0.9393	0.9407	0.9420	0.9433	0.9447	0.9460	0.9472
-169.35				0.9381	0.9387	0.9392	0.9398	0.9412	0.9425	0.9439	0.9452	0.9465	0.9478
3.454				1.0704	1.0711	1.0717	1.0723	1.0739	1.0754	1.0769	1.0784	1.0799	1.0814
103.9				0.9371	0.9377	0.9382	0.9388	0.9402	0.9415	0.9429	0.9442	0.9455	0.9468
-169.25				0.9376	0.9382	0.9388	0.9393	0.9407	0.9420	0.9434	0.9447	0.9460	0.9473
3.481				1.0699	1.0705	1.0711	1.0718	1.0733	1.0749	1.0764	1.0779	1.0794	1.0809

TABLE ENTRIES

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
104.0				0.9366	0.9372	0.9378	0.9383	0.9397	0.9411	0.9424	0.9437	0.9450	0.9463
-169.15				0.9372	0.9377	0.9383	0.9388	0.9402	0.9416	0.9429	0.9442	0.9455	0.9468
3.508				1.0693	1.0699	1.0706	1.0712	1.0728	1.0743	1.0759	1.0774	1.0788	1.0804
104.1				0.9362	0.9367	0.9373	0.9378	0.9392	0.9406	0.9419	0.9433	0.9446	0.9459
-169.05				0.9367	0.9372	0.9378	0.9384	0.9397	0.9411	0.9424	0.9438	0.9451	0.9464
3.536				1.0687	1.0694	1.0700	1.0707	1.0722	1.0738	1.0753	1.0768	1.0783	1.0798
104.2				0.9357	0.9362	0.9368	0.9374	0.9387	0.9401	0.9415	0.9428	0.9441	0.9454
-168.95				0.9362	0.9367	0.9373	0.9379	0.9393	0.9406	0.9420	0.9433	0.9446	0.9459
3.563				1.0682	1.0688	1.0695	1.0701	1.0717	1.0733	1.0748	1.0763	1.0778	1.0793
104.3				0.9352	0.9358	0.9363	0.9369	0.9383	0.9396	0.9410	0.9423	0.9436	0.9449
-168.85				0.9357	0.9363	0.9368	0.9374	0.9388	0.9401	0.9415	0.9428	0.9442	0.9455
3.590				1.0676	1.0683	1.0689	1.0696	1.0711	1.0727	1.0743	1.0758	1.0773	1.0788
104.4				0.9347	0.9353	0.9358	0.9364	0.9378	0.9392	0.9405	0.9419	0.9432	0.9445
-168.75				0.9352	0.9358	0.9363	0.9369	0.9383	0.9397	0.9410	0.9424	0.9437	0.9450
3.618				1.0671	1.0677	1.0684	1.0690	1.0706	1.0722	1.0737	1.0752	1.0768	1.0783
104.5				0.9342	0.9348	0.9353	0.9359	0.9373	0.9387	0.9400	0.9414	0.9427	0.9440
-168.65				0.9347	0.9353	0.9359	0.9364	0.9378	0.9392	0.9406	0.9419	0.9432	0.9445
3.646				1.0665	1.0672	1.0678	1.0685	1.0701	1.0716	1.0732	1.0747	1.0762	1.0777
104.6				0.9337	0.9343	0.9349	0.9354	0.9368	0.9382	0.9396	0.9409	0.9422	0.9436
-168.55				0.9342	0.9348	0.9354	0.9359	0.9373	0.9387	0.9401	0.9414	0.9428	0.9441
3.674				1.0660	1.0666	1.0673	1.0679	1.0695	1.0711	1.0726	1.0742	1.0757	1.0772
104.7				0.9332	0.9338	0.9344	0.9349	0.9363	0.9377	0.9391	0.9404	0.9418	0.9431
-168.45				0.9337	0.9343	0.9349	0.9354	0.9368	0.9382	0.9396	0.9410	0.9423	0.9436
3.702				1.0654	1.0661	1.0667	1.0674	1.0690	1.0705	1.0721	1.0736	1.0752	1.0767
104.8				0.9327	0.9333	0.9339	0.9345	0.9358	0.9372	0.9386	0.9400	0.9413	0.9426
-168.35				0.9332	0.9338	0.9344	0.9350	0.9364	0.9378	0.9391	0.9405	0.9418	0.9432
3.730				1.0648	1.0655	1.0662	1.0668	1.0684	1.0700	1.0716	1.0731	1.0746	1.0761
104.9				0.9322	0.9328	0.9334	0.9340	0.9354	0.9368	0.9381	0.9395	0.9408	0.9422
-168.25				0.9328	0.9333	0.9339	0.9345	0.9359	0.9373	0.9387	0.9400	0.9414	0.9427
3.759				1.0643	1.0649	1.0656	1.0662	1.0679	1.0694	1.0710	1.0726	1.0741	1.0756
105.0				0.9318	0.9323	0.9329	0.9335	0.9349	0.9363	0.9377	0.9390	0.9404	0.9417
-168.15				0.9323	0.9328	0.9334	0.9340	0.9354	0.9368	0.9382	0.9395	0.9409	0.9422
3.787				1.0637	1.0644	1.0650	1.0657	1.0673	1.0689	1.0705	1.0720	1.0736	1.0751
105.1				0.9313	0.9318	0.9324	0.9330	0.9344	0.9358	0.9372	0.9386	0.9399	0.9412
-168.05				0.9318	0.9324	0.9329	0.9335	0.9349	0.9363	0.9377	0.9391	0.9404	0.9418
3.816				1.0632	1.0638	1.0645	1.0651	1.0668	1.0684	1.0699	1.0715	1.0730	1.0746
105.2				0.9308	0.9314	0.9319	0.9325	0.9339	0.9353	0.9367	0.9381	0.9394	0.9408
-167.95				0.9313	0.9319	0.9324	0.9330	0.9344	0.9358	0.9372	0.9386	0.9400	0.9413
3.845				1.0626	1.0633	1.0639	1.0646	1.0662	1.0678	1.0694	1.0710	1.0725	1.0740
105.3				0.9303	0.9309	0.9314	0.9320	0.9334	0.9349	0.9362	0.9376	0.9390	0.9403
-167.85				0.9308	0.9314	0.9320	0.9325	0.9340	0.9354	0.9368	0.9381	0.9395	0.9408
3.874				1.0620	1.0627	1.0634	1.0640	1.0657	1.0673	1.0688	1.0704	1.0720	1.0735
105.4				0.9298	0.9304	0.9310	0.9315	0.9330	0.9344	0.9358	0.9372	0.9385	0.9399
-167.75				0.9303	0.9309	0.9315	0.9320	0.9335	0.9349	0.9363	0.9377	0.9390	0.9404
3.903				1.0615	1.0621	1.0628	1.0635	1.0651	1.0667	1.0683	1.0699	1.0714	1.0730
105.5				0.9293	0.9299	0.9305	0.9310	0.9325	0.9339	0.9353	0.9367	0.9380	0.9394
-167.65				0.9298	0.9304	0.9310	0.9316	0.9330	0.9344	0.9358	0.9372	0.9386	0.9399
3.933				1.0609	1.0616	1.0622	1.0629	1.0645	1.0662	1.0678	1.0693	1.0709	1.0724
105.6				0.9288	0.9294	0.9300	0.9306	0.9320	0.9334	0.9348	0.9362	0.9376	0.9389
-167.55				0.9293	0.9299	0.9305	0.9311	0.9325	0.9339	0.9353	0.9367	0.9381	0.9394
3.962				1.0603	1.0610	1.0617	1.0623	1.0640	1.0656	1.0672	1.0688	1.0704	1.0719
105.7				0.9283	0.9289	0.9295	0.9301	0.9315	0.9329	0.9343	0.9357	0.9371	0.9385
-167.45				0.9288	0.9294	0.9300	0.9306	0.9320	0.9334	0.9348	0.9362	0.9376	0.9390
3.992				1.0598	1.0605	1.0611	1.0618	1.0634	1.0651	1.0667	1.0683	1.0698	1.0714
105.8					0.9284	0.9290	0.9296	0.9310	0.9325	0.9339	0.9353	0.9366	0.9380
-167.35					0.9289	0.9295	0.9301	0.9315	0.9330	0.9344	0.9358	0.9371	0.9385
4.022					1.0599	1.0606	1.0612	1.0629	1.0645	1.0661	1.0677	1.0693	1.0708
105.9					0.9279	0.9285	0.9291	0.9305	0.9320	0.9334	0.9348	0.9362	0.9375
-167.25					0.9284	0.9290	0.9296	0.9310	0.9325	0.9339	0.9353	0.9367	0.9380
4.052					1.0593	1.0600	1.0607	1.0623	1.0640	1.0656	1.0672	1.0688	1.0703

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
106.0					0.9274	0.9280	0.9286	0.9300	0.9315	0.9329	0.9343	0.9357	0.9371
-167.15					0.9279	0.9285	0.9291	0.9306	0.9320	0.9334	0.9348	0.9362	0.9376
4.082					1.0588	1.0594	1.0601	1.0618	1.0634	1.0650	1.0668	1.0682	1.0698
106.1					0.9269	0.9275	0.9281	0.9296	0.9310	0.9324	0.9338	0.9352	0.9366
-167.05					0.9274	0.9280	0.9286	0.9301	0.9315	0.9329	0.9343	0.9357	0.9371
4.113					1.0582	1.0589	1.0595	1.0612	1.0629	1.0645	1.0661	1.0677	1.0692
106.2					0.9264	0.9270	0.9276	0.9291	0.9305	0.9319	0.9334	0.9348	0.9361
-166.95					0.9269	0.9275	0.9281	0.9296	0.9310	0.9325	0.9339	0.9353	0.9366
4.143					1.0576	1.0583	1.0590	1.0607	1.0623	1.0639	1.0655	1.0671	1.0687
106.3					0.9259	0.9265	0.9271	0.9286	0.9300	0.9315	0.9329	0.9343	0.9357
-166.85					0.9264	0.9270	0.9276	0.9291	0.9305	0.9320	0.9334	0.9348	0.9362
4.174					1.0571	1.0577	1.0584	1.0601	1.0618	1.0634	1.0650	1.0666	1.0682
106.4					0.9254	0.9260	0.9266	0.9281	0.9296	0.9310	0.9324	0.9338	0.9352
-166.75					0.9259	0.9265	0.9271	0.9286	0.9301	0.9315	0.9329	0.9343	0.9357
4.205					1.0565	1.0572	1.0579	1.0595	1.0612	1.0628	1.0645	1.0661	1.0676
106.5					0.9249	0.9255	0.9261	0.9276	0.9291	0.9305	0.9319	0.9333	0.9347
-166.65					0.9254	0.9260	0.9266	0.9281	0.9296	0.9310	0.9324	0.9338	0.9352
4.236					1.0559	1.0566	1.0573	1.0590	1.0607	1.0623	1.0639	1.0655	1.0671
106.6					0.9244	0.9250	0.9256	0.9271	0.9286	0.9300	0.9315	0.9329	0.9342
-166.55					0.9249	0.9255	0.9261	0.9276	0.9291	0.9305	0.9320	0.9334	0.9348
4.267					1.0554	1.0560	1.0567	1.0584	1.0601	1.0617	1.0634	1.0650	1.0666
106.7					0.9239	0.9245	0.9251	0.9266	0.9281	0.9295	0.9310	0.9324	0.9338
-166.45					0.9244	0.9250	0.9256	0.9271	0.9286	0.9301	0.9315	0.9329	0.9343
4.299					1.0548	1.0555	1.0562	1.0579	1.0595	1.0612	1.0628	1.0644	1.0660
106.8					0.9234	0.9240	0.9246	0.9261	0.9276	0.9291	0.9305	0.9319	0.9333
-166.35					0.9239	0.9245	0.9251	0.9266	0.9281	0.9296	0.9310	0.9324	0.9338
4.330					1.0542	1.0549	1.0556	1.0573	1.0590	1.0606	1.0623	1.0639	1.0655
106.9					0.9229	0.9235	0.9241	0.9256	0.9271	0.9286	0.9300	0.9314	0.9328
-166.25					0.9234	0.9240	0.9247	0.9262	0.9276	0.9291	0.9305	0.9319	0.9333
4.362					1.0536	1.0543	1.0550	1.0567	1.0584	1.0601	1.0617	1.0634	1.0650
107.0					0.9224	0.9230	0.9237	0.9252	0.9266	0.9281	0.9295	0.9310	0.9324
-166.15					0.9229	0.9235	0.9242	0.9257	0.9271	0.9286	0.9300	0.9315	0.9329
4.394					1.0531	1.0538	1.0545	1.0562	1.0579	1.0595	1.0612	1.0628	1.0644
107.1					0.9219	0.9225	0.9232	0.9247	0.9261	0.9276	0.9291	0.9305	0.9319
-166.05					0.9224	0.9230	0.9237	0.9252	0.9267	0.9281	0.9296	0.9310	0.9324
4.426					1.0525	1.0532	1.0539	1.0556	1.0573	1.0590	1.0606	1.0623	1.0639
107.2					0.9214	0.9220	0.9227	0.9242	0.9257	0.9271	0.9286	0.9300	0.9314
-165.95					0.9219	0.9225	0.9232	0.9247	0.9262	0.9276	0.9291	0.9305	0.9319
4.458					1.0519	1.0526	1.0533	1.0551	1.0568	1.0584	1.0601	1.0617	1.0633
107.3					0.9209	0.9215	0.9222	0.9237	0.9252	0.9266	0.9281	0.9295	0.9310
-165.85					0.9214	0.9220	0.9227	0.9242	0.9257	0.9271	0.9286	0.9300	0.9315
4.491					1.0514	1.0521	1.0528	1.0545	1.0562	1.0579	1.0595	1.0612	1.0628
107.4					0.9204	0.9210	0.9217	0.9232	0.9247	0.9262	0.9276	0.9291	0.9305
-165.75					0.9209	0.9215	0.9222	0.9237	0.9252	0.9267	0.9281	0.9296	0.9310
4.523					1.0508	1.0515	1.0522	1.0539	1.0556	1.0573	1.0590	1.0606	1.0623
107.5					0.9199	0.9205	0.9212	0.9227	0.9242	0.9257	0.9271	0.9286	0.9300
-165.65					0.9204	0.9210	0.9217	0.9232	0.9247	0.9262	0.9276	0.9291	0.9305
4.556					1.0502	1.0509	1.0516	1.0534	1.0551	1.0568	1.0584	1.0601	1.0617
107.6					0.9194	0.9200	0.9207	0.9222	0.9237	0.9252	0.9267	0.9281	0.9295
-165.55					0.9199	0.9205	0.9212	0.9227	0.9242	0.9257	0.9272	0.9286	0.9300
4.589					1.0496	1.0503	1.0511	1.0528	1.0545	1.0562	1.0579	1.0595	1.0612
107.7					0.9189	0.9195	0.9202	0.9217	0.9232	0.9247	0.9262	0.9276	0.9291
-165.45					0.9194	0.9200	0.9207	0.9222	0.9237	0.9252	0.9267	0.9281	0.9296
4.622					1.0491	1.0498	1.0505	1.0522	1.0540	1.0557	1.0573	1.0590	1.0606
107.8					0.9184	0.9190	0.9197	0.9212	0.9227	0.9242	0.9257	0.9271	0.9286
-165.35					0.9189	0.9195	0.9202	0.9217	0.9232	0.9247	0.9262	0.9277	0.9291
4.655					1.0485	1.0492	1.0499	1.0517	1.0534	1.0551	1.0568	1.0585	1.0601
107.9					0.9179	0.9185	0.9192	0.9207	0.9222	0.9237	0.9252	0.9267	0.9281
-165.25					0.9184	0.9190	0.9197	0.9212	0.9227	0.9242	0.9257	0.9272	0.9286
4.689					1.0479	1.0486	1.0493	1.0511	1.0528	1.0546	1.0562	1.0579	1.0595

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/M**3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
108.0					0.9174	0.9180	0.9187	0.9202	0.9217	0.9232	0.9247	0.9262	0.9276
-165.15					0.9179	0.9185	0.9192	0.9207	0.9222	0.9237	0.9252	0.9267	0.9281
4.723					1.0473	1.0480	1.0488	1.0505	1.0523	1.0540	1.0557	1.0574	1.0590
108.1					0.9169	0.9175	0.9182	0.9197	0.9212	0.9227	0.9242	0.9257	0.9272
-165.05					0.9174	0.9180	0.9187	0.9202	0.9217	0.9233	0.9247	0.9262	0.9277
4.756					1.0467	1.0475	1.0482	1.0500	1.0517	1.0534	1.0551	1.0568	1.0585
108.2					0.9164	0.9170	0.9176	0.9192	0.9207	0.9223	0.9238	0.9252	0.9267
-164.95					0.9169	0.9175	0.9181	0.9197	0.9212	0.9228	0.9243	0.9257	0.9272
4.790					1.0462	1.0469	1.0476	1.0494	1.0511	1.0529	1.0546	1.0563	1.0579
108.3					0.9159	0.9165	0.9171	0.9187	0.9202	0.9218	0.9233	0.9247	0.9262
-164.85					0.9164	0.9170	0.9176	0.9192	0.9208	0.9223	0.9238	0.9252	0.9267
4.825					1.0456	1.0463	1.0470	1.0488	1.0506	1.0523	1.0540	1.0557	1.0574
108.4					0.9154	0.9160	0.9166	0.9182	0.9198	0.9213	0.9228	0.9243	0.9257
-164.75					0.9159	0.9165	0.9171	0.9187	0.9203	0.9218	0.9233	0.9248	0.9262
4.859					1.0450	1.0457	1.0465	1.0483	1.0500	1.0518	1.0535	1.0552	1.0568
108.5					0.9149	0.9155	0.9161	0.9177	0.9193	0.9208	0.9223	0.9238	0.9252
-164.65					0.9154	0.9160	0.9166	0.9182	0.9198	0.9213	0.9228	0.9243	0.9258
4.894					1.0444	1.0452	1.0459	1.0477	1.0495	1.0512	1.0529	1.0546	1.0563
108.6					0.9143	0.9150	0.9156	0.9172	0.9188	0.9203	0.9218	0.9233	0.9248
-164.55					0.9148	0.9155	0.9161	0.9177	0.9193	0.9208	0.9223	0.9238	0.9253
4.928					1.0438	1.0446	1.0453	1.0471	1.0489	1.0506	1.0524	1.0541	1.0557
108.7					0.9138	0.9145	0.9151	0.9167	0.9183	0.9198	0.9213	0.9228	0.9243
-164.45					0.9143	0.9150	0.9156	0.9172	0.9188	0.9203	0.9218	0.9233	0.9248
4.963					1.0433	1.0440	1.0447	1.0465	1.0483	1.0501	1.0518	1.0535	1.0552
108.8					0.9133	0.9140	0.9146	0.9162	0.9178	0.9193	0.9208	0.9223	0.9238
-164.35					0.9138	0.9145	0.9151	0.9167	0.9183	0.9198	0.9213	0.9228	0.9243
4.998					1.0427	1.0434	1.0442	1.0460	1.0478	1.0495	1.0512	1.0530	1.0546
108.9					0.9128	0.9135	0.9141	0.9157	0.9173	0.9188	0.9203	0.9218	0.9233
-164.25					0.9133	0.9140	0.9146	0.9162	0.9178	0.9193	0.9208	0.9224	0.9238
5.034					1.0421	1.0428	1.0436	1.0454	1.0472	1.0490	1.0507	1.0524	1.0541
109.0					0.9123	0.9130	0.9136	0.9152	0.9168	0.9183	0.9199	0.9214	0.9229
-164.15					0.9128	0.9135	0.9141	0.9157	0.9173	0.9188	0.9204	0.9219	0.9234
5.069					1.0415	1.0423	1.0430	1.0448	1.0466	1.0484	1.0501	1.0519	1.0536
109.1					0.9118	0.9124	0.9131	0.9147	0.9163	0.9178	0.9194	0.9209	0.9224
-164.05					0.9123	0.9129	0.9136	0.9152	0.9168	0.9183	0.9199	0.9214	0.9229
5.105					1.0409	1.0417	1.0424	1.0442	1.0460	1.0478	1.0496	1.0513	1.0530
109.2					0.9113	0.9119	0.9126	0.9142	0.9158	0.9173	0.9189	0.9204	0.9219
-163.95					0.9118	0.9124	0.9131	0.9147	0.9163	0.9178	0.9194	0.9209	0.9224
5.141					1.0403	1.0411	1.0418	1.0437	1.0455	1.0473	1.0490	1.0507	1.0525
109.3					0.9108	0.9114	0.9121	0.9137	0.9153	0.9168	0.9184	0.9199	0.9214
-163.85					0.9113	0.9119	0.9126	0.9142	0.9158	0.9173	0.9189	0.9204	0.9219
5.177					1.0398	1.0405	1.0412	1.0431	1.0449	1.0467	1.0485	1.0502	1.0519
109.4					0.9102	0.9109	0.9116	0.9132	0.9148	0.9163	0.9179	0.9194	0.9209
-163.75					0.9107	0.9114	0.9121	0.9137	0.9153	0.9168	0.9184	0.9199	0.9214
5.213					1.0392	1.0399	1.0407	1.0425	1.0443	1.0461	1.0479	1.0496	1.0514
109.5					0.9097	0.9104	0.9111	0.9127	0.9143	0.9159	0.9174	0.9189	0.9204
-163.65					0.9102	0.9109	0.9115	0.9132	0.9148	0.9164	0.9179	0.9194	0.9209
5.249					1.0386	1.0393	1.0401	1.0419	1.0438	1.0456	1.0473	1.0491	1.0508
109.6					0.9092	0.9099	0.9105	0.9122	0.9138	0.9154	0.9169	0.9184	0.9200
-163.55					0.9097	0.9104	0.9110	0.9127	0.9143	0.9159	0.9174	0.9189	0.9205
5.286					1.0380	1.0387	1.0395	1.0414	1.0432	1.0450	1.0468	1.0485	1.0503
109.7					0.9087	0.9094	0.9100	0.9117	0.9133	0.9149	0.9164	0.9180	0.9195
-163.45					0.9092	0.9099	0.9105	0.9122	0.9138	0.9154	0.9169	0.9185	0.9200
5.323					1.0374	1.0382	1.0389	1.0408	1.0426	1.0444	1.0462	1.0480	1.0497
109.8					0.9082	0.9088	0.9095	0.9112	0.9128	0.9144	0.9159	0.9175	0.9190
-163.35					0.9087	0.9093	0.9100	0.9117	0.9133	0.9149	0.9164	0.9180	0.9195
5.359					1.0368	1.0376	1.0383	1.0402	1.0420	1.0439	1.0456	1.0474	1.0492
109.9					0.9077	0.9083	0.9090	0.9106	0.9123	0.9139	0.9154	0.9170	0.9185
-163.25					0.9082	0.9088	0.9095	0.9111	0.9128	0.9144	0.9159	0.9175	0.9190
5.397					1.0362	1.0370	1.0377	1.0396	1.0415	1.0433	1.0451	1.0469	1.0486

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/M3

BAR KP/CM2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
110.0 -163.15 5.434					0.9071 0.9076 1.0356	0.9078 0.9083 1.0364	0.9085 0.9090 1.0372	0.9101 0.9106 1.0390	0.9118 0.9123 1.0409	0.9134 0.9139 1.0427	0.9149 0.9154 1.0445	0.9165 0.9170 1.0463	0.9180 0.9185 1.0480
110.1 -163.05 5.471					0.9066 0.9071 1.0350	0.9073 0.9078 1.0358	0.9080 0.9085 1.0366	0.9096 0.9101 1.0385	0.9113 0.9118 1.0403	0.9129 0.9134 1.0422	0.9144 0.9149 1.0440	0.9160 0.9165 1.0457	0.9175 0.9180 1.0475
110.2 -162.95 5.509					0.9061 0.9066 1.0344	0.9068 0.9073 1.0352	0.9075 0.9080 1.0360	0.9091 0.9096 1.0379	0.9108 0.9113 1.0397	0.9124 0.9129 1.0416	0.9140 0.9144 1.0434	0.9155 0.9160 1.0452	0.9171 0.9176 1.0469
110.3 -162.85 5.547					0.9056 0.9061 1.0338	0.9063 0.9068 1.0346	0.9069 0.9074 1.0354	0.9086 0.9091 1.0373	0.9102 0.9107 1.0392	0.9119 0.9124 1.0410	0.9135 0.9140 1.0428	0.9150 0.9155 1.0446	0.9166 0.9171 1.0464
110.4 -162.75 5.585					0.9051 0.9056 1.0332	0.9057 0.9062 1.0340	0.9064 0.9069 1.0348	0.9081 0.9086 1.0367	0.9097 0.9102 1.0386	0.9114 0.9119 1.0404	0.9130 0.9135 1.0423	0.9145 0.9150 1.0441	0.9161 0.9166 1.0458
110.5 -162.65 5.623					0.9045 0.9050 1.0326	0.9052 0.9057 1.0334	0.9059 0.9064 1.0342	0.9076 0.9081 1.0361	0.9092 0.9097 1.0380	0.9109 0.9114 1.0399	0.9125 0.9130 1.0417	0.9140 0.9145 1.0435	0.9156 0.9161 1.0453
110.6 -162.55 5.662					0.9040 0.9045 1.0321	0.9047 0.9052 1.0328	0.9054 0.9059 1.0336	0.9071 0.9076 1.0355	0.9087 0.9092 1.0374	0.9104 0.9109 1.0393	0.9120 0.9125 1.0411	0.9135 0.9140 1.0429	0.9151 0.9156 1.0447
110.7 -162.45 5.700					0.9035 0.9040 1.0315	0.9042 0.9047 1.0322	0.9049 0.9054 1.0330	0.9066 0.9071 1.0350	0.9082 0.9087 1.0368	0.9099 0.9104 1.0387	0.9115 0.9120 1.0406	0.9131 0.9136 1.0424	0.9146 0.9151 1.0442
110.8 -162.35 5.739					0.9030 0.9035 1.0309	0.9037 0.9042 1.0316	0.9043 0.9048 1.0324	0.9060 0.9065 1.0344	0.9077 0.9082 1.0363	0.9094 0.9098 1.0381	0.9110 0.9115 1.0400	0.9126 0.9131 1.0418	0.9141 0.9146 1.0436
110.9 -162.25 5.778					0.9024 0.9029 1.0303	0.9031 0.9036 1.0310	0.9038 0.9043 1.0318	0.9055 0.9060 1.0338	0.9072 0.9077 1.0357	0.9088 0.9093 1.0376	0.9105 0.9110 1.0394	0.9121 0.9126 1.0412	0.9136 0.9141 1.0430
111.0 -162.15 5.818					0.9019 0.9024 1.0297	0.9026 0.9031 1.0305	0.9033 0.9038 1.0312	0.9050 0.9055 1.0332	0.9067 0.9072 1.0351	0.9083 0.9088 1.0370	0.9100 0.9105 1.0388	0.9116 0.9121 1.0407	0.9131 0.9136 1.0425
111.1 -162.05 5.857					0.9014 0.9019 1.0291	0.9021 0.9026 1.0299	0.9028 0.9033 1.0306	0.9045 0.9050 1.0326	0.9062 0.9067 1.0345	0.9078 0.9083 1.0364	0.9095 0.9100 1.0383	0.9111 0.9116 1.0401	0.9127 0.9132 1.0419
111.2 -161.95 5.897					0.9009 0.9014 1.0285	0.9016 0.9021 1.0293	0.9023 0.9028 1.0300	0.9040 0.9045 1.0320	0.9057 0.9062 1.0339	0.9073 0.9078 1.0358	0.9090 0.9095 1.0377	0.9106 0.9111 1.0395	0.9122 0.9127 1.0414
111.3 -161.85 5.936					0.9003 0.9008 1.0279	0.9010 0.9015 1.0287	0.9017 0.9022 1.0295	0.9035 0.9040 1.0314	0.9052 0.9057 1.0334	0.9068 0.9073 1.0353	0.9085 0.9090 1.0371	0.9101 0.9106 1.0390	0.9117 0.9122 1.0408
111.4 -161.75 5.976					0.8998 0.9003 1.0272	0.9005 0.9010 1.0281	0.9012 0.9017 1.0289	0.9029 0.9034 1.0308	0.9046 0.9051 1.0328	0.9063 0.9068 1.0347	0.9080 0.9085 1.0366	0.9096 0.9101 1.0384	0.9112 0.9117 1.0402
111.5 -161.65 6.017						0.9000 0.9005 1.0275	0.9007 0.9012 1.0283	0.9024 0.9029 1.0302	0.9041 0.9046 1.0322	0.9058 0.9063 1.0341	0.9075 0.9080 1.0360	0.9091 0.9096 1.0378	0.9107 0.9112 1.0397
111.6 -161.55 6.057						0.8995 0.9000 1.0268	0.9002 0.9007 1.0277	0.9019 0.9024 1.0296	0.9036 0.9041 1.0316	0.9053 0.9058 1.0335	0.9070 0.9075 1.0354	0.9086 0.9091 1.0373	0.9102 0.9107 1.0391
111.7 -161.45 6.098						0.8989 0.8994 1.0262	0.8996 0.9001 1.0271	0.9014 0.9019 1.0291	0.9031 0.9036 1.0310	0.9048 0.9053 1.0329	0.9065 0.9070 1.0348	0.9081 0.9086 1.0367	0.9097 0.9102 1.0385
111.8 -161.35 6.139						0.8984 0.8989 1.0256	0.8991 0.8996 1.0265	0.9009 0.9014 1.0285	0.9026 0.9031 1.0304	0.9043 0.9048 1.0324	0.9060 0.9065 1.0343	0.9076 0.9081 1.0361	0.9092 0.9097 1.0380
111.9 -161.25 6.180						0.8979 0.8984 1.0250	0.8986 0.8991 1.0259	0.9003 0.9008 1.0279	0.9021 0.9026 1.0298	0.9038 0.9043 1.0318	0.9055 0.9059 1.0337	0.9071 0.9076 1.0356	0.9087 0.9092 1.0374

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
112.0						0.8973	0.8981	0.8998	0.9016	0.9033	0.9049	0.9066	0.9082
-161.15						0.8978	0.8985	0.9003	0.9021	0.9038	0.9054	0.9071	0.9087
6.221						1.0244	1.0252	1.0273	1.0292	1.0312	1.0331	1.0350	1.0369
112.1						0.8968	0.8975	0.8993	0.9010	0.9028	0.9044	0.9061	0.9077
-161.05						0.8973	0.8980	0.8998	0.9015	0.9032	0.9049	0.9066	0.9082
6.262						1.0238	1.0246	1.0267	1.0287	1.0306	1.0325	1.0344	1.0363
112.2						0.8963	0.8970	0.8988	0.9005	0.9022	0.9039	0.9056	0.9072
-160.95						0.8968	0.8975	0.8993	0.9010	0.9027	0.9044	0.9061	0.9077
6.304						1.0232	1.0240	1.0261	1.0281	1.0300	1.0320	1.0339	1.0357
112.3						0.8957	0.8965	0.8983	0.9000	0.9017	0.9034	0.9051	0.9067
-160.85						0.8962	0.8970	0.8987	0.9005	0.9022	0.9039	0.9056	0.9072
6.346						1.0226	1.0234	1.0255	1.0275	1.0294	1.0314	1.0333	1.0352
112.4						0.8952	0.8959	0.8977	0.8995	0.9012	0.9029	0.9046	0.9062
-160.75						0.8957	0.8964	0.8982	0.9000	0.9017	0.9034	0.9051	0.9067
6.388						1.0220	1.0228	1.0249	1.0269	1.0289	1.0308	1.0327	1.0346
112.5						0.8947	0.8954	0.8972	0.8990	0.9007	0.9024	0.9041	0.9057
-160.65						0.8952	0.8959	0.8977	0.8995	0.9012	0.9029	0.9046	0.9062
6.430						1.0214	1.0222	1.0243	1.0263	1.0283	1.0302	1.0321	1.0340
112.6						0.8941	0.8949	0.8967	0.8984	0.9002	0.9019	0.9036	0.9052
-160.55						0.8946	0.8954	0.8972	0.8989	0.9007	0.9024	0.9041	0.9057
6.472						1.0208	1.0216	1.0237	1.0257	1.0277	1.0296	1.0316	1.0335
112.7						0.8936	0.8943	0.8962	0.8979	0.8997	0.9014	0.9031	0.9047
-160.45						0.8941	0.8948	0.8966	0.8984	0.9002	0.9019	0.9036	0.9052
6.515						1.0202	1.0210	1.0231	1.0251	1.0271	1.0291	1.0310	1.0329
112.8						0.8931	0.8938	0.8956	0.8974	0.8992	0.9009	0.9026	0.9042
-160.35						0.8936	0.8943	0.8961	0.8979	0.8997	0.9014	0.9031	0.9047
6.558						1.0196	1.0204	1.0225	1.0245	1.0265	1.0285	1.0304	1.0323
112.9						0.8925	0.8933	0.8951	0.8969	0.8986	0.9004	0.9021	0.9037
-160.25						0.8930	0.8938	0.8956	0.8974	0.8991	0.9009	0.9026	0.9042
6.601						1.0189	1.0198	1.0219	1.0239	1.0259	1.0279	1.0298	1.0317
113.0						0.8920	0.8927	0.8946	0.8964	0.8981	0.8999	0.9016	0.9032
-160.15						0.8925	0.8932	0.8951	0.8969	0.8986	0.9004	0.9021	0.9037
6.644						1.0183	1.0192	1.0213	1.0233	1.0253	1.0273	1.0293	1.0312
113.1						0.8915	0.8922	0.8940	0.8958	0.8976	0.8993	0.9011	0.9027
-160.05						0.8919	0.8927	0.8945	0.8963	0.8981	0.8998	0.9016	0.9032
6.687						1.0177	1.0186	1.0207	1.0227	1.0247	1.0267	1.0287	1.0306
113.2						0.8909	0.8917	0.8935	0.8953	0.8971	0.8988	0.9006	0.9022
-159.95						0.8914	0.8922	0.8940	0.8958	0.8976	0.8993	0.9010	0.9027
6.731						1.0171	1.0180	1.0201	1.0221	1.0241	1.0261	1.0281	1.0300
113.3						0.8904	0.8911	0.8930	0.8948	0.8966	0.8983	0.9000	0.9017
-159.85						0.8909	0.8916	0.8935	0.8953	0.8971	0.8988	0.9005	0.9022
6.775						1.0165	1.0173	1.0194	1.0215	1.0236	1.0256	1.0275	1.0295
113.4						0.8898	0.8906	0.8924	0.8943	0.8961	0.8978	0.8995	0.9012
-159.75						0.8903	0.8911	0.8929	0.8948	0.8965	0.8983	0.9000	0.9017
6.819						1.0159	1.0167	1.0188	1.0209	1.0230	1.0250	1.0269	1.0289
113.5						0.8893	0.8901	0.8919	0.8937	0.8955	0.8973	0.8990	0.9007
-159.65						0.8898	0.8905	0.8924	0.8942	0.8960	0.8978	0.8995	0.9012
6.863						1.0152	1.0161	1.0182	1.0203	1.0224	1.0244	1.0264	1.0283
113.6						0.8888	0.8895	0.8914	0.8932	0.8950	0.8968	0.8985	0.9002
-159.55						0.8892	0.8900	0.8919	0.8937	0.8955	0.8973	0.8990	0.9007
6.908						1.0146	1.0155	1.0176	1.0197	1.0218	1.0238	1.0258	1.0277
113.7						0.8882	0.8890	0.8908	0.8927	0.8945	0.8963	0.8980	0.8997
-159.45						0.8887	0.8895	0.8913	0.8932	0.8950	0.8968	0.8985	0.9002
6.952						1.0140	1.0149	1.0170	1.0191	1.0212	1.0232	1.0252	1.0272
113.8						0.8877	0.8884	0.8903	0.8922	0.8940	0.8957	0.8975	0.8992
-159.35						0.8882	0.8889	0.8908	0.8926	0.8945	0.8962	0.8980	0.8997
6.997						1.0134	1.0143	1.0164	1.0185	1.0206	1.0226	1.0246	1.0266
113.9						0.8871	0.8879	0.8898	0.8916	0.8934	0.8952	0.8970	0.8987
-159.25						0.8876	0.8884	0.8903	0.8921	0.8939	0.8957	0.8975	0.8992
7.042						1.0128	1.0136	1.0158	1.0179	1.0200	1.0220	1.0240	1.0260

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
114.0						0.8866	0.8873	0.8892	0.8911	0.8929	0.8947	0.8965	0.8982
-159.15						0.8871	0.8878	0.8897	0.8916	0.8934	0.8952	0.8970	0.8987
7.088						1.0121	1.0130	1.0152	1.0173	1.0194	1.0214	1.0234	1.0254
114.1						0.8860	0.8868	0.8887	0.8906	0.8924	0.8942	0.8960	0.8977
-159.05						0.8865	0.8873	0.8892	0.8911	0.8929	0.8947	0.8965	0.8982
7.133						1.0115	1.0124	1.0146	1.0167	1.0188	1.0208	1.0229	1.0248
114.2						0.8855	0.8863	0.8882	0.8900	0.8919	0.8937	0.8955	0.8972
-158.95						0.8860	0.8867	0.8886	0.8905	0.8924	0.8942	0.8959	0.8977
7.179						1.0109	1.0118	1.0140	1.0161	1.0182	1.0202	1.0223	1.0243
114.3						0.8849	0.8857	0.8876	0.8895	0.8913	0.8932	0.8949	0.8967
-158.85						0.8854	0.8862	0.8881	0.8900	0.8918	0.8936	0.8954	0.8972
7.225						1.0103	1.0112	1.0133	1.0155	1.0176	1.0197	1.0217	1.0237
114.4						0.8844	0.8852	0.8871	0.8890	0.8908	0.8926	0.8944	0.8962
-158.75						0.8849	0.8856	0.8876	0.8895	0.8913	0.8931	0.8949	0.8967
7.271						1.0096	1.0105	1.0127	1.0149	1.0170	1.0191	1.0211	1.0231
114.5						0.8838	0.8846	0.8865	0.8884	0.8903	0.8921	0.8939	0.8957
-158.65						0.8843	0.8851	0.8870	0.8889	0.8908	0.8926	0.8944	0.8962
7.317						1.0090	1.0099	1.0121	1.0143	1.0164	1.0185	1.0205	1.0225
114.6						0.8833	0.8841	0.8860	0.8879	0.8898	0.8916	0.8934	0.8952
-158.55						0.8838	0.8846	0.8865	0.8884	0.8903	0.8921	0.8939	0.8956
7.364						1.0084	1.0093	1.0115	1.0137	1.0158	1.0179	1.0199	1.0219
114.7						0.8827	0.8835	0.8855	0.8874	0.8892	0.8911	0.8929	0.8946
-158.45						0.8832	0.8840	0.8859	0.8879	0.8897	0.8916	0.8934	0.8951
7.411						1.0077	1.0086	1.0109	1.0130	1.0152	1.0173	1.0193	1.0214
114.8						0.8822	0.8830	0.8849	0.8868	0.8887	0.8905	0.8924	0.8941
-158.35						0.8827	0.8835	0.8854	0.8873	0.8892	0.8910	0.8928	0.8946
7.458						1.0071	1.0080	1.0102	1.0124	1.0146	1.0167	1.0187	1.0208
114.9						0.8816	0.8824	0.8844	0.8863	0.8882	0.8900	0.8918	0.8936
-158.25						0.8821	0.8829	0.8849	0.8868	0.8887	0.8905	0.8923	0.8941
7.505						1.0065	1.0074	1.0096	1.0118	1.0140	1.0161	1.0182	1.0202
115.0						0.8811	0.8819	0.8838	0.8858	0.8876	0.8895	0.8913	0.8931
-158.15						0.8815	0.8823	0.8843	0.8862	0.8881	0.8900	0.8918	0.8936
7.552						1.0059	1.0068	1.0090	1.0112	1.0134	1.0155	1.0176	1.0196
115.1						0.8805	0.8813	0.8833	0.8852	0.8871	0.8890	0.8908	0.8926
-158.05						0.8810	0.8818	0.8838	0.8857	0.8876	0.8895	0.8913	0.8931
7.600						1.0052	1.0061	1.0084	1.0106	1.0128	1.0149	1.0170	1.0190
115.2						0.8800	0.8808	0.8827	0.8847	0.8866	0.8885	0.8903	0.8921
-157.95						0.8804	0.8812	0.8832	0.8852	0.8871	0.8889	0.8908	0.8926
7.648						1.0046	1.0055	1.0078	1.0100	1.0121	1.0143	1.0164	1.0184
115.3						0.8794	0.8802	0.8822	0.8841	0.8861	0.8879	0.8898	0.8916
-157.85						0.8799	0.8807	0.8827	0.8846	0.8865	0.8884	0.8903	0.8921
7.696						1.0039	1.0049	1.0071	1.0094	1.0115	1.0137	1.0158	1.0178
115.4						0.8788	0.8797	0.8816	0.8836	0.8855	0.8874	0.8892	0.8911
-157.75						0.8793	0.8801	0.8821	0.8841	0.8860	0.8879	0.8897	0.8915
7.744						1.0033	1.0042	1.0065	1.0087	1.0109	1.0131	1.0152	1.0173
115.5						0.8783	0.8791	0.8811	0.8831	0.8850	0.8869	0.8887	0.8905
-157.65						0.8788	0.8796	0.8816	0.8835	0.8855	0.8874	0.8892	0.8910
7.793						1.0027	1.0036	1.0059	1.0081	1.0103	1.0125	1.0146	1.0167
115.6						0.8777	0.8785	0.8805	0.8825	0.8844	0.8863	0.8882	0.8900
-157.55						0.8782	0.8790	0.8810	0.8830	0.8849	0.8868	0.8887	0.8905
7.842						1.0020	1.0030	1.0053	1.0075	1.0097	1.0119	1.0140	1.0161
115.7						0.8772	0.8780	0.8800	0.8820	0.8839	0.8858	0.8877	0.8895
-157.45						0.8776	0.8785	0.8805	0.8825	0.8844	0.8863	0.8882	0.8900
7.891						1.0014	1.0023	1.0046	1.0069	1.0091	1.0113	1.0134	1.0155
115.8						0.8766	0.8774	0.8794	0.8814	0.8834	0.8853	0.8872	0.8890
-157.35						0.8771	0.8779	0.8795	0.8819	0.8839	0.8858	0.8876	0.8895
7.940						1.0008	1.0017	1.0040	1.0063	1.0085	1.0107	1.0128	1.0149
115.9						0.8760	0.8769	0.8789	0.8809	0.8828	0.8848	0.8866	0.8885
-157.25						0.8765	0.8773	0.8794	0.8814	0.8833	0.8852	0.8871	0.8890
7.989						1.0001	1.0011	1.0034	1.0056	1.0079	1.0101	1.0122	1.0143

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM3

BAR KP/CM2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
116.0							0.8763	0.8783	0.8803	0.8823	0.8842	0.8861	0.8880
-157.15							0.8768	0.8788	0.8808	0.8828	0.8847	0.8866	0.8884
8.039							1.0004	1.0027	1.0050	1.0073	1.0095	1.0116	1.0137
116.1							0.8757	0.8778	0.8798	0.8818	0.8837	0.8856	0.8874
-157.05							0.8762	0.8783	0.8803	0.8822	0.8842	0.8861	0.8879
8.089							0.9998	1.0021	1.0044	1.0066	1.0088	1.0110	1.0131
116.2							0.8752	0.8772	0.8792	0.8812	0.8832	0.8851	0.8869
-156.95							0.8757	0.8777	0.8797	0.8817	0.8836	0.8855	0.8874
8.139							0.9991	1.0015	1.0038	1.0060	1.0082	1.0104	1.0125
116.3							0.8746	0.8767	0.8787	0.8807	0.8826	0.8845	0.8864
-156.85							0.8751	0.8772	0.8792	0.8812	0.8831	0.8850	0.8869
8.189							0.9985	1.0008	1.0032	1.0054	1.0076	1.0098	1.0119
116.4							0.8741	0.8761	0.8782	0.8801	0.8821	0.8840	0.8859
-156.75							0.8745	0.8766	0.8786	0.8806	0.8826	0.8845	0.8864
8.240							0.9978	1.0002	1.0025	1.0048	1.0070	1.0092	1.0113
116.5							0.8735	0.8756	0.8776	0.8796	0.8816	0.8835	0.8853
-156.65							0.8740	0.8760	0.8781	0.8801	0.8820	0.8840	0.8858
8.291							0.9972	0.9996	1.0019	1.0042	1.0064	1.0086	1.0107
116.6							0.8729	0.8750	0.8771	0.8791	0.8810	0.8829	0.8848
-156.55							0.8734	0.8755	0.8775	0.8795	0.8815	0.8834	0.8853
8.342							0.9966	0.9989	1.0013	1.0036	1.0058	1.0080	1.0101
116.7							0.8724	0.8744	0.8765	0.8785	0.8805	0.8824	0.8843
-156.45							0.8728	0.8749	0.8770	0.8790	0.8810	0.8829	0.8848
8.393							0.9959	0.9983	1.0006	1.0029	1.0052	1.0074	1.0095
116.8							0.8718	0.8739	0.8759	0.8780	0.8799	0.8819	0.8838
-156.35							0.8723	0.8744	0.8764	0.8784	0.8804	0.8824	0.8843
8.445							0.9953	0.9977	1.0000	1.0023	1.0046	1.0068	1.0089
116.9							0.8712	0.8733	0.8754	0.8774	0.8794	0.8813	0.8833
-156.25							0.8717	0.8738	0.8759	0.8779	0.8799	0.8818	0.8837
8.496							0.9946	0.9970	0.9994	1.0017	1.0040	1.0062	1.0083
117.0							0.8706	0.8728	0.8748	0.8769	0.8789	0.8808	0.8827
-156.15							0.8711	0.8732	0.8753	0.8774	0.8793	0.8813	0.8832
8.548							0.9940	0.9964	0.9987	1.0011	1.0033	1.0056	1.0077
117.1							0.8701	0.8722	0.8743	0.8763	0.8783	0.8803	0.8822
-156.05							0.8706	0.8727	0.8748	0.8768	0.8788	0.8808	0.8827
8.600							0.9933	0.9957	0.9981	1.0004	1.0027	1.0050	1.0071
117.2							0.8695	0.8716	0.8737	0.8758	0.8778	0.8797	0.8817
-155.95							0.8700	0.8721	0.8742	0.8763	0.8783	0.8802	0.8822
8.653							0.9926	0.9951	0.9975	0.9998	1.0021	1.0043	1.0065
117.3							0.8689	0.8711	0.8732	0.8752	0.8772	0.8792	0.8811
-155.85							0.8694	0.8716	0.8737	0.8757	0.8777	0.8797	0.8816
8.705							0.9920	0.9944	0.9968	0.9992	1.0015	1.0037	1.0059
117.4							0.8684	0.8705	0.8726	0.8747	0.8767	0.8787	0.8806
-155.75							0.8688	0.8710	0.8731	0.8752	0.8772	0.8792	0.8811
8.758							0.9913	0.9938	0.9962	0.9986	1.0009	1.0031	1.0053
117.5							0.8678	0.8699	0.8721	0.8741	0.8762	0.8781	0.8801
-155.65							0.8683	0.8704	0.8725	0.8746	0.8766	0.8786	0.8806
8.811							0.9907	0.9932	0.9956	0.9979	1.0002	1.0025	1.0047
117.6							0.8672	0.8694	0.8715	0.8736	0.8756	0.8776	0.8796
-155.55							0.8677	0.8699	0.8720	0.8741	0.8761	0.8781	0.8800
8.865							0.9900	0.9925	0.9949	0.9973	0.9996	1.0019	1.0041
117.7							0.8666	0.8688	0.8709	0.8730	0.8751	0.8771	0.8790
-155.45							0.8671	0.8693	0.8714	0.8735	0.8755	0.8776	0.8795
8.918							0.9894	0.9919	0.9943	0.9967	0.9990	1.0013	1.0035
117.8							0.8661	0.8682	0.8704	0.8725	0.8745	0.8765	0.8785
-155.35							0.8665	0.8687	0.8709	0.8730	0.8750	0.8770	0.8790
8.972							0.9887	0.9912	0.9937	0.9960	0.9984	1.0007	1.0029
117.9							0.8655	0.8677	0.8698	0.8719	0.8740	0.8760	0.8780
-155.25							0.8659	0.8681	0.8703	0.8724	0.8745	0.8765	0.8784
9.026							0.9880	0.9906	0.9930	0.9954	0.9978	1.0001	1.0023

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM3

BAR	0.000	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KF/CM2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
118.0							0.8649	0.8671	0.8693	0.8714	0.8734	0.8755	0.8774
-155.15							0.8654	0.8676	0.8697	0.8718	0.8739	0.8759	0.8779
9.080							0.9874	0.9899	0.9924	0.9948	0.9971	0.9994	1.0017
118.1							0.8643	0.8665	0.8687	0.8708	0.8729	0.8749	0.8769
-155.05							0.8648	0.8670	0.8692	0.8713	0.8734	0.8754	0.8774
9.135							0.9867	0.9892	0.9917	0.9941	0.9965	0.9988	1.0011
118.2							0.8637	0.8660	0.8681	0.8703	0.8723	0.8744	0.8764
-154.95							0.8642	0.8664	0.8686	0.8707	0.8728	0.8749	0.8768
9.189							0.9861	0.9886	0.9911	0.9935	0.9959	0.9982	1.0005
118.3							0.8631	0.8654	0.8676	0.8697	0.8718	0.8738	0.8758
-154.85							0.8636	0.8659	0.8680	0.8702	0.8723	0.8743	0.8763
9.244							0.9854	0.9879	0.9904	0.9929	0.9953	0.9976	0.9999
118.4							0.8626	0.8648	0.8670	0.8691	0.8712	0.8733	0.8753
-154.75							0.8630	0.8653	0.8675	0.8696	0.8717	0.8738	0.8758
9.299							0.9847	0.9873	0.9898	0.9922	0.9946	0.9970	0.9993
118.5							0.8620	0.8642	0.8664	0.8686	0.8707	0.8727	0.8748
-154.65							0.8624	0.8647	0.8669	0.8691	0.8712	0.8732	0.8752
9.355							0.9841	0.9866	0.9891	0.9916	0.9940	0.9964	0.9987
118.6							0.8614	0.8637	0.8659	0.8680	0.8701	0.8722	0.8742
-154.55							0.8619	0.8641	0.8663	0.8685	0.8706	0.8727	0.8747
9.411							0.9834	0.9860	0.9885	0.9910	0.9934	0.9957	0.9980
118.7							0.8608	0.8631	0.8653	0.8675	0.8696	0.8717	0.8737
-154.45							0.8613	0.8635	0.8658	0.8679	0.8701	0.8721	0.8742
9.466							0.9827	0.9853	0.9878	0.9903	0.9927	0.9951	0.9974
118.8							0.8602	0.8625	0.8647	0.8669	0.8690	0.8711	0.8731
-154.35							0.8607	0.8630	0.8652	0.8674	0.8695	0.8716	0.8736
9.523							0.9820	0.9846	0.9872	0.9897	0.9921	0.9945	0.9968
118.9							0.8596	0.8619	0.8642	0.8663	0.8685	0.8706	0.8726
-154.25							0.8601	0.8624	0.8646	0.8668	0.8689	0.8710	0.8731
9.579							0.9814	0.9840	0.9865	0.9890	0.9915	0.9939	0.9962
119.0							0.8590	0.8613	0.8636	0.8658	0.8679	0.8700	0.8721
-154.15							0.8595	0.8618	0.8641	0.8662	0.8684	0.8705	0.8725
9.636							0.9807	0.9833	0.9859	0.9884	0.9908	0.9932	0.9956
119.1							0.8584	0.8608	0.8630	0.8652	0.8674	0.8695	0.8715
-154.05							0.8589	0.8612	0.8635	0.8657	0.8678	0.8699	0.8720
9.693							0.9800	0.9827	0.9852	0.9877	0.9902	0.9926	0.9950
119.2							0.8578	0.8602	0.8624	0.8646	0.8668	0.8689	0.8710
-153.95							0.8583	0.8606	0.8629	0.8651	0.8673	0.8694	0.8715
9.750							0.9793	0.9820	0.9846	0.9871	0.9896	0.9920	0.9943
119.3							0.8573	0.8596	0.8619	0.8641	0.8662	0.8684	0.8704
-153.85							0.8577	0.8601	0.8623	0.8645	0.8667	0.8688	0.8709
9.807							0.9787	0.9813	0.9839	0.9865	0.9889	0.9914	0.9937
119.4							0.8567	0.8590	0.8613	0.8635	0.8657	0.8678	0.8698
-153.75							0.8571	0.8595	0.8618	0.8640	0.8662	0.8683	0.8704
9.865							0.9780	0.9807	0.9833	0.9858	0.9883	0.9907	0.9931
119.5							0.8561	0.8584	0.8607	0.8629	0.8651	0.8673	0.8694
-153.65							0.8565	0.8589	0.8612	0.8634	0.8656	0.8677	0.8698
9.922							0.9773	0.9800	0.9826	0.9852	0.9877	0.9901	0.9925
119.6							0.8555	0.8578	0.8601	0.8624	0.8646	0.8667	0.8688
-153.55							0.8559	0.8583	0.8606	0.8628	0.8650	0.8672	0.8693
9.981							0.9766	0.9793	0.9819	0.9845	0.9870	0.9895	0.9919
119.7								0.8572	0.8595	0.8618	0.8640	0.8662	0.8683
-153.45								0.8577	0.8600	0.8623	0.8645	0.8666	0.8687
10.039								0.9786	0.9813	0.9839	0.9864	0.9888	0.9912
119.8								0.8566	0.8590	0.8612	0.8634	0.8656	0.8677
-153.35								0.8571	0.8594	0.8617	0.8639	0.8661	0.8682
10.097								0.9780	0.9806	0.9832	0.9857	0.9882	0.9906
119.9								0.8561	0.8584	0.8607	0.8629	0.8650	0.8672
-153.25								0.8565	0.8589	0.8611	0.8634	0.8655	0.8676
10.156								0.9773	0.9800	0.9826	0.9851	0.9876	0.9900

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
120.0 -153.15 10.215								0.8555 0.8559 0.9766	0.8578 0.8583 0.9793	0.8601 0.8606 0.9819	0.8623 0.8628 0.9844	0.8645 0.8650 0.9869	0.8666 0.8671 0.9894
120.1 -153.05 10.275								0.8549 0.8553 0.9759	0.8572 0.8577 0.9786	0.8595 0.8600 0.9812	0.8617 0.8622 0.9838	0.8639 0.8644 0.9863	0.8661 0.8665 0.9887
120.2 -152.95 10.334								0.8543 0.8547 0.9753	0.8566 0.8571 0.9780	0.8589 0.8594 0.9806	0.8612 0.8617 0.9832	0.8634 0.8639 0.9857	0.8655 0.8660 0.9881
120.3 -152.85 10.394								0.8537 0.8541 0.9746	0.8560 0.8565 0.9773	0.8584 0.8588 0.9799	0.8606 0.8611 0.9825	0.8628 0.8633 0.9850	0.8650 0.8654 0.9875
120.4 -152.75 10.454								0.8531 0.8535 0.9739	0.8555 0.8559 0.9766	0.8578 0.8583 0.9793	0.8600 0.8605 0.9819	0.8623 0.8627 0.9844	0.8644 0.8649 0.9868
120.5 -152.65 10.514								0.8525 0.8529 0.9732	0.8548 0.8553 0.9759	0.8572 0.8577 0.9786	0.8595 0.8599 0.9812	0.8617 0.8622 0.9837	0.8639 0.8643 0.9862
120.6 -152.55 10.575								0.8519 0.8523 0.9725	0.8543 0.8548 0.9753	0.8566 0.8571 0.9779	0.8589 0.8594 0.9806	0.8611 0.8616 0.9831	0.8633 0.8638 0.9856
120.7 -152.45 10.636								0.8513 0.8517 0.9718	0.8537 0.8542 0.9746	0.8560 0.8565 0.9773	0.8583 0.8588 0.9799	0.8606 0.8610 0.9825	0.8628 0.8632 0.9850
120.8 -152.35 10.697								0.8507 0.8511 0.9712	0.8531 0.8536 0.9739	0.8555 0.8559 0.9766	0.8578 0.8582 0.9793	0.8600 0.8605 0.9818	0.8622 0.8627 0.9843
120.9 -152.25 10.758								0.8501 0.8505 0.9705	0.8525 0.8530 0.9733	0.8549 0.8553 0.9760	0.8572 0.8577 0.9786	0.8594 0.8599 0.9812	0.8617 0.8621 0.9837
121.0 -152.15 10.820								0.8495 0.8499 0.9698	0.8519 0.8524 0.9726	0.8543 0.8548 0.9753	0.8566 0.8571 0.9779	0.8589 0.8594 0.9805	0.8611 0.8616 0.9831
121.1 -152.05 10.882								0.8489 0.8493 0.9691	0.8513 0.8518 0.9719	0.8537 0.8542 0.9746	0.8560 0.8565 0.9773	0.8583 0.8588 0.9799	0.8605 0.8610 0.9824
121.2 -151.95 10.944								0.8483 0.8487 0.9684	0.8507 0.8512 0.9712	0.8531 0.8536 0.9740	0.8555 0.8559 0.9766	0.8578 0.8582 0.9792	0.8600 0.8604 0.9818
121.3 -151.85 11.006								0.8477 0.8481 0.9677	0.8501 0.8506 0.9705	0.8525 0.8530 0.9733	0.8549 0.8554 0.9760	0.8572 0.8577 0.9786	0.8594 0.8599 0.9811
121.4 -151.75 11.069								0.8470 0.8475 0.9670	0.8495 0.8500 0.9699	0.8520 0.8524 0.9726	0.8543 0.8548 0.9753	0.8566 0.8571 0.9779	0.8589 0.8593 0.9805
121.5 -151.65 11.132								0.8464 0.8469 0.9663	0.8489 0.8494 0.9692	0.8514 0.8518 0.9719	0.8537 0.8542 0.9746	0.8560 0.8565 0.9773	0.8583 0.8588 0.9799
121.6 -151.55 11.195								0.8458 0.8463 0.9656	0.8483 0.8488 0.9685	0.8508 0.8512 0.9713	0.8532 0.8536 0.9740	0.8555 0.8559 0.9766	0.8577 0.8582 0.9792
121.7 -151.45 11.258								0.8452 0.8457 0.9649	0.8477 0.8482 0.9678	0.8502 0.8506 0.9706	0.8526 0.8530 0.9733	0.8549 0.8554 0.9760	0.8572 0.8576 0.9786
121.8 -151.35 11.322								0.8446 0.8451 0.9642	0.8471 0.8476 0.9671	0.8496 0.8501 0.9699	0.8520 0.8525 0.9727	0.8543 0.8548 0.9753	0.8566 0.8571 0.9779
121.9 -151.25 11.386								0.8440 0.8444 0.9635	0.8465 0.8470 0.9664	0.8490 0.8495 0.9692	0.8514 0.8519 0.9720	0.8538 0.8542 0.9747	0.8560 0.8565 0.9773

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
122.0								0.8434	0.8459	0.8484	0.8508	0.8532	0.8555
-151.15								0.8438	0.8464	0.8489	0.8513	0.8536	0.8559
11.450								0.9628	0.9657	0.9686	0.9713	0.9740	0.9766
122.1								0.8427	0.8453	0.8478	0.8502	0.8526	0.8549
-151.05								0.8432	0.8458	0.8483	0.8507	0.8531	0.8554
11.514								0.9621	0.9650	0.9679	0.9707	0.9734	0.9760
122.2								0.8421	0.8447	0.8472	0.8497	0.8520	0.8543
-150.95								0.8426	0.8452	0.8477	0.8501	0.8525	0.8548
11.579								0.9614	0.9643	0.9672	0.9700	0.9727	0.9753
122.3								0.8415	0.8441	0.8466	0.8491	0.8515	0.8538
-150.85								0.8420	0.8446	0.8471	0.8495	0.8519	0.8542
11.644								0.9607	0.9636	0.9665	0.9693	0.9720	0.9747
122.4								0.8409	0.8435	0.8460	0.8485	0.8509	0.8532
-150.75								0.8413	0.8439	0.8465	0.8489	0.8513	0.8537
11.709								0.9600	0.9629	0.9658	0.9686	0.9714	0.9740
122.5								0.8403	0.8429	0.8454	0.8479	0.8503	0.8526
-150.65								0.8407	0.8433	0.8459	0.8484	0.8508	0.8531
11.774								0.9593	0.9623	0.9652	0.9680	0.9707	0.9734
122.6								0.8396	0.8423	0.8448	0.8473	0.8497	0.8521
-150.55								0.8401	0.8427	0.8453	0.8478	0.8502	0.8525
11.840								0.9586	0.9616	0.9645	0.9673	0.9701	0.9727
122.7								0.8390	0.8416	0.8442	0.8467	0.8491	0.8515
-150.45								0.8395	0.8421	0.8447	0.8472	0.8496	0.8520
11.906								0.9578	0.9609	0.9638	0.9666	0.9694	0.9721
122.8								0.8384	0.8410	0.8436	0.8461	0.8485	0.8509
-150.35								0.8388	0.8415	0.8441	0.8466	0.8490	0.8514
11.972								0.9571	0.9601	0.9631	0.9659	0.9687	0.9714
122.9								0.8378	0.8404	0.8430	0.8455	0.8480	0.8503
-150.25								0.8382	0.8409	0.8435	0.8460	0.8484	0.8508
12.039								0.9564	0.9594	0.9624	0.9653	0.9681	0.9708
123.0								0.8371	0.8398	0.8424	0.8449	0.8474	0.8498
-150.15								0.8376	0.8403	0.8429	0.8454	0.8478	0.8502
12.106								0.9557	0.9587	0.9617	0.9646	0.9674	0.9701
123.1								0.8365	0.8392	0.8418	0.8443	0.8468	0.8492
-150.05								0.8369	0.8396	0.8422	0.8448	0.8473	0.8497
12.173								0.9550	0.9580	0.9610	0.9639	0.9667	0.9695
123.2								0.8359	0.8386	0.8412	0.8437	0.8462	0.8486
-149.95								0.8363	0.8390	0.8416	0.8442	0.8467	0.8491
12.240								0.9542	0.9573	0.9603	0.9632	0.9661	0.9688
123.3								0.8352	0.8379	0.8406	0.8431	0.8456	0.8480
-149.85								0.8357	0.8384	0.8410	0.8436	0.8461	0.8485
12.308								0.9535	0.9566	0.9596	0.9625	0.9654	0.9681
123.4								0.8346	0.8373	0.8400	0.8425	0.8450	0.8475
-149.75								0.8350	0.8378	0.8404	0.8430	0.8455	0.8479
12.375								0.9528	0.9559	0.9589	0.9619	0.9647	0.9675
123.5								0.8339	0.8367	0.8393	0.8419	0.8444	0.8469
-149.65								0.8344	0.8371	0.8398	0.8424	0.8449	0.8473
12.443								0.9521	0.9552	0.9582	0.9612	0.9640	0.9668
123.6								0.8333	0.8361	0.8387	0.8413	0.8438	0.8463
-149.55								0.8338	0.8365	0.8392	0.8418	0.8443	0.8468
12.512								0.9513	0.9545	0.9575	0.9605	0.9634	0.9662
123.7								0.8327	0.8354	0.8381	0.8407	0.8433	0.8457
-149.45								0.8331	0.8359	0.8386	0.8412	0.8437	0.8462
12.581								0.9506	0.9538	0.9568	0.9598	0.9627	0.9655
123.8								0.8320	0.8348	0.8375	0.8401	0.8427	0.8451
-149.35								0.8325	0.8353	0.8380	0.8406	0.8431	0.8456
12.649								0.9498	0.9530	0.9561	0.9591	0.9620	0.9648
123.9								0.8314	0.8342	0.8369	0.8395	0.8421	0.8446
-149.25								0.8318	0.8346	0.8373	0.8400	0.8425	0.8450
12.719								0.9491	0.9523	0.9554	0.9584	0.9613	0.9642

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
124.0								0.8307	0.8335	0.8363	0.8389	0.8415	0.8440
-149.15								0.8312	0.8340	0.8367	0.8394	0.8419	0.8444
12.788								0.9484	0.9516	0.9547	0.9577	0.9606	0.9635
125.0								0.8242	0.8272	0.8300	0.8328	0.8354	0.8381
-148.15								0.8246	0.8276	0.8305	0.8332	0.8359	0.8385
13.498								0.9409	0.9443	0.9476	0.9507	0.9538	0.9567
126.0								0.8175	0.8206	0.8236	0.8265	0.8293	0.8320
-147.15								0.8179	0.8210	0.8241	0.8270	0.8298	0.8325
14.236								0.9333	0.9368	0.9402	0.9436	0.9468	0.9499
127.0									0.8139	0.8170	0.8201	0.8230	0.8259
-146.15									0.8143	0.8175	0.8205	0.8235	0.8263
15.002									0.9291	0.9328	0.9362	0.9396	0.9428
128.0									0.8070	0.8103	0.8135	0.8166	0.8196
-145.15									0.8074	0.8108	0.8140	0.8171	0.8201
15.797									0.9213	0.9251	0.9287	0.9323	0.9357
129.0									0.7999	0.8034	0.8067	0.8099	0.8130
-144.15									0.8004	0.8038	0.8071	0.8103	0.8135
16.622									0.9132	0.9172	0.9209	0.9246	0.9282
130.0									0.7925	0.7962	0.7998	0.8032	0.8064
-143.15									0.7930	0.7967	0.8002	0.8036	0.8069
17.478									0.9048	0.9090	0.9130	0.9169	0.9207
131.0									0.7851	0.7890	0.7927	0.7963	0.7997
-142.15									0.7855	0.7894	0.7931	0.7967	0.8002
18.365									0.8963	0.9007	0.9049	0.9091	0.9130
132.0									0.7772	0.7814	0.7854	0.7892	0.7928
-141.15									0.7776	0.7818	0.7858	0.7896	0.7933
19.283									0.8873	0.8921	0.8966	0.9009	0.9051
133.0										0.7737	0.7779	0.7819	0.7858
-140.15										0.7741	0.7783	0.7824	0.7862
20.235										0.8833	0.8881	0.8927	0.8971
134.0										0.7656	0.7701	0.7745	0.7786
-139.15										0.7660	0.7706	0.7749	0.7790
21.219										0.8740	0.8792	0.8841	0.8888
135.0										0.7572	0.7620	0.7667	0.7710
-138.15										0.7576	0.7625	0.7671	0.7715
22.237										0.8644	0.8700	0.8753	0.8803
136.0										0.7483	0.7536	0.7586	0.7633
-137.15										0.7487	0.7541	0.7590	0.7637
23.291										0.8543	0.8604	0.8661	0.8714
137.0										0.7390	0.7449	0.7503	0.7553
-136.15										0.7394	0.7453	0.7507	0.7557
24.379										0.8437	0.8504	0.8565	0.8622
138.0											0.7357	0.7415	0.7470
-135.15											0.7361	0.7419	0.7474
25.504											0.8399	0.8466	0.8527
139.0											0.7259	0.7324	0.7383
-134.15											0.7263	0.7328	0.7387
26.666											0.8287	0.8361	0.8429
140.0											0.7157	0.7228	0.7292
-133.15											0.7161	0.7232	0.7296
27.866											0.8170	0.8252	0.8325
141.0											0.7045	0.7126	0.7197
-132.15											0.7049	0.7130	0.7201
29.104											0.8043	0.8135	0.8216
142.0												0.7018	0.7097
-131.15												0.7021	0.7101
30.383												0.8012	0.8102
143.0												0.6895	0.6989
-130.15												0.6903	0.6993
31.702												0.7876	0.7979

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
144.0												0.6772	0.6875
-129.15												0.6776	0.6879
33.064												0.7731	0.7849
145.0												0.6627	0.6749
-128.15												0.6631	0.6753
34.468												0.7565	0.7705
146.0													0.6612
-127.15													0.6615
35.918													0.7548
147.0													0.6456
-126.15													0.6459
37.413													0.7370
148.0													0.6277
-125.15													0.6280
38.955													0.7166

7. NITROGEN

The data tabulated for nitrogen are based on the paper by Strobridge (1962). The saturated liquid values were calculated by solving simultaneously the vapor pressure equation and the equation of state. First the vapor pressure equation was solved for either pressure or temperature depending on the integral value desired, then using the resulting P and T, the equation of state was solved for the corresponding density. All of the tabulated values were obtained in this manner except the critical point. At the critical point the vapor pressure equation was used to calculate the pressure from an input temperature of 126.26 K but the density was calculated using the theory of rectilinear diameters and the saturation densities tabulated by Strobridge.

Values near room temperature are given in table 5, uncertainties for the data in table 6, values for the saturated liquid are given in table 7, and values for the compressed liquid are shown in table 8. Near the critical point, the deviations between calculated and

Table 5

Density of Nitrogen Near Atmospheric Pressure and Room Temperature

Temperature	Pressure	Density		Volume	
		gram-mole/cm^3	kg/dm^3	cm^3/gram-mole	dm^3/kg
0° C	1 bar	4.4051×10^{-5}	1.2341×10^{-3}	22701.	810.28
	760 torr	4.4635×10^{-5}	1.2505×10^{-3}	22404.	799.68
15° C	1 bar	4.1752×10^{-5}	1.1697×10^{-3}	23951.	854.91
	760 torr	4.2305×10^{-5}	1.1852×10^{-3}	23638.	843.73
Density Ratios - Dimensionless					
Liquid Density at a boiling pressure of 1 bar* /density at 1 bar and 0° C					654.63
Liquid Density at a boiling pressure of 1 bar/density at 1 bar and 15° C					690.70
Liquid Density at a boiling pressure of 760 torr† /density at 760 torr and 0° C					645.67
Liquid Density at a boiling pressure of 760 torr/density at 760 torr and 15° C					681.23

* Liquid density at a boiling pressure of 1 bar 0.8079 kg/dm^3

† Liquid density at a boiling pressure of 760 torr 0.8074 kg/dm^3

experimental data range from 0.2% at 125 K to 5% at 126 K. The critical density given in table 7 is uncertain by 5% as well. The value of the density at the boiling point at 760 torr in table 7 should be the same as in the CGA pamphlet P-6, yet they differ by 0.1%. This is surprising as the source has not changed, and we can only suspect an error in the printing of the pamphlet.

Table 6

Uncertainties in the Data for Nitrogen

variable	uncertainty	range of temperature
temperature	0.5%	64 to 72 K
	0.1%	72 to 125 K
	0.015 K	room temperature
volume	0.4%	up to 125 K
	increases to 5%	at 126 K
	0.01%	room temperature
pressure	1%	64 to 72 K
	0.1%	72 to 126 K
	0.01%	room temperature

TABLE 7

SATURATED LIQUID NITROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
0.125	0.127	83.150	-210.000	0.030998	0.8684	32.260	1.1515	1.0749	1.0756
0.146	0.149	84.000	-209.150	0.030877	0.8650	32.387	1.1560	1.0707	1.0714
0.150	0.153	84.150	-209.000	0.030855	0.8644	32.409	1.1568	1.0700	1.0707
0.174	0.177	85.000	-208.150	0.030733	0.8610	32.538	1.1614	1.0657	1.0664
0.178	0.182	85.150	-208.000	0.030711	0.8604	32.561	1.1622	1.0650	1.0656
0.200	0.204	85.820	-207.330	0.030613	0.8577	32.665	1.1660	1.0616	1.0623
0.206	0.210	86.000	-207.150	0.030587	0.8569	32.694	1.1670	1.0607	1.0613
0.211	0.215	86.150	-207.000	0.030565	0.8563	32.717	1.1678	1.0599	1.0606
0.243	0.248	87.000	-206.150	0.030439	0.8526	32.852	1.1726	1.0555	1.0562
0.249	0.254	87.150	-206.000	0.030417	0.8522	32.876	1.1735	1.0548	1.0554
0.285	0.290	88.000	-205.150	0.030290	0.8486	33.014	1.1784	1.0504	1.0510
0.291	0.297	88.150	-205.000	0.030268	0.8480	33.039	1.1793	1.0496	1.0503
0.332	0.339	89.000	-204.150	0.030139	0.8444	33.179	1.1843	1.0451	1.0458
0.340	0.346	89.150	-204.000	0.030117	0.8437	33.204	1.1852	1.0444	1.0450
0.385	0.393	90.000	-203.150	0.029987	0.8401	33.348	1.1903	1.0399	1.0405
0.394	0.402	90.150	-203.000	0.029964	0.8395	33.373	1.1912	1.0391	1.0397
0.400	0.408	90.256	-202.894	0.029948	0.8390	33.392	1.1919	1.0385	1.0392
0.445	0.454	91.000	-202.150	0.029833	0.8358	33.520	1.1965	1.0345	1.0352
0.455	0.464	91.150	-202.000	0.029810	0.8352	33.546	1.1974	1.0337	1.0344
0.512	0.522	92.000	-201.150	0.029678	0.8314	33.695	1.2027	1.0291	1.0298
0.523	0.533	92.150	-201.000	0.029654	0.8308	33.722	1.2037	1.0283	1.0290
0.586	0.598	93.000	-200.150	0.029521	0.8271	33.874	1.2091	1.0237	1.0243
0.598	0.610	93.150	-200.000	0.029497	0.8264	33.902	1.2101	1.0229	1.0235
0.600	0.612	93.174	-199.976	0.029493	0.8263	33.906	1.2102	1.0227	1.0234
0.669	0.682	94.000	-199.150	0.029363	0.8226	34.057	1.2156	1.0182	1.0188
0.682	0.695	94.150	-199.000	0.029339	0.8220	34.085	1.2166	1.0174	1.0180
0.760	0.775	95.000	-198.150	0.029203	0.8181	34.243	1.2223	1.0127	1.0133
0.774	0.790	95.150	-198.000	0.029179	0.8175	34.272	1.2233	1.0118	1.0125
0.800	0.816	95.411	-197.739	0.029137	0.8163	34.321	1.2251	1.0104	1.0110
0.860	0.877	96.000	-197.150	0.029042	0.8136	34.433	1.2291	1.0071	1.0077
0.876	0.893	96.150	-197.000	0.029017	0.8129	34.462	1.2301	1.0062	1.0069
0.971	0.990	97.000	-196.150	0.028879	0.8091	34.627	1.2360	1.0014	1.0021
0.981	1.000	97.087	-196.063	0.028865	0.8087	34.644	1.2366	1.0009	1.0016
0.988	1.007	97.150	-196.000	0.028854	0.8084	34.657	1.2370	1.0006	1.0012
1.000	1.020	97.252	-195.898	0.028838	0.8079	34.677	1.2378	1.0000	1.0006
1.013	1.033	97.364	-195.786	0.028819	0.8074	34.699	1.2385	0.9994	1.0000
1.091	1.113	98.000	-195.150	0.028715	0.8045	34.825	1.2430	0.9957	0.9964
1.110	1.132	98.150	-195.000	0.028690	0.8038	34.855	1.2441	0.9949	0.9955
1.200	1.224	98.831	-194.319	0.028577	0.8006	34.993	1.2490	0.9910	0.9916
1.223	1.247	99.000	-194.150	0.028549	0.7998	35.027	1.2503	0.9900	0.9906

TABLE 7 CONTINUED

SATURATED LIQUID NITROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
1.244	1.268	79.150	-194.000	0.028524	0.7991	35.058	1.2514	0.9391	0.9898
1.367	1.394	80.000	-193.150	0.028382	0.7952	35.234	1.2576	0.9342	0.9848
1.389	1.417	80.150	-193.000	0.028357	0.7944	35.265	1.2587	0.9333	0.9840
1.400	1.428	80.220	-192.930	0.028345	0.7941	35.279	1.2593	0.9329	0.9835
1.523	1.553	81.000	-192.150	0.028213	0.7904	35.444	1.2651	0.9784	0.9790
1.547	1.578	81.150	-192.000	0.028188	0.7897	35.476	1.2663	0.9775	0.9781
1.600	1.632	81.467	-191.683	0.028134	0.7882	35.544	1.2687	0.9756	0.9762
1.692	1.725	82.000	-191.150	0.028043	0.7857	35.659	1.2728	0.9724	0.9731
1.718	1.752	82.150	-191.000	0.028017	0.7849	35.692	1.2740	0.9716	0.9722
1.800	1.835	82.601	-190.549	0.027940	0.7828	35.791	1.2775	0.9689	0.9695
1.875	1.912	83.000	-190.150	0.027871	0.7808	35.879	1.2807	0.9665	0.9671
1.903	1.941	83.150	-190.000	0.027845	0.7801	35.913	1.2819	0.9656	0.9662
1.961	2.000	83.449	-189.701	0.027793	0.7787	35.980	1.2843	0.9638	0.9644
2.000	2.039	83.644	-189.506	0.027759	0.7777	36.024	1.2858	0.9626	0.9632
2.072	2.113	84.000	-189.150	0.027697	0.7760	36.104	1.2887	0.9605	0.9611
2.103	2.144	84.150	-189.000	0.027671	0.7752	36.139	1.2899	0.9596	0.9602
2.200	2.243	84.612	-188.538	0.027590	0.7730	36.245	1.2937	0.9567	0.9574
2.284	2.329	85.000	-188.150	0.027522	0.7711	36.334	1.2969	0.9544	0.9550
2.317	2.363	85.150	-188.000	0.027496	0.7703	36.369	1.2982	0.9535	0.9541
2.400	2.447	85.516	-187.634	0.027431	0.7685	36.455	1.3012	0.9512	0.9518
2.512	2.562	86.000	-187.150	0.027345	0.7661	36.570	1.3053	0.9482	0.9488
2.548	2.598	86.150	-187.000	0.027318	0.7653	36.606	1.3066	0.9473	0.9479
2.600	2.651	86.366	-186.784	0.027280	0.7643	36.658	1.3085	0.9460	0.9466
2.757	2.811	87.000	-186.150	0.027166	0.7611	36.811	1.3139	0.9420	0.9426
2.795	2.850	87.150	-186.000	0.027139	0.7603	36.848	1.3152	0.9411	0.9417
2.800	2.855	87.168	-185.982	0.027135	0.7602	36.852	1.3154	0.9410	0.9416
2.942	3.000	87.713	-185.437	0.027037	0.7575	36.987	1.3202	0.9376	0.9381
3.000	3.059	87.929	-185.221	0.026997	0.7564	37.041	1.3221	0.9362	0.9368
3.019	3.079	88.000	-185.150	0.026985	0.7560	37.058	1.3228	0.9357	0.9363
3.060	3.120	88.150	-185.000	0.026957	0.7552	37.096	1.3241	0.9348	0.9354
3.200	3.263	88.654	-184.496	0.026865	0.7527	37.223	1.3286	0.9316	0.9322
3.299	3.364	89.000	-184.150	0.026801	0.7509	37.311	1.3318	0.9294	0.9300
3.343	3.408	89.150	-184.000	0.026774	0.7501	37.350	1.3332	0.9284	0.9290
3.400	3.467	89.346	-183.804	0.026738	0.7491	37.400	1.3350	0.9272	0.9278
3.598	3.669	90.000	-183.150	0.026616	0.7457	37.571	1.3411	0.9230	0.9235
3.600	3.671	90.008	-183.142	0.026615	0.7456	37.573	1.3411	0.9229	0.9235
3.644	3.716	90.150	-183.000	0.026588	0.7449	37.611	1.3425	0.9220	0.9226
3.800	3.875	90.644	-182.506	0.026496	0.7423	37.742	1.3472	0.9188	0.9194
3.916	3.993	91.000	-182.150	0.026428	0.7404	37.833	1.3506	0.9165	0.9170
3.923	4.000	91.021	-182.129	0.026424	0.7403	37.844	1.3508	0.9163	0.9169
3.965	4.043	91.150	-182.000	0.026400	0.7396	37.879	1.3520	0.9155	0.9161
4.000	4.079	91.255	-181.895	0.026380	0.7391	37.907	1.3531	0.9148	0.9154
4.200	4.283	91.845	-181.305	0.026268	0.7359	38.069	1.3588	0.9109	0.9115
4.254	4.338	92.000	-181.150	0.026238	0.7351	38.112	1.3604	0.9099	0.9104
4.306	4.391	92.150	-181.000	0.026210	0.7343	38.154	1.3619	0.9089	0.9095

TABLE 7 CONTINUED

SATURATED LIQUID NITROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
4.400	4.487	92.414	-180.736	0.026159	0.7329	38.228	1.3645	0.9071	0.9077
4.600	4.691	92.965	-180.185	0.026053	0.7299	38.383	1.3701	0.9034	0.9040
4.613	4.704	93.000	-180.150	0.026046	0.7297	38.394	1.3704	0.9032	0.9038
4.669	4.761	93.150	-180.000	0.026017	0.7289	38.437	1.3719	0.9022	0.9028
4.800	4.895	93.498	-179.652	0.025949	0.7270	38.537	1.3755	0.8998	0.9004
4.903	5.000	93.767	-179.383	0.025897	0.7255	38.615	1.3783	0.8980	0.8986
4.994	5.092	94.000	-179.150	0.025851	0.7242	38.683	1.3808	0.8964	0.8970
5.000	5.099	94.015	-179.135	0.025848	0.7242	38.688	1.3809	0.8963	0.8969
5.053	5.153	94.150	-179.000	0.025821	0.7234	38.728	1.3823	0.8954	0.8960
5.200	5.303	94.518	-178.632	0.025749	0.7214	38.837	1.3862	0.8929	0.8935
5.397	5.504	95.000	-178.150	0.025653	0.7187	38.982	1.3914	0.8896	0.8901
5.400	5.506	95.006	-178.144	0.025652	0.7187	38.984	1.3915	0.8895	0.8901
5.460	5.567	95.150	-178.000	0.025623	0.7179	39.027	1.3930	0.8885	0.8891
5.600	5.710	95.482	-177.668	0.025557	0.7160	39.129	1.3967	0.8862	0.8868
5.800	5.914	95.945	-177.205	0.025463	0.7134	39.272	1.4018	0.8830	0.8835
5.824	5.939	96.000	-177.150	0.025452	0.7131	39.289	1.4024	0.8826	0.8832
5.884	6.000	96.137	-177.013	0.025425	0.7123	39.332	1.4039	0.8816	0.8822
5.890	6.006	96.150	-177.000	0.025422	0.7122	39.336	1.4041	0.8815	0.8821
6.000	6.118	96.397	-176.753	0.025372	0.7108	39.414	1.4068	0.8798	0.8804
6.200	6.322	96.838	-176.312	0.025281	0.7083	39.555	1.4119	0.8767	0.8772
6.274	6.398	97.000	-176.150	0.025248	0.7074	39.607	1.4137	0.8755	0.8761
6.344	6.469	97.150	-176.000	0.025217	0.7065	39.655	1.4154	0.8745	0.8750
6.400	6.526	97.269	-175.881	0.025193	0.7058	39.694	1.4168	0.8736	0.8742
6.600	6.730	97.691	-175.459	0.025105	0.7034	39.832	1.4218	0.8706	0.8711
6.750	6.883	98.000	-175.150	0.025041	0.7015	39.935	1.4254	0.8683	0.8689
6.800	6.934	98.103	-175.047	0.025020	0.7009	39.969	1.4266	0.8676	0.8682
6.823	6.958	98.150	-175.000	0.025010	0.7007	39.985	1.4272	0.8673	0.8678
6.865	7.000	98.234	-174.916	0.024992	0.7002	40.013	1.4282	0.8666	0.8672
7.000	7.138	98.506	-174.644	0.024935	0.6986	40.105	1.4315	0.8647	0.8652
7.200	7.342	98.901	-174.249	0.024851	0.6962	40.239	1.4363	0.8618	0.8623
7.251	7.394	99.000	-174.150	0.024830	0.6956	40.273	1.4375	0.8610	0.8616
7.328	7.472	99.150	-174.000	0.024798	0.6948	40.325	1.4394	0.8599	0.8605
7.400	7.546	99.289	-173.861	0.024769	0.6939	40.373	1.4411	0.8589	0.8594
7.600	7.750	99.668	-173.482	0.024687	0.6916	40.507	1.4458	0.8561	0.8566
7.778	7.931	100.000	-173.150	0.024616	0.6896	40.624	1.4500	0.8536	0.8541
7.800	7.954	100.041	-173.109	0.024607	0.6894	40.639	1.4506	0.8533	0.8538
7.845	8.000	100.125	-173.025	0.024589	0.6889	40.669	1.4516	0.8527	0.8532
7.859	8.014	100.150	-173.000	0.024583	0.6887	40.678	1.4520	0.8525	0.8530
8.000	8.158	100.407	-172.743	0.024527	0.6872	40.771	1.4553	0.8505	0.8511
8.200	8.362	100.766	-172.384	0.024449	0.6850	40.902	1.4599	0.8478	0.8483
8.332	8.496	101.000	-172.150	0.024397	0.6835	40.988	1.4630	0.8460	0.8466
8.400	8.566	101.119	-172.031	0.024371	0.6828	41.032	1.4646	0.8451	0.8456
8.418	8.584	101.150	-172.000	0.024364	0.6826	41.044	1.4650	0.8449	0.8454
8.600	8.770	101.466	-171.684	0.024294	0.6806	41.162	1.4692	0.8424	0.8430
8.800	8.974	101.808	-171.342	0.024218	0.6785	41.292	1.4739	0.8398	0.8403

TABLE 7 CONTINUED

SATURATED LIQUID NITROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
8.826	9.000	101.851	-171.299	0.024208	0.6782	41.309	1.4745	0.8395	0.8400
8.914	9.090	102.000	-171.150	0.024175	0.6773	41.366	1.4765	0.8383	0.8388
9.000	9.177	102.143	-171.007	0.024142	0.6764	41.421	1.4785	0.8372	0.8377
9.004	9.182	102.150	-171.000	0.024141	0.6763	41.424	1.4786	0.8371	0.8377
9.200	9.381	102.474	-170.676	0.024068	0.6743	41.550	1.4831	0.8346	0.8351
9.400	9.585	102.799	-170.351	0.023993	0.6722	41.678	1.4877	0.8320	0.8325
9.525	9.713	103.000	-170.150	0.023947	0.6709	41.758	1.4905	0.8304	0.8309
9.600	9.789	103.119	-170.031	0.023920	0.6701	41.806	1.4922	0.8295	0.8300
9.619	9.809	103.150	-170.000	0.023913	0.6699	41.818	1.4927	0.8292	0.8298
9.800	9.993	103.435	-169.715	0.023847	0.6681	41.934	1.4968	0.8269	0.8275
9.807	10.000	103.445	-169.705	0.023845	0.6680	41.938	1.4969	0.8269	0.8274
10.000	10.197	103.746	-169.404	0.023775	0.6661	42.062	1.5013	0.8244	0.8250
10.165	10.366	104.000	-169.150	0.023715	0.6644	42.167	1.5051	0.8224	0.8229
10.200	10.401	104.053	-169.097	0.023703	0.6641	42.189	1.5059	0.8219	0.8225
10.264	10.466	104.150	-169.000	0.023680	0.6634	42.230	1.5073	0.8211	0.8217
10.400	10.605	104.355	-168.795	0.023632	0.6621	42.316	1.5104	0.8195	0.8200
10.600	10.809	104.653	-168.497	0.023561	0.6601	42.443	1.5150	0.8170	0.8175
10.787	11.000	104.929	-168.221	0.023495	0.6582	42.563	1.5192	0.8147	0.8152
10.800	11.013	104.947	-168.203	0.023490	0.6581	42.571	1.5195	0.8146	0.8151
10.836	11.050	105.000	-168.150	0.023478	0.6578	42.593	1.5203	0.8141	0.8147
10.939	11.155	105.150	-168.000	0.023442	0.6567	42.659	1.5227	0.8129	0.8134
11.000	11.217	105.238	-167.912	0.023421	0.6561	42.698	1.5240	0.8122	0.8127
11.200	11.421	105.524	-167.626	0.023351	0.6542	42.825	1.5286	0.8097	0.8103
11.400	11.625	105.807	-167.343	0.023282	0.6523	42.952	1.5331	0.8073	0.8079
11.538	11.765	106.000	-167.150	0.023235	0.6509	43.039	1.5362	0.8057	0.8062
11.600	11.829	106.087	-167.063	0.023213	0.6503	43.079	1.5376	0.8050	0.8055
11.646	11.875	106.150	-167.000	0.023198	0.6499	43.108	1.5387	0.8044	0.8049
11.768	12.000	106.319	-166.831	0.023156	0.6487	43.186	1.5415	0.8030	0.8035
11.800	12.033	106.363	-166.787	0.023145	0.6484	43.206	1.5422	0.8026	0.8031
12.000	12.237	106.635	-166.515	0.023077	0.6465	43.333	1.5467	0.8002	0.8007
12.200	12.441	106.905	-166.245	0.023009	0.6446	43.461	1.5513	0.7979	0.7984
12.271	12.513	107.000	-166.150	0.022985	0.6440	43.506	1.5529	0.7971	0.7976
12.384	12.628	107.150	-166.000	0.022947	0.6429	43.579	1.5555	0.7957	0.7962
12.400	12.644	107.171	-165.979	0.022942	0.6427	43.588	1.5558	0.7956	0.7961
12.600	12.848	107.434	-165.716	0.022875	0.6409	43.716	1.5604	0.7932	0.7937
12.749	13.000	107.628	-165.522	0.022825	0.6395	43.811	1.5638	0.7915	0.7920
12.800	13.052	107.694	-165.456	0.022808	0.6390	43.844	1.5650	0.7909	0.7914
13.000	13.256	107.952	-165.198	0.022742	0.6371	43.972	1.5695	0.7886	0.7891
13.038	13.295	108.000	-165.150	0.022729	0.6368	43.996	1.5704	0.7882	0.7887
13.156	13.415	108.150	-165.000	0.022690	0.6357	44.072	1.5731	0.7868	0.7873
13.200	13.460	108.206	-164.944	0.022675	0.6353	44.100	1.5741	0.7863	0.7868
13.400	13.664	108.458	-164.692	0.022609	0.6334	44.229	1.5787	0.7840	0.7845
13.600	13.868	108.707	-164.443	0.022544	0.6316	44.358	1.5833	0.7817	0.7822
13.729	14.000	108.867	-164.283	0.022501	0.6304	44.442	1.5863	0.7803	0.7808
13.800	14.072	108.954	-164.196	0.022478	0.6297	44.488	1.5879	0.7795	0.7800

TABLE 7 CONTINUED

SATURATED LIQUID NITROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
13.838	14.111	109.000	-164.150	0.022466	0.6294	44.512	1.5888	0.7790	0.7795
13.961	14.236	109.150	-164.000	0.022426	0.6283	44.592	1.5917	0.7776	0.7781
14.000	14.276	109.198	-163.952	0.022413	0.6279	44.617	1.5926	0.7772	0.7777
14.200	14.480	109.439	-163.711	0.022348	0.6261	44.748	1.5972	0.7749	0.7754
14.400	14.684	109.678	-163.472	0.022283	0.6243	44.878	1.6019	0.7727	0.7732
14.600	14.888	109.915	-163.235	0.022218	0.6224	45.009	1.6066	0.7704	0.7709
14.672	14.961	110.000	-163.150	0.022194	0.6218	45.057	1.6082	0.7696	0.7701
14.710	15.000	110.044	-163.106	0.022182	0.6215	45.082	1.6091	0.7692	0.7697
14.800	15.092	110.150	-163.000	0.022153	0.6206	45.141	1.6113	0.7682	0.7687
14.800	15.092	110.150	-163.000	0.022153	0.6206	45.141	1.6113	0.7682	0.7687
15.000	15.296	110.382	-162.768	0.022088	0.6188	45.273	1.6160	0.7660	0.7664
15.200	15.500	110.612	-162.538	0.022024	0.6170	45.405	1.6207	0.7637	0.7642
15.400	15.704	110.840	-162.310	0.021959	0.6152	45.538	1.6254	0.7615	0.7620
15.542	15.848	111.000	-162.150	0.021914	0.6139	45.633	1.6288	0.7599	0.7604
15.600	15.908	111.065	-162.085	0.021895	0.6134	45.672	1.6302	0.7593	0.7597
15.676	15.985	111.150	-162.000	0.021871	0.6127	45.723	1.6320	0.7584	0.7589
15.691	16.000	111.167	-161.983	0.021866	0.6126	45.733	1.6324	0.7582	0.7587
15.800	16.112	111.289	-161.861	0.021831	0.6116	45.806	1.6350	0.7570	0.7575
16.000	16.315	111.510	-161.640	0.021767	0.6098	45.941	1.6398	0.7548	0.7553
16.200	16.519	111.730	-161.420	0.021703	0.6080	46.077	1.6447	0.7526	0.7531
16.400	16.723	111.948	-161.202	0.021639	0.6062	46.213	1.6495	0.7504	0.7508
16.448	16.772	112.000	-161.150	0.021624	0.6058	46.246	1.6507	0.7498	0.7503
16.587	16.914	112.150	-161.000	0.021579	0.6046	46.341	1.6541	0.7483	0.7488
16.600	16.927	112.164	-160.986	0.021575	0.6044	46.350	1.6544	0.7482	0.7486
16.671	17.000	112.240	-160.910	0.021552	0.6038	46.399	1.6562	0.7474	0.7478
16.800	17.131	112.378	-160.772	0.021511	0.6027	46.488	1.6593	0.7459	0.7464
17.000	17.335	112.590	-160.560	0.021447	0.6009	46.626	1.6643	0.7437	0.7442
17.200	17.533	112.800	-160.350	0.021383	0.5991	46.765	1.6692	0.7415	0.7420
17.392	17.734	113.000	-160.150	0.021322	0.5974	46.900	1.6740	0.7394	0.7399
17.400	17.743	113.009	-160.141	0.021319	0.5973	46.905	1.6742	0.7393	0.7398
17.536	17.882	113.150	-160.000	0.021276	0.5961	47.001	1.6777	0.7378	0.7383
17.600	17.947	113.216	-159.934	0.021256	0.5955	47.046	1.6793	0.7371	0.7375
17.652	18.000	113.269	-159.881	0.021239	0.5950	47.083	1.6806	0.7365	0.7370
17.800	18.151	113.421	-159.729	0.021192	0.5937	47.188	1.6843	0.7349	0.7353
18.000	18.355	113.624	-159.526	0.021128	0.5919	47.331	1.6894	0.7326	0.7331
18.200	18.559	113.826	-159.324	0.021064	0.5901	47.475	1.6945	0.7304	0.7309
18.373	18.735	114.000	-159.150	0.021008	0.5886	47.600	1.6990	0.7285	0.7290
18.400	18.763	114.027	-159.123	0.021000	0.5883	47.619	1.6997	0.7282	0.7287
18.524	18.889	114.150	-159.000	0.020960	0.5872	47.709	1.7029	0.7268	0.7273
18.600	18.967	114.226	-158.924	0.020936	0.5865	47.765	1.7049	0.7260	0.7264
18.633	19.000	114.258	-158.892	0.020925	0.5862	47.789	1.7058	0.7256	0.7261
18.800	19.171	114.423	-158.727	0.020872	0.5847	47.912	1.7102	0.7238	0.7242
19.000	19.375	114.619	-158.531	0.020807	0.5829	48.060	1.7154	0.7215	0.7220
19.200	19.579	114.813	-158.337	0.020743	0.5811	48.209	1.7208	0.7193	0.7198
19.394	19.776	115.000	-158.150	0.020681	0.5794	48.354	1.7260	0.7171	0.7176

TABLE 7 CONTINUED

SATURATED LIQUID NITROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
19.400	19.782	115.006	-158.144	0.020679	0.5793	48.359	1.7261	0.7171	0.7175
19.551	19.936	115.150	-158.000	0.020630	0.5780	48.473	1.7302	0.7154	0.7158
19.600	19.986	115.197	-157.953	0.020614	0.5775	48.510	1.7315	0.7148	0.7153
19.613	20.000	115.210	-157.940	0.020610	0.5774	48.520	1.7319	0.7147	0.7151
19.800	20.190	115.387	-157.763	0.020550	0.5757	48.663	1.7370	0.7126	0.7130
20.000	20.394	115.576	-157.574	0.020485	0.5739	48.817	1.7425	0.7103	0.7108
20.200	20.598	115.763	-157.387	0.020420	0.5721	48.972	1.7480	0.7181	0.7085
20.400	20.802	115.949	-157.201	0.020355	0.5703	49.128	1.7536	0.7058	0.7063
20.455	20.859	116.000	-157.150	0.020337	0.5698	49.172	1.7551	0.7052	0.7057
20.594	21.000	116.128	-157.022	0.020292	0.5685	49.282	1.7591	0.7036	0.7041
20.600	21.006	116.133	-157.017	0.020290	0.5684	49.286	1.7592	0.7036	0.7040
20.618	21.025	116.150	-157.000	0.020284	0.5683	49.301	1.7597	0.7034	0.7038
20.800	21.210	116.317	-156.833	0.020224	0.5666	49.446	1.7649	0.7013	0.7018
21.000	21.414	116.499	-156.651	0.020159	0.5648	49.607	1.7707	0.6990	0.6995
21.200	21.618	116.679	-156.471	0.020093	0.5629	49.769	1.7765	0.6968	0.6972
21.400	21.822	116.859	-156.291	0.020027	0.5611	49.933	1.7823	0.6945	0.6949
21.558	21.983	117.000	-156.150	0.019974	0.5596	50.064	1.7870	0.6926	0.6931
21.575	22.000	117.015	-156.135	0.019969	0.5594	50.078	1.7875	0.6925	0.6929
21.600	22.026	117.037	-156.113	0.019960	0.5592	50.099	1.7882	0.6922	0.6926
21.727	22.156	117.150	-156.000	0.019918	0.5580	50.205	1.7920	0.6907	0.6911
21.800	22.230	117.214	-155.936	0.019894	0.5573	50.267	1.7942	0.6899	0.6903
22.000	22.434	117.390	-155.760	0.019827	0.5555	50.436	1.8003	0.6875	0.6880
22.200	22.638	117.565	-155.585	0.019760	0.5536	50.607	1.8064	0.6852	0.6857
22.400	22.842	117.739	-155.411	0.019693	0.5517	50.780	1.8125	0.6829	0.6833
22.555	23.000	117.873	-155.277	0.019640	0.5502	50.916	1.8174	0.6811	0.6815
22.600	23.046	117.911	-155.239	0.019625	0.5498	50.955	1.8188	0.6805	0.6810
22.704	23.151	118.000	-155.150	0.019590	0.5488	51.046	1.8220	0.6793	0.6798
22.800	23.250	118.082	-155.068	0.019557	0.5479	51.132	1.8251	0.6782	0.6786
22.879	23.330	118.150	-155.000	0.019530	0.5472	51.203	1.8276	0.6772	0.6777
23.000	23.453	118.253	-154.897	0.019489	0.5460	51.311	1.8315	0.6758	0.6762
23.200	23.657	118.422	-154.728	0.019420	0.5441	51.492	1.8380	0.6734	0.6739
23.400	23.861	118.590	-154.560	0.019352	0.5422	51.676	1.8445	0.6711	0.6715
23.536	24.000	118.704	-154.446	0.019304	0.5408	51.802	1.8490	0.6694	0.6698
23.600	24.065	118.757	-154.393	0.019282	0.5402	51.861	1.8511	0.6686	0.6691
23.800	24.269	118.923	-154.227	0.019212	0.5383	52.049	1.8578	0.6662	0.6667
23.893	24.364	119.000	-154.150	0.019180	0.5373	52.138	1.8610	0.6651	0.6655
24.000	24.473	119.088	-154.062	0.019142	0.5363	52.240	1.8647	0.6638	0.6642
24.076	24.550	119.150	-154.000	0.019116	0.5355	52.313	1.8672	0.6629	0.6633
24.200	24.677	119.252	-153.898	0.019072	0.5343	52.433	1.8715	0.6614	0.6618
24.400	24.881	119.415	-153.735	0.019001	0.5323	52.629	1.8785	0.6589	0.6593
24.517	25.000	119.509	-153.641	0.018959	0.5312	52.745	1.8827	0.6574	0.6579
24.600	25.085	119.577	-153.573	0.018929	0.5303	52.828	1.8856	0.6564	0.6568
24.800	25.289	119.738	-153.412	0.018857	0.5283	53.029	1.8928	0.6539	0.6543
25.000	25.493	119.898	-153.252	0.018785	0.5263	53.234	1.9001	0.6514	0.6518
25.128	25.624	120.000	-153.150	0.018738	0.5250	53.367	1.9049	0.6498	0.6502

TABLE 7 CONTINUED

SATURATED LIQUID NITROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
25.200	25.697	120.057	-153.093	0.018712	0.5242	53.442	1.9075	0.6489	0.6493
25.318	25.817	120.150	-153.000	0.018669	0.5230	53.565	1.9120	0.6474	0.6478
25.400	25.901	120.215	-152.935	0.018638	0.5222	53.653	1.9151	0.6463	0.6467
25.497	26.000	120.292	-152.858	0.018602	0.5212	53.756	1.9188	0.6451	0.6455
25.600	26.105	120.372	-152.778	0.018564	0.5201	53.867	1.9227	0.6438	0.6442
25.800	26.309	120.529	-152.621	0.018490	0.5180	54.084	1.9305	0.6412	0.6416
26.000	26.513	120.684	-152.466	0.018414	0.5159	54.306	1.9384	0.6385	0.6390
26.200	26.717	120.838	-152.312	0.018338	0.5138	54.531	1.9464	0.6359	0.6363
26.400	26.921	120.992	-152.158	0.018261	0.5116	54.760	1.9546	0.6333	0.6337
26.410	26.931	121.000	-152.150	0.018257	0.5115	54.772	1.9550	0.6331	0.6335
26.478	27.000	121.052	-152.096	0.018231	0.5108	54.851	1.9578	0.6322	0.6326
26.600	27.124	121.145	-152.005	0.018184	0.5094	54.993	1.9629	0.6306	0.6310
26.607	27.131	121.150	-152.000	0.018181	0.5094	55.001	1.9632	0.6305	0.6309
26.800	27.328	121.297	-151.853	0.018106	0.5073	55.231	1.9714	0.6279	0.6283
27.000	27.532	121.448	-151.702	0.018027	0.5050	55.473	1.9800	0.6251	0.6255
27.200	27.736	121.598	-151.552	0.017947	0.5028	55.720	1.9889	0.6223	0.6227
27.400	27.940	121.747	-151.403	0.017866	0.5005	55.971	1.9978	0.6195	0.6199
27.459	28.000	121.791	-151.359	0.017842	0.4999	56.045	2.0005	0.6187	0.6191
27.600	28.144	121.896	-151.254	0.017785	0.4983	56.228	2.0070	0.6167	0.6171
27.741	28.288	122.000	-151.150	0.017727	0.4966	56.413	2.0136	0.6147	0.6151
27.800	28.348	122.043	-151.107	0.017702	0.4959	56.490	2.0164	0.6139	0.6142
27.945	28.496	122.150	-151.000	0.017642	0.4942	56.684	2.0233	0.6118	0.6121
28.000	28.552	122.190	-150.960	0.017619	0.4936	56.758	2.0259	0.6110	0.6113
28.200	28.756	122.336	-150.814	0.017534	0.4912	57.032	2.0357	0.6080	0.6084
28.400	28.960	122.482	-150.668	0.017448	0.4888	57.313	2.0457	0.6050	0.6054
28.439	29.000	122.510	-150.640	0.017431	0.4884	57.368	2.0477	0.6045	0.6048
28.600	29.164	122.626	-150.524	0.017361	0.4864	57.599	2.0559	0.6020	0.6024
28.800	29.368	122.770	-150.380	0.017273	0.4839	57.893	2.0664	0.5990	0.5994
29.000	29.572	122.913	-150.237	0.017184	0.4814	58.194	2.0772	0.5959	0.5963
29.122	29.696	123.000	-150.150	0.017129	0.4799	58.382	2.0839	0.5940	0.5943
29.200	29.776	123.055	-150.095	0.017093	0.4789	58.503	2.0882	0.5927	0.5931
29.334	29.912	123.150	-150.000	0.017032	0.4772	58.715	2.0958	0.5906	0.5910
29.400	29.980	123.197	-149.953	0.017001	0.4763	58.821	2.0995	0.5895	0.5899
29.420	30.000	123.211	-149.939	0.016992	0.4760	58.853	2.1007	0.5892	0.5896
29.600	30.184	123.337	-149.813	0.016907	0.4737	59.147	2.1112	0.5863	0.5867
29.800	30.388	123.477	-149.673	0.016812	0.4710	59.482	2.1231	0.5830	0.5834
30.000	30.591	123.617	-149.533	0.016715	0.4683	59.827	2.1355	0.5796	0.5800
30.200	30.795	123.755	-149.395	0.016616	0.4655	60.183	2.1482	0.5762	0.5766
30.400	30.999	123.893	-149.257	0.016515	0.4627	60.550	2.1613	0.5727	0.5731
30.401	31.000	123.894	-149.256	0.016515	0.4627	60.551	2.1613	0.5727	0.5730
30.556	31.158	124.000	-149.150	0.016435	0.4605	60.845	2.1718	0.5699	0.5703
30.600	31.203	124.030	-149.120	0.016412	0.4598	60.930	2.1748	0.5691	0.5695
30.775	31.382	124.150	-149.000	0.016320	0.4572	61.273	2.1871	0.5659	0.5663
30.800	31.407	124.167	-148.983	0.016307	0.4569	61.322	2.1889	0.5655	0.5658
31.000	31.611	124.302	-148.848	0.016200	0.4539	61.728	2.2033	0.5518	0.5621

TABLE 7 CONTINUED

SATURATED LIQUID NITROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
31.200	31.815	124.438	-148.712	0.016090	0.4508	62.150	2.2184	0.5580	0.5583
31.381	32.000	124.559	-148.591	0.015988	0.4479	62.546	2.2325	0.5544	0.5548
31.400	32.019	124.572	-148.578	0.015978	0.4476	62.587	2.2340	0.5541	0.5544
31.600	32.223	124.706	-148.444	0.015862	0.4444	63.043	2.2503	0.5501	0.5504
31.800	32.427	124.839	-148.311	0.015744	0.4411	63.518	2.2672	0.5459	0.5463
32.000	32.631	124.971	-148.179	0.015621	0.4377	64.014	2.2849	0.5417	0.5420
32.044	32.676	125.000	-148.150	0.015594	0.4369	64.126	2.2889	0.5408	0.5411
32.200	32.835	125.103	-148.047	0.015496	0.4341	64.534	2.3035	0.5373	0.5377
32.272	32.908	125.150	-148.000	0.015450	0.4328	64.727	2.3104	0.5357	0.5361
32.362	33.000	125.209	-147.941	0.015391	0.4312	64.973	2.3192	0.5337	0.5340
32.400	33.039	125.234	-147.916	0.015366	0.4305	65.079	2.3229	0.5328	0.5332
32.600	33.243	125.364	-147.786	0.015232	0.4267	65.653	2.3434	0.5282	0.5285
32.800	33.447	125.494	-147.656	0.015092	0.4228	66.259	2.3650	0.5234	0.5237
33.000	33.651	125.623	-147.527	0.014948	0.4188	66.900	2.3879	0.5183	0.5187
33.343	34.000	125.843	-147.307	0.014685	0.4114	68.095	2.4306	0.5092	0.5096
33.589	34.251	126.000	-147.150	0.014483	0.4058	69.045	2.4645	0.5022	0.5026
34.000	34.671	126.260	-146.890	0.011230	0.3146	89.046	3.1784	0.3894	0.3897

TABLE 8 DENSITY OF COMPRESSED LIQUID NITROGEN

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	12.500 12.746	15.000 15.296	17.500 17.845	20.000 20.394	25.000 25.493	30.000 30.591
75.0	1.0127	1.0127	1.0130	1.0135	1.0141	1.0146	1.0151	1.0158	1.0164	1.0171	1.0177	1.0190	1.0203
-198.15	1.0133	1.0134	1.0136	1.0142	1.0147	1.0152	1.0158	1.0164	1.0171	1.0177	1.0184	1.0196	1.0209
0.760	0.8182	0.8182	0.8184	0.8180	0.8193	0.8197	0.8201	0.8207	0.8212	0.8217	0.8222	0.8233	0.8243
75.1	1.0121	1.0122	1.0124	1.0130	1.0135	1.0140	1.0146	1.0152	1.0159	1.0165	1.0172	1.0184	1.0197
-198.05	1.0128	1.0128	1.0131	1.0136	1.0141	1.0147	1.0152	1.0159	1.0165	1.0172	1.0178	1.0191	1.0204
0.769	0.8177	0.8177	0.8180	0.8184	0.8188	0.8193	0.8197	0.8202	0.8207	0.8213	0.8218	0.8228	0.8238
75.2	1.0116	1.0116	1.0119	1.0124	1.0129	1.0135	1.0140	1.0147	1.0153	1.0160	1.0166	1.0179	1.0192
-197.95	1.0122	1.0122	1.0125	1.0131	1.0136	1.0141	1.0147	1.0153	1.0160	1.0166	1.0173	1.0186	1.0198
0.779	0.8172	0.8173	0.8175	0.8179	0.8184	0.8188	0.8192	0.8198	0.8203	0.8208	0.8213	0.8224	0.8234
75.3	1.0110	1.0110	1.0113	1.0119	1.0124	1.0129	1.0135	1.0141	1.0148	1.0154	1.0161	1.0174	1.0186
-197.85	1.0116	1.0117	1.0120	1.0125	1.0130	1.0136	1.0141	1.0148	1.0154	1.0161	1.0167	1.0180	1.0193
0.789	0.8168	0.8168	0.8171	0.8175	0.8179	0.8184	0.8188	0.8193	0.8199	0.8204	0.8209	0.8220	0.8230
75.4	1.0104	1.0105	1.0108	1.0113	1.0118	1.0124	1.0129	1.0136	1.0142	1.0149	1.0155	1.0168	1.0181
-197.75	1.0111	1.0111	1.0114	1.0119	1.0125	1.0130	1.0135	1.0142	1.0149	1.0155	1.0162	1.0175	1.0188
0.799	0.8163	0.8164	0.8166	0.8170	0.8175	0.8179	0.8183	0.8188	0.8194	0.8199	0.8205	0.8215	0.8225
75.5		1.0099	1.0102	1.0107	1.0113	1.0118	1.0124	1.0130	1.0137	1.0143	1.0150	1.0163	1.0176
-197.65		1.0106	1.0108	1.0114	1.0119	1.0125	1.0130	1.0137	1.0143	1.0150	1.0156	1.0169	1.0182
0.809		0.8159	0.8162	0.8166	0.8170	0.8175	0.8179	0.8184	0.8190	0.8195	0.8200	0.8211	0.8221
75.6		1.0094	1.0096	1.0102	1.0107	1.0113	1.0118	1.0125	1.0131	1.0138	1.0144	1.0158	1.0170
-197.55		1.0100	1.0103	1.0108	1.0114	1.0119	1.0124	1.0131	1.0138	1.0144	1.0151	1.0164	1.0177
0.819		0.8155	0.8157	0.8161	0.8166	0.8170	0.8174	0.8180	0.8185	0.8191	0.8196	0.8206	0.8217
75.7		1.0088	1.0091	1.0096	1.0102	1.0107	1.0112	1.0119	1.0126	1.0132	1.0139	1.0152	1.0165
-197.45		1.0094	1.0097	1.0103	1.0108	1.0113	1.0119	1.0126	1.0132	1.0139	1.0145	1.0159	1.0171
0.829		0.8150	0.8152	0.8157	0.8161	0.8166	0.8170	0.8175	0.8181	0.8186	0.8191	0.8202	0.8212
75.8		1.0082	1.0085	1.0091	1.0096	1.0101	1.0107	1.0114	1.0120	1.0127	1.0134	1.0147	1.0160
-197.35		1.0089	1.0092	1.0097	1.0102	1.0108	1.0113	1.0120	1.0127	1.0133	1.0140	1.0153	1.0166
0.839		0.8146	0.8148	0.8152	0.8157	0.8161	0.8166	0.8171	0.8176	0.8182	0.8187	0.8198	0.8208
75.9		1.0077	1.0080	1.0085	1.0090	1.0096	1.0101	1.0108	1.0115	1.0121	1.0128	1.0141	1.0154
-197.25		1.0083	1.0086	1.0091	1.0097	1.0102	1.0108	1.0114	1.0121	1.0128	1.0135	1.0148	1.0161
0.850		0.8141	0.8143	0.8148	0.8152	0.8157	0.8161	0.8166	0.8172	0.8177	0.8183	0.8193	0.8204
76.0		1.0071	1.0074	1.0079	1.0085	1.0090	1.0096	1.0103	1.0109	1.0116	1.0123	1.0136	1.0149
-197.15		1.0077	1.0080	1.0086	1.0091	1.0097	1.0102	1.0108	1.0116	1.0122	1.0129	1.0142	1.0155
0.860		0.8137	0.8139	0.8143	0.8148	0.8152	0.8157	0.8162	0.8167	0.8173	0.8178	0.8189	0.8199
76.1		1.0065	1.0068	1.0074	1.0079	1.0085	1.0090	1.0097	1.0104	1.0110	1.0117	1.0130	1.0144
-197.05		1.0072	1.0075	1.0080	1.0086	1.0091	1.0097	1.0103	1.0110	1.0117	1.0124	1.0137	1.0150
0.871		0.8132	0.8134	0.8139	0.8143	0.8148	0.8152	0.8158	0.8163	0.8168	0.8174	0.8185	0.8195
76.2		1.0060	1.0063	1.0068	1.0074	1.0079	1.0085	1.0091	1.0098	1.0105	1.0112	1.0125	1.0138
-196.95		1.0066	1.0069	1.0075	1.0080	1.0086	1.0091	1.0098	1.0105	1.0111	1.0118	1.0131	1.0145
0.882		0.8127	0.8130	0.8134	0.8139	0.8143	0.8148	0.8153	0.8159	0.8164	0.8169	0.8180	0.8191
76.3		1.0054	1.0057	1.0063	1.0068	1.0074	1.0079	1.0086	1.0093	1.0099	1.0106	1.0120	1.0133
-196.85		1.0061	1.0063	1.0069	1.0074	1.0080	1.0085	1.0092	1.0099	1.0106	1.0113	1.0126	1.0139
0.892		0.8123	0.8125	0.8130	0.8134	0.8139	0.8143	0.8149	0.8154	0.8160	0.8165	0.8176	0.8186
76.4		1.0048	1.0051	1.0057	1.0062	1.0068	1.0074	1.0080	1.0087	1.0094	1.0101	1.0114	1.0127
-196.75		1.0055	1.0058	1.0063	1.0069	1.0074	1.0080	1.0087	1.0094	1.0100	1.0107	1.0121	1.0134
0.903		0.8118	0.8121	0.8125	0.8130	0.8134	0.8139	0.8144	0.8150	0.8155	0.8161	0.8171	0.8182
76.5		1.0043	1.0046	1.0051	1.0057	1.0062	1.0068	1.0075	1.0082	1.0088	1.0095	1.0109	1.0122
-196.65		1.0049	1.0052	1.0058	1.0063	1.0069	1.0074	1.0081	1.0088	1.0095	1.0102	1.0115	1.0128
0.914		0.8114	0.8116	0.8121	0.8125	0.8130	0.8134	0.8140	0.8145	0.8151	0.8156	0.8167	0.8178
76.6		1.0037	1.0040	1.0046	1.0051	1.0057	1.0062	1.0069	1.0076	1.0083	1.0090	1.0103	1.0117
-196.55		1.0044	1.0046	1.0052	1.0058	1.0063	1.0069	1.0076	1.0083	1.0089	1.0096	1.0110	1.0123
0.925		0.8109	0.8111	0.8116	0.8121	0.8125	0.8130	0.8135	0.8141	0.8146	0.8152	0.8163	0.8173
76.7		1.0031	1.0034	1.0040	1.0046	1.0051	1.0057	1.0064	1.0071	1.0077	1.0084	1.0098	1.0111
-196.45		1.0038	1.0041	1.0046	1.0052	1.0058	1.0063	1.0070	1.0077	1.0084	1.0091	1.0104	1.0118
0.936		0.8105	0.8107	0.8111	0.8116	0.8120	0.8125	0.8131	0.8136	0.8142	0.8147	0.8158	0.8169
76.8		1.0026	1.0029	1.0034	1.0040	1.0046	1.0051	1.0058	1.0065	1.0072	1.0079	1.0092	1.0106
-196.35		1.0032	1.0035	1.0041	1.0046	1.0052	1.0058	1.0064	1.0071	1.0078	1.0085	1.0099	1.0112
0.948		0.8100	0.8102	0.8107	0.8111	0.8116	0.8120	0.8126	0.8132	0.8137	0.8143	0.8154	0.8165
76.9		1.0020	1.0023	1.0029	1.0034	1.0040	1.0046	1.0053	1.0059	1.0066	1.0073	1.0087	1.0100
-196.25		1.0026	1.0029	1.0035	1.0041	1.0046	1.0052	1.0059	1.0066	1.0073	1.0080	1.0093	1.0107
0.959		0.8095	0.8098	0.8102	0.8107	0.8111	0.8116	0.8122	0.8127	0.8133	0.8138	0.8149	0.8160

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	12.500	15.000	17.500	20.000	25.000	30.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	12.746	15.296	17.845	20.394	25.493	30.591
77.0		1.0014	1.0017	1.0023	1.0029	1.0034	1.0040	1.0047	1.0054	1.0061	1.0068	1.0081	1.0095
-196.15		1.0021	1.0024	1.0029	1.0035	1.0041	1.0046	1.0053	1.0060	1.0067	1.0074	1.0088	1.0101
0.971		0.8091	0.8093	0.8098	0.8102	0.8107	0.8111	0.8117	0.8123	0.8128	0.8134	0.8145	0.8156
77.1		1.0009	1.0012	1.0017	1.0023	1.0029	1.0034	1.0041	1.0048	1.0055	1.0062	1.0076	1.0089
-196.05		1.0015	1.0018	1.0024	1.0029	1.0035	1.0041	1.0048	1.0055	1.0062	1.0069	1.0082	1.009E
0.982		0.8086	0.8089	0.8093	0.8098	0.8102	0.8107	0.8113	0.8118	0.8124	0.8129	0.8140	0.8151
77.2		1.0003	1.0006	1.0012	1.0017	1.0023	1.0029	1.003E	1.0043	1.0050	1.0057	1.0070	1.0084
-195.95		1.0009	1.0012	1.0018	1.0024	1.0029	1.0035	1.0042	1.0049	1.005E	1.0063	1.0077	1.0090
0.994		0.8082	0.8084	0.8089	0.8093	0.8098	0.8102	0.8108	0.8114	0.8119	0.8125	0.813E	0.8147
77.3			1.0000	1.0006	1.0012	1.0017	1.0023	1.0030	1.0037	1.0044	1.0051	1.0065	1.0079
-195.85			1.0007	1.0012	1.0018	1.0024	1.0029	1.0037	1.0044	1.0051	1.0057	1.0071	1.0085
1.006			0.8079	0.8084	0.8089	0.8093	0.8098	0.8104	0.8109	0.8115	0.8120	0.8132	0.8143
77.4			0.9994	1.0000	1.000E	1.0012	1.0017	1.0025	1.0032	1.0039	1.0046	1.0059	1.0073
-195.75			1.0001	1.0007	1.0012	1.0018	1.0024	1.0031	1.0038	1.0045	1.0052	1.0066	1.0079
1.018			0.8075	0.8079	0.8084	0.8089	0.8093	0.8099	0.8105	0.8110	0.8116	0.8127	0.8138
77.5			0.9989	0.9995	1.0000	1.0006	1.0012	1.0019	1.0026	1.0033	1.0040	1.0054	1.0068
-195.65			0.9995	1.0001	1.0007	1.0012	1.0018	1.0025	1.0032	1.0039	1.0046	1.0060	1.0074
1.030			0.8070	0.8075	0.8079	0.8084	0.8089	0.8094	0.8100	0.8106	0.8112	0.8123	0.8134
77.6			0.9983	0.9989	0.9995	1.0000	1.0006	1.0013	1.0020	1.0027	1.0034	1.0048	1.0062
-195.55			0.9989	0.9995	1.0001	1.0007	1.0013	1.0020	1.0027	1.0034	1.0041	1.0055	1.0069
1.042			0.8065	0.8070	0.8075	0.8080	0.8084	0.8090	0.809E	0.8101	0.8107	0.8118	0.8129
77.7			0.9977	0.9983	0.9989	0.9995	1.0001	1.0008	1.0015	1.0022	1.0029	1.0043	1.0057
-195.45			0.9984	0.9989	0.9995	1.0001	1.0007	1.0014	1.0021	1.0028	1.0035	1.0049	1.0063
1.054			0.8061	0.8066	0.8070	0.8075	0.8080	0.8085	0.8091	0.8097	0.8103	0.8114	0.8125
77.8			0.9972	0.9977	0.9983	0.9989	0.9995	1.0002	1.0009	1.0016	1.0023	1.0037	1.0051
-195.35			0.9978	0.9984	0.9990	0.9995	1.0001	1.0008	1.0016	1.0023	1.0030	1.0044	1.0058
1.066			0.8056	0.80E1	0.8066	0.8070	0.8075	0.8081	0.8087	0.8092	0.8098	0.8109	0.8121
77.9			0.9966	0.9972	0.9978	0.9983	0.9989	0.999F	1.0004	1.0011	1.0018	1.0032	1.0046
-195.25			0.9972	0.9978	0.9984	0.9990	0.9996	1.0003	1.0010	1.0017	1.0024	1.0038	1.0052
1.079			0.8052	0.8056	0.8061	0.8066	0.8070	0.807E	0.8082	0.8088	0.8094	0.8105	0.8116
78.0			0.9960	0.9966	0.9972	0.9978	0.9984	0.9991	0.9998	1.0005	1.0012	1.0026	1.0040
-195.15			0.9966	0.9972	0.9978	0.9984	0.9990	0.9997	1.0004	1.0012	1.0019	1.0033	1.0047
1.091			0.8047	0.8052	0.8056	0.8061	0.8066	0.8072	0.8078	0.8083	0.8089	0.8100	0.8112
78.1			0.9954	0.995D	0.9966	0.9972	0.9978	0.9985	0.9992	1.0000	1.0007	1.0021	1.0035
-195.05			0.9961	0.9967	0.9973	0.9978	0.9984	0.9992	0.9999	1.0006	1.0013	1.0027	1.0041
1.104			0.8042	0.8047	0.8052	0.8057	0.8061	0.8067	0.8073	0.8079	0.8085	0.809E	0.8107
78.2			0.9949	0.9955	0.9960	0.9966	0.9972	0.998C	0.9987	0.9994	1.0001	1.0015	1.0029
-194.95			0.9955	0.9961	0.9967	0.9973	0.9979	0.9986	0.9993	1.0000	1.0007	1.0022	1.003E
1.117			0.8038	0.8042	0.8047	0.8052	0.8057	0.8063	0.8068	0.8074	0.8080	0.8092	0.8103
78.3			0.9943	0.9949	0.9955	0.9961	0.9967	0.9974	0.9981	0.9988	0.9996	1.0010	1.0024
-194.85			0.9949	0.9955	0.9961	0.9967	0.9973	0.9980	0.9987	0.9995	1.0002	1.001E	1.0030
1.130			0.8033	0.8038	0.8043	0.8047	0.8052	0.805F	0.8064	0.8070	0.8076	0.8087	0.8098
78.4			0.9937	0.9943	0.9949	0.9955	0.9961	0.9968	0.9976	0.9983	0.9990	1.0004	1.0018
-194.75			0.9943	0.9949	0.9955	0.9961	0.9967	0.9975	0.9982	0.9989	0.9996	1.0011	1.0025
1.143			0.8028	0.8033	0.8038	0.8043	0.8048	0.8053	0.8059	0.8065	0.8071	0.8083	0.8094
78.5			0.9931	0.9937	0.9943	0.9949	0.9955	0.9963	0.9970	0.9977	0.9984	0.9999	1.0013
-194.65			0.9938	0.9944	0.9950	0.9956	0.9962	0.9969	0.9976	0.9983	0.9991	1.0005	1.0019
1.156			0.8024	0.8029	0.8033	0.8038	0.8043	0.8049	0.8055	0.8061	0.8067	0.8078	0.8090
78.6			0.9926	0.9932	0.9938	0.9944	0.9949	0.9957	0.9964	0.9972	0.9979	0.9993	1.0007
-194.55			0.9932	0.9938	0.9944	0.9950	0.9956	0.9963	0.9971	0.9978	0.9985	1.0000	1.0014
1.169			0.8019	0.8024	0.8029	0.8034	0.8038	0.8044	0.8050	0.8056	0.8062	0.8074	0.8085
78.7			0.9920	0.9926	0.9932	0.9938	0.9944	0.9951	0.9959	0.9966	0.9973	0.9988	1.0002
-194.45			0.9926	0.9932	0.9938	0.9944	0.9950	0.9958	0.9965	0.9972	0.9980	0.9994	1.0008
1.182			0.8014	0.8019	0.8024	0.8029	0.8034	0.8040	0.8046	0.8052	0.8057	0.8069	0.8081
78.8			0.9914	0.9920	0.9926	0.9932	0.9938	0.9946	0.9953	0.9960	0.9968	0.9982	0.9996
-194.35			0.9920	0.9926	0.9932	0.9938	0.9944	0.9952	0.9959	0.9967	0.9974	0.9988	1.0003
1.196			0.8010	0.8015	0.8019	0.8024	0.8029	0.8035	0.8041	0.8047	0.8053	0.8065	0.8076
78.9			0.9908	0.9914	0.9920	0.9926	0.9932	0.9940	0.9947	0.9955	0.9962	0.997E	0.9991
-194.25			0.9914	0.9921	0.9927	0.9933	0.9939	0.9946	0.9954	0.9961	0.9968	0.9983	0.9997
1.209			0.8005	0.8010	0.8015	0.802D	0.8025	0.8031	0.8037	0.8043	0.8048	0.8060	0.8072

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	12.500 12.746	15.000 15.296	17.500 17.845	20.000 20.394	25.000 25.493	30.000 30.591
79.0			0.9902	0.9908	0.9915	0.9921	0.9927	0.9934	0.9942	0.9949	0.9956	0.9971	0.9985
-194.15			0.9909	0.9915	0.9921	0.9927	0.9933	0.9940	0.9948	0.9955	0.9963	0.9977	0.9992
1.223			0.8000	0.8005	0.8010	0.8015	0.8020	0.8026	0.8032	0.8038	0.8044	0.8056	0.8067
79.1			0.9897	0.9903	0.9909	0.9915	0.9921	0.9928	0.9936	0.9943	0.9951	0.9965	0.9980
-194.05			0.9903	0.9909	0.9915	0.9921	0.9927	0.9935	0.9942	0.9950	0.9957	0.9972	0.9986
1.237			0.7998	0.8001	0.8005	0.8010	0.8015	0.8021	0.8027	0.8033	0.8039	0.8051	0.8063
79.2			0.9891	0.9897	0.9903	0.9909	0.9915	0.9923	0.9930	0.9938	0.9945	0.9960	0.9974
-193.95			0.9897	0.9903	0.9909	0.9915	0.9922	0.9929	0.9937	0.9944	0.9951	0.9966	0.9981
1.251			0.7991	0.7996	0.8001	0.8006	0.8011	0.8017	0.8023	0.8029	0.8035	0.8047	0.8058
79.3			0.9885	0.9891	0.9897	0.9903	0.9909	0.9917	0.9925	0.9932	0.9939	0.9954	0.9969
-193.85			0.9891	0.9897	0.9904	0.9910	0.9916	0.9923	0.9931	0.9938	0.9946	0.9961	0.9975
1.265			0.7986	0.7991	0.7996	0.8001	0.8006	0.8012	0.8018	0.8024	0.8030	0.8042	0.8054
79.4			0.9879	0.9885	0.9891	0.9898	0.9904	0.9911	0.9919	0.9926	0.9934	0.9949	0.9963
-193.75			0.9885	0.9892	0.9898	0.9904	0.9910	0.9918	0.9925	0.9933	0.9940	0.9955	0.9970
1.279			0.7981	0.7987	0.7991	0.7996	0.8001	0.8006	0.8014	0.8020	0.8026	0.8038	0.8049
79.5			0.9873	0.9880	0.9886	0.9892	0.9898	0.9906	0.9913	0.9921	0.9928	0.9943	0.9958
-193.65			0.9880	0.9886	0.9892	0.9898	0.9904	0.9912	0.9920	0.9927	0.9935	0.9949	0.9964
1.293			0.7977	0.7982	0.7987	0.7992	0.7997	0.8003	0.8009	0.8015	0.8021	0.8033	0.8045
79.6			0.9867	0.9874	0.9880	0.9886	0.9892	0.9900	0.9908	0.9915	0.9923	0.9937	0.9952
-193.55			0.9874	0.9880	0.9886	0.9892	0.9899	0.9906	0.9914	0.9921	0.9929	0.9944	0.9958
1.308			0.7972	0.7977	0.7982	0.7987	0.7992	0.7998	0.8004	0.8011	0.8017	0.8029	0.8040
79.7			0.9862	0.9868	0.9874	0.9880	0.9887	0.9894	0.9902	0.9909	0.9917	0.9932	0.9947
-193.45			0.9868	0.9874	0.9880	0.9887	0.9893	0.9900	0.9908	0.9916	0.9923	0.9938	0.9953
1.322			0.7967	0.7972	0.7977	0.7982	0.7987	0.7994	0.8000	0.8006	0.8012	0.8024	0.8036
79.8			0.9856	0.9862	0.9868	0.9875	0.9881	0.9888	0.9896	0.9904	0.9911	0.9926	0.9941
-193.35			0.9862	0.9868	0.9875	0.9881	0.9887	0.9895	0.9902	0.9910	0.9918	0.9933	0.9947
1.337			0.7963	0.7968	0.7973	0.7978	0.7983	0.7989	0.7995	0.8001	0.8007	0.8020	0.8032
79.9			0.9850	0.9856	0.9863	0.9869	0.9875	0.9883	0.9890	0.9898	0.9906	0.9921	0.9935
-193.25			0.9856	0.9862	0.9869	0.9875	0.9881	0.9889	0.9897	0.9904	0.9912	0.9927	0.9942
1.352			0.7958	0.7963	0.7968	0.7973	0.7978	0.7984	0.7991	0.7997	0.8003	0.8015	0.8027
80.0			0.9844	0.9850	0.9857	0.9863	0.9869	0.9877	0.9885	0.9892	0.9900	0.9915	0.9930
-193.15			0.9850	0.9857	0.9863	0.9869	0.9875	0.9883	0.9891	0.9899	0.9906	0.9921	0.9936
1.367			0.7953	0.7958	0.7963	0.7968	0.7973	0.7980	0.7986	0.7992	0.7998	0.8010	0.8023
80.1			0.9838	0.9845	0.9851	0.9857	0.9863	0.9871	0.9879	0.9887	0.9894	0.9909	0.9924
-193.05			0.9844	0.9851	0.9857	0.9863	0.9870	0.9877	0.9885	0.9893	0.9901	0.9916	0.9931
1.382			0.7948	0.7954	0.7959	0.7964	0.7969	0.7975	0.7981	0.7988	0.7994	0.8006	0.8018
80.2			0.9832	0.9839	0.9845	0.9851	0.9858	0.9865	0.9873	0.9881	0.9889	0.9904	0.9919
-192.95			0.9839	0.9845	0.9851	0.9858	0.9864	0.9872	0.9880	0.9887	0.9895	0.9910	0.9925
1.397			0.7944	0.7949	0.7954	0.7959	0.7964	0.7970	0.7977	0.7983	0.7989	0.8001	0.8014
80.3			0.9826	0.9833	0.9839	0.9846	0.9852	0.9860	0.9868	0.9875	0.9883	0.9898	0.9913
-192.85			0.9833	0.9839	0.9845	0.9852	0.9858	0.9866	0.9874	0.9882	0.9889	0.9904	0.9919
1.412			0.7939	0.7944	0.7949	0.7954	0.7959	0.7966	0.7972	0.7978	0.7985	0.7997	0.8009
80.4			0.9821	0.9827	0.9833	0.9840	0.9846	0.9854	0.9862	0.9870	0.9877	0.9893	0.9908
-192.75			0.9827	0.9833	0.9840	0.9846	0.9852	0.9860	0.9868	0.9876	0.9884	0.9899	0.9914
1.428			0.7934	0.7939	0.7945	0.7950	0.7955	0.7961	0.7967	0.7974	0.7980	0.7992	0.8005
80.5			0.9815	0.9821	0.9828	0.9834	0.9840	0.9848	0.9856	0.9864	0.9872	0.9887	0.9902
-192.65			0.9821	0.9827	0.9834	0.9840	0.9847	0.9854	0.9862	0.9870	0.9878	0.9893	0.9908
1.443			0.7929	0.7935	0.7940	0.7945	0.7950	0.7956	0.7963	0.7969	0.7975	0.7988	0.8000
80.6			0.9809	0.9815	0.9822	0.9828	0.9834	0.9842	0.9850	0.9858	0.9866	0.9881	0.9896
-192.55			0.9815	0.9821	0.9828	0.9834	0.9841	0.9849	0.9857	0.9864	0.9872	0.9888	0.9903
1.459			0.7925	0.7930	0.7935	0.7940	0.7945	0.7952	0.7958	0.7965	0.7971	0.7983	0.7995
80.7			0.9803	0.9809	0.9816	0.9822	0.9829	0.9837	0.9845	0.9852	0.9860	0.9876	0.9891
-192.45			0.9809	0.9816	0.9822	0.9828	0.9835	0.9843	0.9851	0.9859	0.9866	0.9882	0.9897
1.475			0.7920	0.7925	0.7930	0.7936	0.7941	0.7947	0.7954	0.7960	0.7966	0.7979	0.7991
80.8			0.9797	0.9803	0.9810	0.9816	0.9823	0.9831	0.9839	0.9847	0.9854	0.9870	0.9885
-192.35			0.9803	0.9810	0.9816	0.9823	0.9829	0.9837	0.9845	0.9853	0.9861	0.9876	0.9891
1.491			0.7915	0.7920	0.7926	0.7931	0.7936	0.7942	0.7949	0.7955	0.7962	0.7974	0.7986
80.9			0.9791	0.9798	0.9804	0.9811	0.9817	0.9825	0.9833	0.9841	0.9849	0.9864	0.9880
-192.25			0.9797	0.9804	0.9810	0.9817	0.9823	0.9831	0.9839	0.9847	0.9855	0.9871	0.9886
1.507			0.7910	0.7916	0.7921	0.7926	0.7931	0.7938	0.7944	0.7951	0.7957	0.7970	0.7982

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM3

BAR	0.800	1.008	2.000	4.000	6.000	8.000	10.000	12.500	15.000	17.500	20.000	25.000	30.000
KP/CM2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	12.746	15.296	17.845	20.394	25.493	30.591
81.8			8.9785	0.9792	0.9798	0.9805	0.9811	0.9819	0.9827	0.9835	0.9843	0.9859	0.9874
-192.15			0.9791	0.9798	0.9804	0.9811	0.9817	0.9825	0.9833	0.9841	0.9849	0.9865	0.9880
1.523			0.7906	0.7911	0.7916	0.7921	0.7927	0.7933	0.7940	0.7946	0.7952	0.7965	0.7977
81.1			0.9779	0.9786	0.9792	0.9799	0.9805	0.9813	0.9821	0.9829	0.9837	0.9853	0.9868
-192.05			0.9785	0.9792	0.9799	0.9805	0.9812	0.9820	0.9828	0.9836	0.9844	0.9859	0.9875
1.539			0.7901	0.7906	0.7911	0.7917	0.7922	0.7928	0.7935	0.7941	0.7946	0.7960	0.7973
81.2			0.9773	0.9780	0.9786	0.9793	0.9800	0.9808	0.9816	0.9824	0.9832	0.9847	0.9863
-191.95			0.9779	0.9786	0.9793	0.9799	0.9806	0.9814	0.9822	0.9830	0.9838	0.9854	0.9869
1.556			0.7896	0.7901	0.7907	0.7912	0.7917	0.7924	0.7930	0.7937	0.7943	0.7956	0.7968
81.3			0.9767	0.9774	0.9781	0.9787	0.9794	0.9802	0.9810	0.9818	0.9826	0.9842	0.9857
-191.85			0.9773	0.9780	0.9787	0.9793	0.9800	0.9808	0.9816	0.9824	0.9832	0.9848	0.9863
1.572			0.7891	0.7897	0.7902	0.7907	0.7912	0.7919	0.7926	0.7932	0.7938	0.7951	0.7964
81.4			0.9761	0.9768	0.9775	0.9781	0.9788	0.9796	0.9804	0.9812	0.9820	0.9836	0.9852
-191.75			0.9766	0.9774	0.9781	0.9787	0.9794	0.9802	0.9810	0.9818	0.9826	0.9842	0.9858
1.589			0.7886	0.7892	0.7897	0.7902	0.7908	0.7914	0.7921	0.7927	0.7934	0.7947	0.7959
81.5			0.9755	0.9762	0.9769	0.9775	0.9782	0.9790	0.9798	0.9806	0.9814	0.9830	0.9846
-191.65			0.9762	0.9768	0.9775	0.9782	0.9788	0.9796	0.9804	0.9813	0.9821	0.9836	0.9852
1.606			0.7882	0.7887	0.7892	0.7898	0.7903	0.7910	0.7916	0.7923	0.7929	0.7942	0.7955
81.6			0.9749	0.9756	0.9763	0.9769	0.9776	0.9784	0.9792	0.9801	0.9809	0.9825	0.9840
-191.55			0.9756	0.9762	0.9769	0.9776	0.9782	0.9791	0.9799	0.9807	0.9815	0.9831	0.9846
1.623			0.7877	0.7882	0.7888	0.7893	0.7898	0.7905	0.7911	0.7918	0.7925	0.7937	0.7950
81.7			0.9743	0.9750	0.9757	0.9764	0.9770	0.9778	0.9787	0.9795	0.9803	0.9819	0.9835
-191.45			0.9750	0.9756	0.9763	0.9770	0.9776	0.9785	0.9793	0.9801	0.9809	0.9825	0.9841
1.640			0.7872	0.7877	0.7883	0.7888	0.7894	0.7900	0.7907	0.7913	0.7920	0.7933	0.7946
81.8			0.9737	0.9744	0.9751	0.9758	0.9764	0.9773	0.9781	0.9789	0.9797	0.9813	0.9829
-191.35			0.9744	0.9750	0.9757	0.9764	0.9771	0.9779	0.9787	0.9795	0.9803	0.9819	0.9835
1.657			0.7867	0.7873	0.7878	0.7883	0.7889	0.7895	0.7902	0.7909	0.7915	0.7928	0.7941
81.9			0.9732	0.9738	0.9745	0.9752	0.9758	0.9767	0.9775	0.9783	0.9791	0.9807	0.9823
-191.25			0.9738	0.9744	0.9751	0.9758	0.9765	0.9773	0.9781	0.9789	0.9798	0.9814	0.9830
1.674			0.7862	0.7868	0.7873	0.7879	0.7884	0.7891	0.7897	0.7904	0.7911	0.7924	0.7936
82.0			0.9726	0.9732	0.9739	0.9746	0.9753	0.9761	0.9769	0.9777	0.9786	0.9802	0.9818
-191.15			0.9732	0.9739	0.9745	0.9752	0.9759	0.9767	0.9775	0.9784	0.9792	0.9808	0.9824
1.692			0.7857	0.7863	0.7868	0.7874	0.7879	0.7886	0.7893	0.7899	0.7906	0.7919	0.7932
82.1			0.9720	0.9726	0.9733	0.9740	0.9747	0.9755	0.9763	0.9772	0.9780	0.9796	0.9812
-191.05			0.9726	0.9733	0.9739	0.9746	0.9753	0.9761	0.9770	0.9778	0.9786	0.9802	0.9818
1.709			0.7853	0.7858	0.7864	0.7869	0.7875	0.7881	0.7888	0.7895	0.7901	0.7914	0.7927
82.2			0.9714	0.9720	0.9727	0.9734	0.9741	0.9749	0.9758	0.9766	0.9774	0.9790	0.9806
-190.95			0.9720	0.9727	0.9733	0.9740	0.9747	0.9755	0.9764	0.9772	0.9780	0.9796	0.9813
1.727			0.7848	0.7853	0.7859	0.7864	0.7870	0.7877	0.7883	0.7890	0.7897	0.7910	0.7923
82.3			0.9708	0.9714	0.9721	0.9728	0.9735	0.9743	0.9752	0.9760	0.9768	0.9785	0.9801
-190.85			0.9714	0.9721	0.9727	0.9734	0.9741	0.9750	0.9758	0.9766	0.9774	0.9791	0.9807
1.745			0.7843	0.7848	0.7854	0.7859	0.7865	0.7872	0.7879	0.7885	0.7892	0.7905	0.7918
82.4			0.9702	0.9708	0.9715	0.9722	0.9728	0.9737	0.9746	0.9754	0.9762	0.9779	0.9795
-190.75			0.9708	0.9715	0.9721	0.9728	0.9735	0.9744	0.9752	0.9760	0.9769	0.9785	0.9801
1.763			0.7838	0.7844	0.7849	0.7855	0.7860	0.7867	0.7874	0.7881	0.7887	0.7900	0.7913
82.5			0.9695	0.9702	0.9709	0.9716	0.9723	0.9732	0.9740	0.9748	0.9757	0.9773	0.9789
-190.65			0.9702	0.9709	0.9716	0.9722	0.9729	0.9738	0.9746	0.9755	0.9763	0.9779	0.9795
1.781			0.7833	0.7839	0.7844	0.7850	0.7855	0.7862	0.7869	0.7876	0.7883	0.7896	0.7909
82.6			0.9689	0.9696	0.9703	0.9710	0.9717	0.9726	0.9734	0.9743	0.9751	0.9767	0.9784
-190.55			0.9696	0.9703	0.9710	0.9716	0.9723	0.9732	0.9740	0.9749	0.9757	0.9774	0.9790
1.800			0.7828	0.7834	0.7840	0.7845	0.7851	0.7858	0.7864	0.7871	0.7878	0.7891	0.7904
82.7			0.9683	0.9690	0.9697	0.9704	0.9711	0.9720	0.9728	0.9737	0.9745	0.9762	0.9778
-190.45			0.9690	0.9697	0.9704	0.9710	0.9717	0.9726	0.9734	0.9743	0.9751	0.9768	0.9784
1.818			0.7823	0.7829	0.7835	0.7840	0.7846	0.7853	0.7860	0.7866	0.7873	0.7887	0.7900
82.8			0.9677	0.9684	0.9691	0.9698	0.9705	0.9714	0.9722	0.9731	0.9739	0.9756	0.9772
-190.35			0.9684	0.9691	0.9698	0.9705	0.9711	0.9720	0.9729	0.9737	0.9745	0.9762	0.9778
1.837			0.7819	0.7824	0.7830	0.7835	0.7841	0.7848	0.7855	0.7862	0.7868	0.7882	0.7895
82.9			0.9671	0.9678	0.9685	0.9692	0.9699	0.9708	0.9716	0.9725	0.9733	0.9750	0.9766
-190.25			0.9677	0.9685	0.9692	0.9699	0.9705	0.9714	0.9723	0.9731	0.9740	0.9756	0.9773
1.856			0.7814	0.7819	0.7825	0.7831	0.7836	0.7843	0.7850	0.7857	0.7864	0.7877	0.7890

TABLE ENTRIES

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	12.500	15.000	17.500	20.000	25.000	30.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	12.746	15.296	17.845	20.394	25.493	30.591
83.0			0.9665	0.9672	0.9679	0.9686	0.9693	0.9702	0.9711	0.9719	0.9728	0.9744	0.9761
-190.15			0.9671	0.9679	0.9686	0.9693	0.9700	0.9708	0.9717	0.9725	0.9734	0.9750	0.9767
1.875			0.7809	0.7814	0.7820	0.7826	0.7831	0.7838	0.7845	0.7852	0.7859	0.7873	0.7886
83.1			0.9659	0.9666	0.9673	0.9680	0.9687	0.9696	0.9705	0.9713	0.9722	0.9738	0.9755
-190.05			0.9665	0.9672	0.9680	0.9687	0.9694	0.9702	0.9711	0.9719	0.9728	0.9745	0.9761
1.894			0.7804	0.7810	0.7815	0.7821	0.7827	0.7834	0.7841	0.7847	0.7854	0.7868	0.7881
83.2			0.9653	0.9660	0.9667	0.9674	0.9681	0.9690	0.9699	0.9707	0.9716	0.9733	0.9749
-189.95			0.9659	0.9666	0.9674	0.9681	0.9688	0.9696	0.9705	0.9714	0.9722	0.9739	0.9755
1.913			0.7799	0.7805	0.7810	0.7816	0.7822	0.7829	0.7836	0.7843	0.7850	0.7863	0.7877
83.3			0.9647	0.9654	0.9661	0.9668	0.9676	0.9684	0.9693	0.9702	0.9710	0.9727	0.9744
-189.85			0.9653	0.9660	0.9668	0.9675	0.9682	0.9690	0.9699	0.9708	0.9716	0.9733	0.9750
1.932			0.7794	0.7800	0.7806	0.7811	0.7817	0.7824	0.7831	0.7838	0.7845	0.7859	0.7872
83.4			0.9641	0.9648	0.9655	0.9662	0.9670	0.9678	0.9687	0.9696	0.9704	0.9721	0.9738
-189.75			0.9647	0.9654	0.9661	0.9669	0.9676	0.9684	0.9693	0.9702	0.9710	0.9727	0.9744
1.952			0.7789	0.7795	0.7801	0.7806	0.7812	0.7819	0.7826	0.7833	0.7840	0.7854	0.7867
83.5			0.9635	0.9642	0.9649	0.9656	0.9664	0.9672	0.9681	0.9690	0.9698	0.9715	0.9732
-189.65			0.9641	0.9648	0.9655	0.9663	0.9670	0.9678	0.9687	0.9696	0.9705	0.9722	0.9738
1.971			0.7784	0.7790	0.7796	0.7802	0.7807	0.7814	0.7821	0.7828	0.7835	0.7849	0.7863
83.6			0.9629	0.9636	0.9643	0.9650	0.9658	0.9666	0.9675	0.9684	0.9692	0.9710	0.9726
-189.55			0.9635	0.9642	0.9649	0.9657	0.9664	0.9673	0.9681	0.9690	0.9699	0.9716	0.9733
1.991			0.7779	0.7785	0.7791	0.7797	0.7802	0.7810	0.7817	0.7824	0.7831	0.7844	0.7858
83.7				0.9630	0.9637	0.9644	0.9652	0.9660	0.9669	0.9678	0.9687	0.9704	0.9721
-189.45				0.9636	0.9643	0.9651	0.9658	0.9667	0.9675	0.9684	0.9693	0.9710	0.9727
2.011				0.7780	0.7786	0.7792	0.7798	0.7805	0.7812	0.7819	0.7826	0.7840	0.7853
83.8				0.9624	0.9631	0.9638	0.9646	0.9654	0.9663	0.9672	0.9681	0.9698	0.9715
-189.35				0.9630	0.9637	0.9645	0.9652	0.9661	0.9669	0.9678	0.9687	0.9704	0.9721
2.031				0.7775	0.7781	0.7787	0.7793	0.7800	0.7807	0.7814	0.7821	0.7835	0.7849
83.9				0.9618	0.9625	0.9632	0.9640	0.9648	0.9657	0.9666	0.9675	0.9692	0.9709
-189.25				0.9624	0.9631	0.9638	0.9646	0.9655	0.9663	0.9672	0.9681	0.9698	0.9715
2.052				0.7770	0.7776	0.7782	0.7788	0.7795	0.7802	0.7809	0.7816	0.7830	0.7844
84.0				0.9612	0.9619	0.9626	0.9634	0.9643	0.9651	0.9660	0.9669	0.9686	0.9703
-189.15				0.9618	0.9625	0.9632	0.9640	0.9649	0.9658	0.9666	0.9675	0.9692	0.9710
2.072				0.7765	0.7771	0.7777	0.7783	0.7790	0.7798	0.7805	0.7812	0.7826	0.7839
84.1				0.9606	0.9613	0.9620	0.9628	0.9637	0.9645	0.9654	0.9663	0.9680	0.9698
-189.05				0.9612	0.9619	0.9626	0.9634	0.9643	0.9652	0.9660	0.9669	0.9687	0.9704
2.092				0.7761	0.7766	0.7772	0.7778	0.7785	0.7793	0.7800	0.7807	0.7821	0.7835
84.2				0.9600	0.9607	0.9614	0.9621	0.9631	0.9639	0.9648	0.9657	0.9675	0.9692
-188.95				0.9606	0.9613	0.9620	0.9628	0.9637	0.9646	0.9655	0.9663	0.9681	0.9698
2.113				0.7756	0.7762	0.7767	0.7773	0.7781	0.7788	0.7795	0.7802	0.7816	0.7830
84.3				0.9593	0.9601	0.9608	0.9615	0.9625	0.9634	0.9642	0.9651	0.9669	0.9686
-188.85				0.9599	0.9607	0.9614	0.9622	0.9631	0.9640	0.9649	0.9657	0.9675	0.9692
2.134				0.7751	0.7757	0.7763	0.7768	0.7776	0.7783	0.7790	0.7797	0.7812	0.7825
84.4				0.9587	0.9595	0.9602	0.9609	0.9619	0.9628	0.9637	0.9645	0.9663	0.9680
-188.75				0.9593	0.9601	0.9608	0.9616	0.9625	0.9634	0.9643	0.9652	0.9669	0.9686
2.155				0.7746	0.7752	0.7758	0.7764	0.7771	0.7779	0.7785	0.7793	0.7807	0.7821
84.5				0.9581	0.9589	0.9596	0.9603	0.9613	0.9622	0.9631	0.9639	0.9657	0.9674
-188.65				0.9587	0.9595	0.9602	0.9609	0.9619	0.9628	0.9637	0.9646	0.9663	0.9681
2.176				0.7741	0.7747	0.7753	0.7759	0.7766	0.7773	0.7781	0.7788	0.7802	0.7816
84.6				0.9575	0.9582	0.9590	0.9597	0.9606	0.9616	0.9625	0.9634	0.9651	0.9669
-188.55				0.9581	0.9589	0.9596	0.9603	0.9613	0.9622	0.9631	0.9640	0.9657	0.9675
2.197				0.7736	0.7742	0.7748	0.7754	0.7761	0.7769	0.7776	0.7783	0.7797	0.7811
84.7				0.9569	0.9576	0.9584	0.9591	0.9600	0.9610	0.9619	0.9628	0.9645	0.9663
-188.45				0.9575	0.9582	0.9590	0.9597	0.9607	0.9616	0.9625	0.9634	0.9652	0.9669
2.219				0.7731	0.7737	0.7743	0.7749	0.7756	0.7764	0.7771	0.7778	0.7793	0.7807
84.8				0.9563	0.9570	0.9578	0.9585	0.9594	0.9604	0.9613	0.9622	0.9640	0.9657
-188.35				0.9569	0.9576	0.9584	0.9591	0.9601	0.9610	0.9619	0.9628	0.9646	0.9663
2.241				0.7726	0.7732	0.7738	0.7744	0.7751	0.7759	0.7766	0.7774	0.7788	0.7802
84.9				0.9557	0.9564	0.9572	0.9579	0.9588	0.9598	0.9607	0.9616	0.9634	0.9651
-188.25				0.9563	0.9570	0.9578	0.9585	0.9594	0.9604	0.9613	0.9622	0.9640	0.9657
2.262				0.7721	0.7727	0.7733	0.7739	0.7747	0.7754	0.7761	0.7769	0.7783	0.7797

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	12.500	15.000	17.500	20.000	25.000	30.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	12.746	15.296	17.845	20.394	25.493	30.591
85.0				0.9550	0.9558	0.9566	0.9573	0.9582	0.9592	0.9601	0.9610	0.9628	0.9645
-188.15				0.9556	0.9564	0.9572	0.9579	0.9588	0.9598	0.9607	0.9616	0.9634	0.9652
2.284				0.7716	0.7722	0.7728	0.7734	0.7742	0.7749	0.7757	0.7764	0.7778	0.7793
85.1				0.9544	0.9552	0.9559	0.9567	0.9576	0.9586	0.9595	0.9604	0.9622	0.9640
-188.05				0.9550	0.9558	0.9565	0.9573	0.9582	0.9592	0.9601	0.9610	0.9628	0.9646
2.306				0.7711	0.7717	0.7723	0.7729	0.7737	0.7744	0.7752	0.7759	0.7774	0.7788
85.2				0.9538	0.9546	0.9553	0.9561	0.9570	0.9580	0.9589	0.9598	0.9616	0.9634
-187.95				0.9544	0.9552	0.9559	0.9567	0.9576	0.9586	0.9595	0.9604	0.9622	0.9640
2.329				0.7706	0.7712	0.7718	0.7724	0.7732	0.7739	0.7747	0.7754	0.7769	0.7783
85.3				0.9532	0.9540	0.9547	0.9555	0.9564	0.9574	0.9583	0.9592	0.9610	0.9628
-187.85				0.9538	0.9546	0.9553	0.9561	0.9570	0.9580	0.9589	0.9598	0.9616	0.9634
2.351				0.7701	0.7707	0.7713	0.7719	0.7727	0.7735	0.7742	0.7749	0.7764	0.7779
85.4				0.9526	0.9533	0.9541	0.9549	0.9558	0.9567	0.9577	0.9586	0.9604	0.9622
-187.75				0.9532	0.9539	0.9547	0.9555	0.9564	0.9574	0.9583	0.9592	0.9610	0.9628
2.374				0.7696	0.7702	0.7708	0.7714	0.7722	0.7730	0.7737	0.7745	0.7759	0.7774
85.5				0.9519	0.9527	0.9535	0.9543	0.9552	0.9561	0.9571	0.9580	0.9598	0.9616
-187.65				0.9525	0.9533	0.9541	0.9549	0.9558	0.9567	0.9577	0.9586	0.9604	0.9622
2.396				0.7691	0.7697	0.7703	0.7710	0.7717	0.7725	0.7732	0.7740	0.7755	0.7769
85.6				0.9513	0.9521	0.9529	0.9536	0.9546	0.9555	0.9565	0.9574	0.9592	0.9610
-187.55				0.9519	0.9527	0.9535	0.9542	0.9552	0.9561	0.9571	0.9580	0.9598	0.9617
2.419				0.7686	0.7692	0.7698	0.7705	0.7712	0.7720	0.7727	0.7735	0.7750	0.7764
85.7				0.9507	0.9515	0.9523	0.9530	0.9540	0.9549	0.9559	0.9568	0.9586	0.9605
-187.45				0.9513	0.9521	0.9529	0.9536	0.9546	0.9555	0.9565	0.9574	0.9593	0.9611
2.442				0.7681	0.7687	0.7693	0.7700	0.7707	0.7715	0.7723	0.7730	0.7745	0.7760
85.8				0.9501	0.9509	0.9516	0.9524	0.9534	0.9543	0.9553	0.9562	0.9581	0.9599
-187.35				0.9507	0.9515	0.9522	0.9530	0.9540	0.9549	0.9559	0.9568	0.9587	0.9605
2.465				0.7676	0.7682	0.7688	0.7695	0.7702	0.7710	0.7718	0.7725	0.7740	0.7755
85.9				0.9495	0.9502	0.9510	0.9518	0.9528	0.9537	0.9547	0.9556	0.9575	0.9593
-187.25				0.9501	0.9508	0.9516	0.9524	0.9534	0.9543	0.9553	0.9562	0.9581	0.9599
2.489				0.7671	0.7677	0.7683	0.7690	0.7698	0.7705	0.7713	0.7720	0.7735	0.7750
86.0				0.9488	0.9496	0.9504	0.9512	0.9522	0.9531	0.9541	0.9550	0.9569	0.9587
-187.15				0.9494	0.9502	0.9510	0.9518	0.9528	0.9537	0.9547	0.9556	0.9575	0.9593
2.512				0.7666	0.7672	0.7678	0.7685	0.7693	0.7700	0.7708	0.7716	0.7731	0.7745
86.1				0.9482	0.9490	0.9498	0.9506	0.9515	0.9525	0.9535	0.9544	0.9563	0.9581
-187.05				0.9488	0.9496	0.9504	0.9512	0.9521	0.9531	0.9541	0.9550	0.9569	0.9587
2.536				0.7661	0.7667	0.7673	0.7680	0.7688	0.7695	0.7703	0.7711	0.7726	0.7741
86.2				0.9476	0.9484	0.9492	0.9500	0.9509	0.9519	0.9529	0.9538	0.9557	0.9575
-186.95				0.9482	0.9490	0.9498	0.9506	0.9515	0.9525	0.9535	0.9544	0.9563	0.9581
2.560				0.7656	0.7662	0.7668	0.7675	0.7683	0.7690	0.7698	0.7706	0.7721	0.7736
86.3				0.9469	0.9477	0.9485	0.9493	0.9503	0.9513	0.9522	0.9532	0.9551	0.9569
-186.85				0.9475	0.9484	0.9491	0.9499	0.9509	0.9519	0.9528	0.9538	0.9557	0.9575
2.584				0.7651	0.7657	0.7663	0.7670	0.7678	0.7686	0.7693	0.7701	0.7716	0.7731
86.4				0.9463	0.9471	0.9479	0.9487	0.9497	0.9507	0.9516	0.9526	0.9545	0.9563
-186.75				0.9469	0.9477	0.9485	0.9493	0.9503	0.9513	0.9522	0.9532	0.9551	0.9569
2.608				0.7645	0.7652	0.7658	0.7665	0.7673	0.7681	0.7688	0.7696	0.7711	0.7726
86.5				0.9457	0.9465	0.9473	0.9481	0.9491	0.9501	0.9510	0.9520	0.9539	0.9558
-186.65				0.9463	0.9471	0.9479	0.9487	0.9497	0.9507	0.9516	0.9526	0.9545	0.9564
2.633				0.7640	0.7647	0.7653	0.7660	0.7668	0.7676	0.7684	0.7691	0.7707	0.7722
86.6				0.9451	0.9459	0.9467	0.9475	0.9485	0.9494	0.9504	0.9514	0.9533	0.9552
-186.55				0.9457	0.9465	0.9473	0.9481	0.9491	0.9501	0.9510	0.9520	0.9539	0.9558
2.657				0.7635	0.7642	0.7648	0.7655	0.7663	0.7671	0.7679	0.7686	0.7702	0.7717
86.7				0.9444	0.9452	0.9461	0.9469	0.9479	0.9488	0.9498	0.9508	0.9527	0.9546
-186.45				0.9450	0.9458	0.9467	0.9475	0.9485	0.9494	0.9504	0.9514	0.9533	0.9552
2.682				0.7630	0.7637	0.7643	0.7650	0.7658	0.7666	0.7674	0.7681	0.7697	0.7712
86.8				0.9438	0.9446	0.9454	0.9462	0.9472	0.9482	0.9492	0.9502	0.9521	0.9540
-186.35				0.9444	0.9452	0.9460	0.9468	0.9478	0.9488	0.9498	0.9508	0.9527	0.9546
2.707				0.7625	0.7632	0.7638	0.7645	0.7653	0.7661	0.7669	0.7677	0.7692	0.7707
86.9				0.9432	0.9440	0.9448	0.9456	0.9466	0.9476	0.9486	0.9496	0.9515	0.9534
-186.25				0.9438	0.9446	0.9454	0.9462	0.9472	0.9482	0.9492	0.9502	0.9521	0.9540
2.732				0.7620	0.7627	0.7633	0.7640	0.7648	0.7656	0.7664	0.7672	0.7687	0.7703

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/M^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	12.500	15.000	17.500	20.000	25.000	30.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	12.746	15.296	17.845	20.394	25.493	30.591
87.0				0.9425	0.9434	0.9442	0.9450	0.9460	0.9470	0.9480	0.9490	0.9509	0.9528
-186.15				0.9431	0.9440	0.9448	0.9456	0.9466	0.9476	0.9486	0.9496	0.9515	0.9534
2.757				0.7615	0.7622	0.7628	0.7635	0.7643	0.7651	0.7659	0.7667	0.7682	0.7698
87.1				0.9419	0.9427	0.9436	0.9444	0.9454	0.9464	0.9474	0.9484	0.9503	0.9522
-186.05				0.9425	0.9433	0.9443	0.9450	0.9460	0.9470	0.9480	0.9490	0.9509	0.9528
2.783				0.7610	0.7616	0.7623	0.7630	0.7638	0.7646	0.7654	0.7662	0.7678	0.7693
87.2				0.9413	0.9421	0.9429	0.9437	0.9448	0.9458	0.9468	0.9477	0.9497	0.9516
-185.95				0.9419	0.9427	0.9435	0.9443	0.9454	0.9464	0.9474	0.9483	0.9503	0.9522
2.808				0.7605	0.7611	0.7618	0.7625	0.7633	0.7641	0.7649	0.7657	0.7673	0.7688
87.3				0.9406	0.9415	0.9423	0.9431	0.9441	0.9451	0.9461	0.9471	0.9491	0.9510
-185.85				0.9412	0.9421	0.9429	0.9437	0.9447	0.9457	0.9467	0.9477	0.9497	0.9516
2.834				0.7600	0.7606	0.7613	0.7620	0.7628	0.7636	0.7644	0.7652	0.7668	0.7683
87.4				0.9400	0.9408	0.9417	0.9425	0.9435	0.9445	0.9455	0.9465	0.9485	0.9504
-185.75				0.9406	0.9414	0.9423	0.9431	0.9441	0.9451	0.9461	0.9471	0.9491	0.9510
2.860				0.7594	0.7601	0.7608	0.7615	0.7623	0.7631	0.7639	0.7647	0.7663	0.7679
87.5				0.9394	0.9402	0.9410	0.9419	0.9429	0.9439	0.9449	0.9459	0.9479	0.9498
-185.65				0.9400	0.9408	0.9416	0.9425	0.9435	0.9445	0.9455	0.9465	0.9485	0.9504
2.886				0.7589	0.7596	0.7603	0.7609	0.7618	0.7626	0.7634	0.7642	0.7658	0.7674
87.6				0.9387	0.9396	0.9404	0.9412	0.9423	0.9433	0.9443	0.9453	0.9473	0.9492
-185.55				0.9393	0.9402	0.9410	0.9418	0.9429	0.9439	0.9449	0.9459	0.9479	0.9498
2.912				0.7584	0.7591	0.7598	0.7604	0.7613	0.7621	0.7629	0.7637	0.7653	0.7669
87.7				0.9381	0.9389	0.9398	0.9406	0.9416	0.9427	0.9437	0.9447	0.9467	0.9486
-185.45				0.9387	0.9395	0.9404	0.9412	0.9422	0.9433	0.9443	0.9453	0.9473	0.9492
2.939				0.7579	0.7586	0.7593	0.7599	0.7608	0.7616	0.7624	0.7632	0.7648	0.7664
87.8				0.9374	0.9383	0.9391	0.9400	0.9410	0.9420	0.9431	0.9441	0.9461	0.9480
-185.35				0.9380	0.9389	0.9397	0.9406	0.9416	0.9426	0.9437	0.9447	0.9467	0.9486
2.965				0.7574	0.7581	0.7587	0.7594	0.7603	0.7611	0.7619	0.7627	0.7643	0.7659
87.9				0.9368	0.9377	0.9385	0.9394	0.9404	0.9414	0.9424	0.9435	0.9455	0.9474
-185.25				0.9374	0.9383	0.9391	0.9399	0.9410	0.9420	0.9430	0.9441	0.9461	0.9480
2.992				0.7569	0.7576	0.7582	0.7589	0.7598	0.7606	0.7614	0.7622	0.7639	0.7654
88.0				0.9362	0.9370	0.9379	0.9387	0.9398	0.9408	0.9418	0.9428	0.9449	0.9468
-185.15				0.9368	0.9376	0.9385	0.9393	0.9404	0.9414	0.9424	0.9434	0.9455	0.9474
3.019				0.7563	0.7570	0.7577	0.7584	0.7593	0.7601	0.7609	0.7617	0.7634	0.7650
88.1				0.9355	0.9364	0.9372	0.9381	0.9391	0.9402	0.9412	0.9422	0.9442	0.9462
-185.05				0.9361	0.9370	0.9378	0.9387	0.9397	0.9408	0.9418	0.9428	0.9448	0.9468
3.046				0.7558	0.7565	0.7572	0.7579	0.7587	0.7596	0.7604	0.7612	0.7628	0.7645
88.2				0.9349	0.9357	0.9366	0.9375	0.9385	0.9396	0.9406	0.9416	0.9436	0.9456
-184.95				0.9355	0.9363	0.9372	0.9381	0.9391	0.9402	0.9412	0.9422	0.9442	0.9462
3.074				0.7553	0.7560	0.7567	0.7574	0.7582	0.7591	0.7599	0.7607	0.7624	0.7640
88.3				0.9342	0.9351	0.9360	0.9368	0.9379	0.9389	0.9400	0.9410	0.9430	0.9450
-184.85				0.9348	0.9357	0.9366	0.9374	0.9385	0.9395	0.9406	0.9416	0.9436	0.9456
3.101				0.7548	0.7555	0.7562	0.7569	0.7577	0.7586	0.7594	0.7602	0.7619	0.7635
88.4				0.9336	0.9345	0.9353	0.9362	0.9373	0.9383	0.9394	0.9404	0.9424	0.9444
-184.75				0.9342	0.9351	0.9359	0.9368	0.9378	0.9389	0.9399	0.9410	0.9430	0.9450
3.129				0.7543	0.7550	0.7557	0.7564	0.7572	0.7581	0.7589	0.7598	0.7614	0.7630
88.5				0.9329	0.9338	0.9347	0.9356	0.9366	0.9377	0.9387	0.9398	0.9418	0.9438
-184.65				0.9335	0.9344	0.9353	0.9361	0.9372	0.9383	0.9393	0.9404	0.9424	0.9444
3.157				0.7537	0.7545	0.7552	0.7558	0.7567	0.7576	0.7584	0.7593	0.7609	0.7625
88.6				0.9323	0.9332	0.9341	0.9349	0.9360	0.9371	0.9381	0.9391	0.9412	0.9432
-184.55				0.9329	0.9338	0.9346	0.9355	0.9366	0.9376	0.9387	0.9397	0.9418	0.9438
3.185				0.7532	0.7539	0.7546	0.7553	0.7562	0.7571	0.7579	0.7588	0.7604	0.7620
88.7				0.9317	0.9325	0.9334	0.9343	0.9354	0.9364	0.9375	0.9385	0.9406	0.9426
-184.45				0.9322	0.9331	0.9340	0.9349	0.9360	0.9370	0.9381	0.9391	0.9412	0.9432
3.213				0.7527	0.7534	0.7541	0.7548	0.7557	0.7566	0.7574	0.7583	0.7599	0.7615
88.8				0.9310	0.9319	0.9328	0.9336	0.9347	0.9358	0.9369	0.9379	0.9400	0.9420
-184.35				0.9316	0.9325	0.9334	0.9342	0.9353	0.9364	0.9375	0.9385	0.9406	0.9426
3.242				0.7522	0.7529	0.7536	0.7543	0.7552	0.7560	0.7569	0.7577	0.7594	0.7611
88.9				0.9304	0.9312	0.9321	0.9330	0.9341	0.9352	0.9362	0.9373	0.9394	0.9414
-184.25				0.9309	0.9318	0.9327	0.9336	0.9347	0.9358	0.9368	0.9379	0.9400	0.9420
3.270				0.7516	0.7524	0.7531	0.7538	0.7547	0.7555	0.7564	0.7572	0.7589	0.7606

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	12.500	15.000	17.500	20.000	25.000	30.000
KP/CM2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	12.746	15.296	17.845	20.394	25.493	30.591
89.0				0.9297	0.9306	0.9315	0.9324	0.9335	0.9345	0.9356	0.9367	0.9387	0.9408
-184.15				0.9303	0.9312	0.9321	0.9330	0.9341	0.9351	0.9362	0.9373	0.9393	0.9414
3.299				0.7511	0.7516	0.7526	0.7533	0.7542	0.7550	0.7559	0.7567	0.7584	0.7601
89.1				0.9291	0.9300	0.9308	0.9317	0.9328	0.9339	0.9350	0.9360	0.9381	0.9402
-184.05				0.9296	0.9305	0.9314	0.9323	0.9334	0.9345	0.9356	0.9366	0.9387	0.9408
3.328				0.7506	0.7513	0.7520	0.7528	0.7536	0.7545	0.7554	0.7562	0.7579	0.7596
89.2				0.9284	0.9293	0.9302	0.9311	0.9322	0.9333	0.9344	0.9354	0.9375	0.9396
-183.95				0.9290	0.9299	0.9308	0.9317	0.9328	0.9339	0.9349	0.9360	0.9381	0.9402
3.357				0.7501	0.7508	0.7515	0.7522	0.7531	0.7540	0.7549	0.7557	0.7574	0.7591
89.3				0.9277	0.9287	0.9296	0.9304	0.9316	0.9326	0.9337	0.9348	0.9369	0.9390
-183.85				0.9283	0.9292	0.9301	0.9310	0.9321	0.9332	0.9343	0.9354	0.9375	0.9396
3.387				0.7495	0.7503	0.7510	0.7517	0.7526	0.7535	0.7544	0.7552	0.7569	0.7586
89.4				0.9271	0.9280	0.9289	0.9298	0.9309	0.9320	0.9331	0.9342	0.9363	0.9384
-183.75				0.9277	0.9286	0.9295	0.9304	0.9315	0.9326	0.9337	0.9348	0.9369	0.9390
3.416				0.7490	0.7498	0.7505	0.7512	0.7521	0.7530	0.7539	0.7547	0.7564	0.7581
89.5				0.9264	0.9274	0.9283	0.9292	0.9303	0.9314	0.9325	0.9335	0.9357	0.9378
-183.65				0.9270	0.9279	0.9289	0.9298	0.9309	0.9320	0.9331	0.9341	0.9363	0.9384
3.446				0.7485	0.7492	0.7500	0.7507	0.7516	0.7525	0.7534	0.7542	0.7559	0.7576
89.6				0.9258	0.9267	0.9276	0.9285	0.9296	0.9307	0.9318	0.9329	0.9351	0.9371
-183.55				0.9264	0.9273	0.9282	0.9291	0.9302	0.9313	0.9324	0.9335	0.9356	0.9377
3.476				0.7480	0.7487	0.7494	0.7502	0.7511	0.7520	0.7528	0.7537	0.7554	0.7571
89.7				0.9251	0.9261	0.9270	0.9279	0.9290	0.9301	0.9312	0.9323	0.9344	0.9365
-183.45				0.9257	0.9266	0.9276	0.9285	0.9296	0.9307	0.9318	0.9329	0.9350	0.9371
3.506				0.7474	0.7482	0.7489	0.7496	0.7505	0.7514	0.7523	0.7532	0.7549	0.7566
89.8				0.9245	0.9254	0.9263	0.9272	0.9284	0.9295	0.9306	0.9317	0.9338	0.9359
-183.35				0.9251	0.9260	0.9269	0.9278	0.9289	0.9301	0.9312	0.9323	0.9344	0.9365
3.536				0.7469	0.7476	0.7484	0.7491	0.7500	0.7509	0.7518	0.7527	0.7544	0.7561
89.9				0.9238	0.9247	0.9257	0.9266	0.9277	0.9288	0.9299	0.9310	0.9332	0.9353
-183.25				0.9244	0.9253	0.9263	0.9272	0.9283	0.9294	0.9305	0.9316	0.9338	0.9359
3.567				0.7464	0.7471	0.7479	0.7486	0.7495	0.7504	0.7513	0.7522	0.7539	0.7557
90.0				0.9232	0.9241	0.9250	0.9259	0.9271	0.9282	0.9293	0.9304	0.9326	0.9347
-183.15				0.9237	0.9247	0.9256	0.9265	0.9277	0.9288	0.9299	0.9310	0.9332	0.9353
3.598				0.7458	0.7466	0.7473	0.7481	0.7490	0.7499	0.7508	0.7517	0.7534	0.7552
90.1				0.9225	0.9234	0.9244	0.9253	0.9264	0.9276	0.9287	0.9298	0.9320	0.9341
-183.05				0.9231	0.9240	0.9249	0.9259	0.9270	0.9281	0.9293	0.9304	0.9325	0.9347
3.629				0.7453	0.7461	0.7468	0.7476	0.7485	0.7494	0.7503	0.7512	0.7529	0.7547
90.2				0.9218	0.9228	0.9237	0.9246	0.9258	0.9269	0.9280	0.9291	0.9313	0.9335
-182.95				0.9224	0.9234	0.9243	0.9252	0.9264	0.9275	0.9286	0.9297	0.9319	0.9341
3.660				0.7448	0.7455	0.7463	0.7470	0.7480	0.7489	0.7498	0.7507	0.7524	0.7542
90.3				0.9212	0.9221	0.9231	0.9240	0.9251	0.9263	0.9274	0.9285	0.9307	0.9329
-182.85				0.9218	0.9227	0.9236	0.9246	0.9257	0.9269	0.9280	0.9291	0.9313	0.9334
3.691				0.7442	0.7450	0.7457	0.7465	0.7474	0.7483	0.7493	0.7502	0.7519	0.7537
90.4				0.9205	0.9215	0.9224	0.9233	0.9245	0.9256	0.9268	0.9279	0.9301	0.9322
-182.75				0.9211	0.9220	0.9230	0.9239	0.9251	0.9262	0.9273	0.9285	0.9307	0.9328
3.722				0.7437	0.7445	0.7452	0.7460	0.7469	0.7478	0.7487	0.7496	0.7514	0.7532
90.5				0.9198	0.9208	0.9217	0.9227	0.9238	0.9250	0.9261	0.9272	0.9295	0.9316
-182.65				0.9204	0.9214	0.9223	0.9233	0.9244	0.9256	0.9267	0.9278	0.9300	0.9322
3.754				0.7432	0.7439	0.7447	0.7454	0.7464	0.7473	0.7482	0.7491	0.7509	0.7527
90.6				0.9192	0.9201	0.9211	0.9220	0.9232	0.9243	0.9255	0.9266	0.9288	0.9310
-182.55				0.9198	0.9207	0.9217	0.9226	0.9238	0.9249	0.9261	0.9272	0.9294	0.9316
3.786				0.7426	0.7434	0.7442	0.7449	0.7459	0.7468	0.7477	0.7486	0.7504	0.7522
90.7				0.9185	0.9195	0.9204	0.9214	0.9225	0.9237	0.9248	0.9260	0.9282	0.9304
-182.45				0.9191	0.9201	0.9210	0.9220	0.9231	0.9243	0.9254	0.9266	0.9288	0.9310
3.818				0.7421	0.7429	0.7436	0.7444	0.7453	0.7463	0.7472	0.7481	0.7499	0.7517
90.8				0.9178	0.9188	0.9198	0.9207	0.9219	0.9231	0.9242	0.9253	0.9276	0.9298
-182.35				0.9184	0.9194	0.9203	0.9213	0.9225	0.9236	0.9248	0.9259	0.9282	0.9304
3.850				0.7415	0.7423	0.7431	0.7439	0.7448	0.7457	0.7467	0.7476	0.7494	0.7512
90.9				0.9172	0.9181	0.9191	0.9201	0.9212	0.9224	0.9236	0.9247	0.9270	0.9292
-182.25				0.9178	0.9187	0.9197	0.9206	0.9218	0.9230	0.9241	0.9253	0.9275	0.9297
3.883				0.7410	0.7418	0.7426	0.7433	0.7443	0.7452	0.7462	0.7471	0.7488	0.7507

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES
1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	12.500	15.000	17.500	20.000	25.000	30.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	12.746	15.296	17.845	20.394	25.493	30.591
91.0				0.9165	0.9175	0.9184	0.9194	0.9206	0.9218	0.9229	0.9241	0.9263	0.9285
-182.15				0.9171	0.9181	0.9190	0.9200	0.9212	0.9223	0.9235	0.9247	0.9269	0.9291
3.916				0.7405	0.7412	0.7420	0.7428	0.7438	0.7447	0.7456	0.7466	0.7484	0.7502
91.1				0.9158	0.9168	0.9178	0.9187	0.9199	0.9211	0.9223	0.9234	0.9257	0.9279
-182.05				0.9164	0.9174	0.9184	0.9193	0.9205	0.9217	0.9229	0.9240	0.9263	0.9285
3.949				0.7399	0.7407	0.7415	0.7423	0.7432	0.7442	0.7451	0.7461	0.7479	0.7497
91.2				0.9152	0.9161	0.9171	0.9181	0.9193	0.9205	0.9216	0.9228	0.9251	0.9273
-181.95				0.9157	0.9167	0.9177	0.9187	0.9199	0.9210	0.9222	0.9234	0.9257	0.9279
3.982				0.7394	0.7402	0.7410	0.7417	0.7427	0.7437	0.7446	0.7455	0.7474	0.7492
91.3					0.9155	0.9165	0.9174	0.9186	0.9198	0.9210	0.9221	0.9244	0.9267
-181.85					0.9161	0.9170	0.9180	0.9192	0.9204	0.9216	0.9227	0.9250	0.9273
4.015					0.7396	0.7404	0.7412	0.7422	0.7431	0.7441	0.7450	0.7469	0.7487
91.4					0.9148	0.9158	0.9168	0.9180	0.9192	0.9203	0.9215	0.9238	0.9260
-181.75					0.9154	0.9164	0.9173	0.9186	0.9197	0.9209	0.9221	0.9244	0.9266
4.048					0.7391	0.7399	0.7407	0.7416	0.7426	0.7436	0.7445	0.7464	0.7482
91.5					0.9141	0.9151	0.9161	0.9173	0.9185	0.9197	0.9209	0.9232	0.9254
-181.65					0.9147	0.9157	0.9167	0.9179	0.9191	0.9203	0.9215	0.9238	0.9260
4.082					0.7385	0.7393	0.7401	0.7411	0.7421	0.7430	0.7440	0.7458	0.7477
91.6					0.9135	0.9145	0.9154	0.9167	0.9179	0.9190	0.9202	0.9225	0.9248
-181.55					0.9140	0.9150	0.9160	0.9172	0.9184	0.9196	0.9208	0.9231	0.9254
4.116					0.7380	0.7388	0.7396	0.7406	0.7416	0.7425	0.7435	0.7453	0.7472
91.7					0.9128	0.9138	0.9148	0.9160	0.9172	0.9184	0.9196	0.9219	0.9242
-181.45					0.9134	0.9144	0.9154	0.9166	0.9178	0.9190	0.9202	0.9225	0.9248
4.150					0.7375	0.7383	0.7391	0.7400	0.7410	0.7420	0.7429	0.7448	0.7467
91.8					0.9121	0.9131	0.9141	0.9153	0.9166	0.9178	0.9189	0.9213	0.9235
-181.35					0.9127	0.9137	0.9147	0.9159	0.9171	0.9183	0.9195	0.9219	0.9241
4.185					0.7369	0.7377	0.7385	0.7395	0.7405	0.7415	0.7424	0.7443	0.7461
91.9					0.9114	0.9124	0.9134	0.9147	0.9159	0.9171	0.9183	0.9206	0.9229
-181.25					0.9120	0.9130	0.9140	0.9153	0.9165	0.9177	0.9189	0.9212	0.9235
4.219					0.7364	0.7372	0.7380	0.7390	0.7400	0.7409	0.7419	0.7438	0.7456
92.0					0.9108	0.9118	0.9128	0.9140	0.9152	0.9164	0.9176	0.9200	0.9223
-181.15					0.9113	0.9124	0.9134	0.9146	0.9158	0.9170	0.9182	0.9206	0.9229
4.254					0.7358	0.7366	0.7374	0.7384	0.7394	0.7404	0.7414	0.7433	0.7451
92.1					0.9101	0.9111	0.9121	0.9134	0.9146	0.9158	0.9170	0.9194	0.9217
-181.05					0.9107	0.9117	0.9127	0.9139	0.9152	0.9164	0.9176	0.9199	0.9223
4.289					0.7353	0.7361	0.7369	0.7378	0.7389	0.7399	0.7409	0.7428	0.7446
92.2					0.9094	0.9104	0.9114	0.9127	0.9139	0.9151	0.9163	0.9187	0.9210
-180.95					0.9100	0.9110	0.9120	0.9133	0.9145	0.9157	0.9169	0.9193	0.9216
4.324					0.7347	0.7355	0.7364	0.7374	0.7384	0.7394	0.7403	0.7422	0.7441
92.3					0.9087	0.9098	0.9108	0.9120	0.9133	0.9145	0.9157	0.9181	0.9204
-180.85					0.9093	0.9103	0.9113	0.9126	0.9138	0.9151	0.9163	0.9187	0.9210
4.359					0.7342	0.7350	0.7358	0.7368	0.7378	0.7388	0.7398	0.7417	0.7436
92.4					0.9080	0.9091	0.9101	0.9114	0.9126	0.9138	0.9151	0.9174	0.9198
-180.75					0.9086	0.9097	0.9107	0.9119	0.9132	0.9144	0.9156	0.9180	0.9204
4.395					0.7336	0.7345	0.7353	0.7363	0.7373	0.7383	0.7393	0.7412	0.7431
92.5					0.9074	0.9084	0.9094	0.9107	0.9119	0.9132	0.9144	0.9168	0.9191
-180.65					0.9079	0.9090	0.9100	0.9113	0.9125	0.9138	0.9150	0.9174	0.9197
4.431					0.7331	0.7339	0.7347	0.7358	0.7368	0.7378	0.7388	0.7407	0.7426
92.6					0.9067	0.9077	0.9088	0.9100	0.9113	0.9125	0.9137	0.9162	0.9185
-180.55					0.9073	0.9083	0.9093	0.9106	0.9119	0.9131	0.9143	0.9167	0.9191
4.467					0.7325	0.7334	0.7342	0.7352	0.7362	0.7372	0.7382	0.7402	0.7421
92.7					0.9060	0.9070	0.9081	0.9094	0.9106	0.9119	0.9131	0.9155	0.9179
-180.45					0.9066	0.9076	0.9087	0.9099	0.9112	0.9124	0.9137	0.9161	0.9185
4.503					0.7320	0.7328	0.7336	0.7347	0.7357	0.7367	0.7377	0.7397	0.7416
92.8					0.9053	0.9064	0.9074	0.9087	0.9100	0.9112	0.9124	0.9149	0.9172
-180.35					0.9059	0.9069	0.9080	0.9093	0.9105	0.9118	0.9130	0.9155	0.9178
4.540					0.7314	0.7323	0.7331	0.7341	0.7352	0.7362	0.7372	0.7391	0.7411
92.9					0.9046	0.9057	0.9067	0.9080	0.9093	0.9105	0.9118	0.9142	0.9166
-180.25					0.9052	0.9063	0.9073	0.9086	0.9099	0.9111	0.9124	0.9148	0.9172
4.576					0.7309	0.7317	0.7326	0.7336	0.7346	0.7356	0.7366	0.7386	0.7405

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM**3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	12.500	15.000	17.500	20.000	25.000	30.000
KP/CM2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	12.746	15.296	17.845	20.394	25.493	30.591
93.0					0.9039	0.9050	0.9060	0.9073	0.9086	0.9099	0.9111	0.9136	0.9160
-180.15					0.9045	0.9056	0.9066	0.9079	0.9092	0.9105	0.9117	0.9142	0.9166
4.613					0.7303	0.7312	0.7320	0.7331	0.7341	0.7351	0.7361	0.7381	0.7400
93.1					0.9032	0.9043	0.9054	0.9067	0.9080	0.9092	0.9105	0.9129	0.9153
-180.05					0.9038	0.9049	0.9059	0.9072	0.9085	0.9098	0.9111	0.9135	0.9159
4.650					0.7297	0.7306	0.7315	0.7325	0.7335	0.7346	0.7356	0.7376	0.7395
93.2					0.9026	0.9036	0.9047	0.9060	0.9073	0.9086	0.9098	0.9123	0.9147
-179.95					0.9031	0.9042	0.9053	0.9066	0.9079	0.9091	0.9104	0.9129	0.9153
4.688					0.7292	0.7301	0.7309	0.7320	0.7330	0.7340	0.7351	0.7371	0.7390
93.3					0.9019	0.9029	0.9040	0.9053	0.9066	0.9079	0.9092	0.9116	0.9141
-179.85					0.9024	0.9035	0.9046	0.9059	0.9072	0.9085	0.9097	0.9122	0.9146
4.725					0.7286	0.7295	0.7304	0.7314	0.7325	0.7335	0.7345	0.7365	0.7385
93.4					0.9012	0.9023	0.9033	0.9046	0.9059	0.9072	0.9085	0.9110	0.9134
-179.75					0.9017	0.9028	0.9039	0.9052	0.9065	0.9078	0.9091	0.9116	0.9140
4.763					0.7281	0.7289	0.7298	0.7309	0.7319	0.7330	0.7340	0.7360	0.7380
93.5					0.9005	0.9016	0.9026	0.9040	0.9053	0.9066	0.9078	0.9103	0.9128
-179.65					0.9011	0.9021	0.9032	0.9045	0.9058	0.9071	0.9084	0.9109	0.9134
4.801					0.7275	0.7284	0.7293	0.7303	0.7314	0.7324	0.7335	0.7355	0.7375
93.6					0.8998	0.9009	0.9020	0.9033	0.9046	0.9059	0.9072	0.9097	0.9121
-179.55					0.9004	0.9014	0.9025	0.9039	0.9052	0.9065	0.9078	0.9103	0.9127
4.839					0.7270	0.7278	0.7287	0.7298	0.7308	0.7319	0.7329	0.7350	0.7369
93.7					0.8991	0.9002	0.9013	0.9026	0.9039	0.9052	0.9065	0.9090	0.9115
-179.45					0.8997	0.9008	0.9018	0.9032	0.9045	0.9058	0.9071	0.9096	0.9121
4.877					0.7264	0.7273	0.7281	0.7292	0.7303	0.7313	0.7324	0.7344	0.7364
93.8					0.8984	0.8995	0.9006	0.9019	0.9033	0.9046	0.9059	0.9084	0.9109
-179.35					0.8990	0.9001	0.9012	0.9025	0.9038	0.9051	0.9064	0.9090	0.9114
4.916					0.7258	0.7267	0.7276	0.7287	0.7298	0.7308	0.7319	0.7339	0.7359
93.9					0.8977	0.8988	0.8999	0.9012	0.9026	0.9039	0.9052	0.9077	0.9102
-179.25					0.8983	0.8994	0.9005	0.9018	0.9031	0.9045	0.9058	0.9083	0.9108
4.955					0.7253	0.7262	0.7270	0.7281	0.7292	0.7303	0.7313	0.7334	0.7354
94.0					0.8970	0.8981	0.8992	0.9006	0.9019	0.9032	0.9045	0.9071	0.9096
-179.15					0.8976	0.8987	0.8998	0.9011	0.9025	0.9038	0.9051	0.9077	0.9102
4.994					0.7247	0.7256	0.7265	0.7276	0.7287	0.7297	0.7308	0.7328	0.7349
94.1					0.8963	0.8974	0.8985	0.8999	0.9012	0.9025	0.9039	0.9064	0.9089
-179.05					0.8969	0.8980	0.8991	0.9004	0.9018	0.9031	0.9044	0.9070	0.9095
5.033					0.7241	0.7250	0.7259	0.7270	0.7281	0.7292	0.7302	0.7323	0.7343
94.2					0.8956	0.8967	0.8978	0.8992	0.9005	0.9018	0.9032	0.9058	0.9083
-178.95					0.8962	0.8973	0.8984	0.8998	0.9011	0.9024	0.9038	0.9063	0.9089
5.073					0.7236	0.7245	0.7254	0.7265	0.7276	0.7286	0.7297	0.7318	0.7338
94.3					0.8949	0.8960	0.8971	0.8985	0.8999	0.9012	0.9025	0.9051	0.9076
-178.85					0.8955	0.8966	0.8977	0.8991	0.9004	0.9018	0.9031	0.9057	0.9082
5.113					0.7230	0.7239	0.7248	0.7259	0.7270	0.7281	0.7292	0.7313	0.7333
94.4					0.8942	0.8953	0.8964	0.8978	0.8992	0.9005	0.9019	0.9045	0.9070
-178.75					0.8947	0.8959	0.8970	0.8984	0.8997	0.9011	0.9024	0.9050	0.9076
5.153					0.7224	0.7233	0.7242	0.7254	0.7265	0.7275	0.7286	0.7307	0.7328
94.5					0.8935	0.8946	0.8957	0.8971	0.8985	0.8998	0.9012	0.9038	0.9063
-178.65					0.8940	0.8952	0.8963	0.8977	0.8991	0.9004	0.9018	0.9044	0.9069
5.193					0.7218	0.7228	0.7237	0.7248	0.7259	0.7270	0.7281	0.7302	0.7323
94.6					0.8928	0.8939	0.8950	0.8964	0.8978	0.8992	0.9005	0.9031	0.9057
-178.55					0.8933	0.8945	0.8956	0.8970	0.8984	0.8997	0.9011	0.9037	0.9063
5.233					0.7213	0.7222	0.7231	0.7242	0.7254	0.7265	0.7275	0.7297	0.7317
94.7					0.8921	0.8932	0.8943	0.8957	0.8971	0.8985	0.8998	0.9025	0.9050
-178.45					0.8926	0.8938	0.8949	0.8963	0.8977	0.8991	0.9004	0.9030	0.9056
5.274					0.7207	0.7216	0.7226	0.7237	0.7248	0.7259	0.7270	0.7291	0.7312
94.8					0.8913	0.8925	0.8936	0.8951	0.8964	0.8978	0.8992	0.9018	0.9044
-178.35					0.8919	0.8931	0.8942	0.8956	0.8970	0.8984	0.8997	0.9024	0.9050
5.315					0.7201	0.7211	0.7220	0.7231	0.7242	0.7254	0.7264	0.7286	0.7307
94.9					0.8906	0.8918	0.8929	0.8944	0.8958	0.8971	0.8985	0.9011	0.9037
-178.25					0.8912	0.8924	0.8935	0.8949	0.8963	0.8977	0.8991	0.9017	0.9043
5.356					0.7196	0.7205	0.7214	0.7226	0.7237	0.7248	0.7259	0.7281	0.7301

TABLE ENTRIES

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	12.500	15.000	17.500	20.000	25.000	30.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	12.746	15.296	17.845	20.394	25.493	30.591
95.0					0.8899	0.8911	0.8922	0.8937	0.8951	0.8964	0.8978	0.9005	0.9031
-178.15					0.8905	0.8917	0.8928	0.8942	0.8956	0.8970	0.8984	0.9011	0.9037
5.397					0.7190	0.7198	0.7209	0.7220	0.7231	0.7243	0.7254	0.7275	0.7296
95.1					0.8892	0.8904	0.8915	0.8930	0.8944	0.8958	0.8971	0.8998	0.9024
-178.05					0.8898	0.8909	0.8921	0.8935	0.8949	0.8963	0.8977	0.9004	0.9030
5.439					0.7184	0.7194	0.7203	0.7214	0.7226	0.7237	0.7248	0.7270	0.7291
95.2					0.8885	0.8897	0.8908	0.8923	0.8937	0.8951	0.8965	0.8992	0.9018
-177.95					0.8891	0.8902	0.8914	0.8928	0.8943	0.8956	0.8970	0.8997	0.9024
5.481					0.7178	0.7188	0.7197	0.7209	0.7220	0.7231	0.7243	0.7264	0.7286
95.3					0.8878	0.8890	0.8901	0.8916	0.8930	0.8944	0.8958	0.8985	0.9011
-177.85					0.8883	0.8895	0.8907	0.8921	0.8936	0.8950	0.8963	0.8991	0.9017
5.523					0.7172	0.7182	0.7191	0.7203	0.7215	0.7226	0.7237	0.7259	0.7280
95.4					0.8871	0.8882	0.8894	0.8909	0.8923	0.8937	0.8951	0.8978	0.9005
-177.75					0.8876	0.8888	0.8900	0.8914	0.8929	0.8943	0.8957	0.8984	0.9010
5.565					0.7167	0.7176	0.7186	0.7197	0.7209	0.7220	0.7232	0.7254	0.7275
95.5					0.8863	0.8875	0.8887	0.8902	0.8916	0.8930	0.8944	0.8972	0.8998
-177.65					0.8869	0.8881	0.8893	0.8907	0.8922	0.8936	0.8950	0.8977	0.9004
5.608					0.7161	0.7170	0.7180	0.7192	0.7203	0.7215	0.7226	0.7248	0.7270
95.6					0.8856	0.8868	0.8880	0.8895	0.8909	0.8923	0.8937	0.8965	0.8992
-177.55					0.8862	0.8874	0.8886	0.8900	0.8915	0.8929	0.8943	0.8970	0.8997
5.650					0.7155	0.7165	0.7174	0.7186	0.7198	0.7209	0.7221	0.7243	0.7264
95.7					0.8849	0.8861	0.8873	0.8888	0.8902	0.8916	0.8931	0.8958	0.8985
-177.45					0.8855	0.8867	0.8879	0.8893	0.8908	0.8922	0.8936	0.8964	0.8991
5.693					0.7149	0.7159	0.7169	0.7180	0.7192	0.7204	0.7215	0.7237	0.7259
95.8					0.8842	0.8854	0.8866	0.8881	0.8895	0.8910	0.8924	0.8951	0.8978
-177.35					0.8847	0.8859	0.8871	0.8886	0.8901	0.8915	0.8929	0.8957	0.8984
5.737					0.7143	0.7153	0.7163	0.7175	0.7187	0.7198	0.7210	0.7232	0.7254
95.9					0.8834	0.8847	0.8859	0.8874	0.8888	0.8903	0.8917	0.8945	0.8972
-177.25					0.8840	0.8852	0.8864	0.8879	0.8894	0.8908	0.8922	0.8950	0.8977
5.780					0.7137	0.7147	0.7157	0.7169	0.7181	0.7193	0.7204	0.7227	0.7248
96.0					0.8827	0.8839	0.8852	0.8866	0.8881	0.8896	0.8910	0.8938	0.8965
-177.15					0.8833	0.8845	0.8857	0.8872	0.8887	0.8901	0.8916	0.8944	0.8971
5.824					0.7132	0.7141	0.7151	0.7163	0.7175	0.7187	0.7198	0.7221	0.7243
96.1					0.8820	0.8832	0.8844	0.8859	0.8874	0.8889	0.8903	0.8931	0.8958
-177.05					0.8825	0.8838	0.8850	0.8865	0.8880	0.8894	0.8909	0.8937	0.8964
5.868					0.7126	0.7136	0.7145	0.7158	0.7170	0.7181	0.7193	0.7216	0.7238
96.2					0.8813	0.8825	0.8837	0.8852	0.8867	0.8882	0.8896	0.8924	0.8952
-176.95					0.8818	0.8831	0.8843	0.8858	0.8873	0.8887	0.8902	0.8930	0.8958
5.912					0.7120	0.7130	0.7140	0.7152	0.7164	0.7176	0.7187	0.7210	0.7232
96.3					0.8805	0.8818	0.8830	0.8845	0.8860	0.8875	0.8889	0.8918	0.8945
-176.85					0.8811	0.8823	0.8836	0.8851	0.8866	0.8880	0.8895	0.8923	0.8951
5.957					0.7114	0.7124	0.7134	0.7146	0.7158	0.7170	0.7182	0.7205	0.7227
96.4						0.8810	0.8823	0.8838	0.8853	0.8868	0.8882	0.8911	0.8939
-176.75						0.8816	0.8829	0.8844	0.8859	0.8873	0.8888	0.8916	0.8944
6.001						0.7118	0.7128	0.7140	0.7152	0.7164	0.7176	0.7199	0.7222
96.5						0.8803	0.8816	0.8831	0.8846	0.8861	0.8875	0.8904	0.8932
-176.65						0.8809	0.8821	0.8838	0.8852	0.8866	0.8881	0.8910	0.8938
6.046						0.7112	0.7122	0.7135	0.7147	0.7159	0.7171	0.7194	0.7216
96.6						0.8796	0.8808	0.8824	0.8839	0.8854	0.8868	0.8897	0.8925
-176.55						0.8801	0.8814	0.8825	0.8844	0.8859	0.8874	0.8903	0.8931
6.091						0.7106	0.7116	0.7129	0.7141	0.7153	0.7165	0.7188	0.7211
96.7						0.8788	0.8801	0.8817	0.8832	0.8847	0.8862	0.8890	0.8918
-176.45						0.8794	0.8807	0.8822	0.8837	0.8852	0.8867	0.8896	0.8924
6.137						0.7100	0.7111	0.7123	0.7135	0.7147	0.7159	0.7183	0.7205
96.8						0.8781	0.8794	0.8809	0.8825	0.8840	0.8855	0.8884	0.8912
-176.35						0.8787	0.8799	0.8815	0.8830	0.8845	0.8860	0.8889	0.8917
6.182						0.7094	0.7105	0.7117	0.7130	0.7142	0.7154	0.7177	0.7200
96.9						0.8774	0.8787	0.8802	0.8818	0.8833	0.8848	0.8877	0.8905
-176.25						0.8779	0.8792	0.8808	0.8823	0.8838	0.8853	0.8882	0.8911
6.228						0.7088	0.7099	0.7111	0.7124	0.7136	0.7148	0.7172	0.7195

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	12.500	15.000	17.500	20.000	25.000	30.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	12.746	15.296	17.845	20.394	25.493	30.591
97.0						0.8766	0.8779	0.8795	0.8810	0.8826	0.8841	0.8870	0.8898
-176.15						0.8772	0.8785	0.8801	0.8816	0.8831	0.8846	0.8875	0.8904
6.274						0.7083	0.7093	0.7106	0.7118	0.7130	0.7142	0.7166	0.7189
97.1						0.8759	0.8772	0.8788	0.8803	0.8819	0.8834	0.8863	0.8892
-176.05						0.8765	0.8777	0.8793	0.8809	0.8824	0.8839	0.8869	0.8897
6.321						0.7077	0.7087	0.7100	0.7112	0.7125	0.7137	0.7161	0.7184
97.2						0.8752	0.8765	0.8780	0.8796	0.8811	0.8827	0.8856	0.8885
-175.95						0.8757	0.8770	0.8786	0.8802	0.8817	0.8832	0.8862	0.8890
6.368						0.7071	0.7081	0.7094	0.7106	0.7119	0.7131	0.7155	0.7178
97.3						0.8744	0.8757	0.8773	0.8789	0.8804	0.8820	0.8849	0.8878
-175.85						0.8750	0.8763	0.8779	0.8794	0.8810	0.8825	0.8855	0.8884
6.414						0.7065	0.7075	0.7088	0.7101	0.7113	0.7125	0.7149	0.7173
97.4						0.8737	0.8750	0.8766	0.8782	0.8797	0.8812	0.8842	0.8871
-175.75						0.8742	0.8755	0.8771	0.8787	0.8803	0.8818	0.8848	0.8877
6.462						0.7059	0.7069	0.7082	0.7095	0.7107	0.7120	0.7144	0.7167
97.5						0.8729	0.8743	0.8759	0.8774	0.8790	0.8805	0.8835	0.8865
-175.65						0.8735	0.8748	0.8764	0.8780	0.8796	0.8811	0.8841	0.8870
6.509						0.7053	0.7063	0.7076	0.7089	0.7102	0.7114	0.7138	0.7162
97.6						0.8722	0.8735	0.8751	0.8767	0.8783	0.8798	0.8828	0.8858
-175.55						0.8727	0.8741	0.8757	0.8773	0.8789	0.8804	0.8834	0.8863
6.557						0.7047	0.7057	0.7070	0.7083	0.7096	0.7108	0.7133	0.7156
97.7						0.8714	0.8728	0.8744	0.8760	0.8776	0.8791	0.8822	0.8851
-175.45						0.8720	0.8733	0.8750	0.8766	0.8781	0.8797	0.8827	0.8857
6.605						0.7041	0.7051	0.7064	0.7077	0.7090	0.7103	0.7127	0.7151
97.8						0.8707	0.8720	0.8737	0.8753	0.8769	0.8784	0.8815	0.8844
-175.35						0.8713	0.8726	0.8742	0.8758	0.8774	0.8790	0.8820	0.8850
6.653						0.7035	0.7045	0.7058	0.7072	0.7084	0.7097	0.7121	0.7145
97.9						0.8699	0.8713	0.8729	0.8746	0.8761	0.8777	0.8808	0.8837
-175.25						0.8705	0.8718	0.8735	0.8751	0.8767	0.8783	0.8813	0.8843
6.701						0.7028	0.7039	0.7053	0.7066	0.7078	0.7091	0.7116	0.7140
98.0						0.8692	0.8705	0.8722	0.8738	0.8754	0.8770	0.8801	0.8830
-175.15						0.8697	0.8711	0.8727	0.8744	0.8760	0.8776	0.8806	0.8836
6.750						0.7022	0.7033	0.7047	0.7060	0.7073	0.7085	0.7110	0.7134
98.1						0.8684	0.8698	0.8715	0.8731	0.8747	0.8763	0.8794	0.8824
-175.05						0.8690	0.8703	0.8720	0.8736	0.8753	0.8768	0.8799	0.8829
6.799						0.7016	0.7027	0.7041	0.7054	0.7067	0.7080	0.7105	0.7129
98.2						0.8677	0.8690	0.8707	0.8724	0.8740	0.8756	0.8787	0.8817
-174.95						0.8682	0.8696	0.8712	0.8729	0.8745	0.8761	0.8792	0.8822
6.848						0.7010	0.7021	0.7035	0.7048	0.7061	0.7074	0.7099	0.7123
98.3						0.8669	0.8683	0.8700	0.8716	0.8733	0.8749	0.8780	0.8810
-174.85						0.8675	0.8688	0.8705	0.8722	0.8738	0.8754	0.8785	0.8815
6.897						0.7004	0.7015	0.7029	0.7042	0.7055	0.7068	0.7093	0.7118
98.4						0.8662	0.8675	0.8692	0.8709	0.8725	0.8741	0.8773	0.8803
-174.75						0.8667	0.8681	0.8698	0.8714	0.8731	0.8747	0.8778	0.8809
6.947						0.6998	0.7009	0.7023	0.7036	0.7049	0.7062	0.7088	0.7112
98.5						0.8654	0.8668	0.8685	0.8702	0.8718	0.8734	0.8766	0.8796
-174.65						0.8660	0.8673	0.8690	0.8707	0.8724	0.8740	0.8771	0.8802
6.997						0.6992	0.7003	0.7017	0.7030	0.7043	0.7056	0.7082	0.7107
98.6						0.8646	0.8660	0.8677	0.8694	0.8711	0.8727	0.8759	0.8789
-174.55						0.8652	0.8666	0.8683	0.8700	0.8716	0.8732	0.8764	0.8795
7.047						0.6986	0.6997	0.7011	0.7024	0.7038	0.7051	0.7076	0.7101
98.7						0.8639	0.8653	0.8670	0.8687	0.8703	0.8720	0.8752	0.8782
-174.45						0.8644	0.8658	0.8675	0.8692	0.8709	0.8725	0.8757	0.8788
7.098						0.6979	0.6991	0.7005	0.7018	0.7032	0.7045	0.7070	0.7095
98.8						0.8631	0.8645	0.8662	0.8679	0.8696	0.8713	0.8744	0.8775
-174.35						0.8637	0.8651	0.8668	0.8685	0.8702	0.8718	0.8750	0.8781
7.148						0.6973	0.6985	0.6999	0.7012	0.7026	0.7039	0.7065	0.7090
98.9						0.8623	0.8638	0.8655	0.8672	0.8689	0.8705	0.8737	0.8768
-174.25						0.8629	0.8643	0.8660	0.8678	0.8694	0.8711	0.8743	0.8774
7.199						0.6967	0.6978	0.6992	0.7006	0.7020	0.7033	0.7059	0.7084

TABLE ENTRIES

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KF/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	12.500 12.746	15.000 15.296	17.500 17.845	20.000 20.394	25.000 25.493	30.000 30.591
99.0 -174.15 7.251						0.8616 0.8621 0.6961	0.8630 0.8635 0.6972	0.8647 0.8653 0.6986	0.8665 0.8670 0.7000	0.8681 0.8687 0.7014	0.8698 0.8704 0.7027	0.8730 0.8736 0.7053	0.8761 0.8767 0.7079
100.0 -173.15 7.778						0.8538 0.8543 0.6898	0.8553 0.8558 0.6910	0.8571 0.8577 0.6925	0.8589 0.8595 0.6939	0.8607 0.8613 0.6954	0.8625 0.8630 0.6968	0.8659 0.8664 0.6995	0.8691 0.8697 0.7022
101.0 -172.15 8.332							0.8474 0.8479 0.6846	0.8493 0.8499 0.6862	0.8512 0.8518 0.6877	0.8531 0.8537 0.6892	0.8550 0.8555 0.6907	0.8585 0.8591 0.6936	0.8620 0.8625 0.6964
102.0 -171.15 8.914							0.8392 0.8398 0.6780	0.8413 0.8418 0.6797	0.8433 0.8439 0.6814	0.8453 0.8459 0.6830	0.8473 0.8478 0.6845	0.8511 0.8516 0.6876	0.8547 0.8552 0.6905
103.0 -170.15 9.525							0.8309 0.8314 0.6713	0.8331 0.8336 0.6731	0.8352 0.8358 0.6748	0.8374 0.8379 0.6765	0.8394 0.8400 0.6782	0.8434 0.8440 0.6814	0.8473 0.8478 0.6845
104.0 -169.15 10.165								0.8246 0.8251 0.6662	0.8269 0.8274 0.6681	0.8292 0.8297 0.6699	0.8314 0.8319 0.6717	0.8356 0.8361 0.6751	0.8397 0.8402 0.6784
105.0 -168.15 10.836								0.8158 0.8163 0.6591	0.8183 0.8188 0.6611	0.8207 0.8212 0.6631	0.8231 0.8236 0.6650	0.8276 0.8281 0.6686	0.8319 0.8324 0.6721
106.0 -167.15 11.538								0.8068 0.8073 0.6518	0.8094 0.8099 0.6539	0.8120 0.8125 0.6560	0.8145 0.8150 0.6581	0.8193 0.8199 0.6619	0.8239 0.8244 0.6656
107.0 -166.15 12.271								0.7973 0.7978 0.6442	0.8002 0.8007 0.6465	0.8030 0.8035 0.6488	0.8057 0.8062 0.6509	0.8108 0.8114 0.6551	0.8157 0.8162 0.6590
108.0 -165.15 13.038									0.7906 0.7911 0.6388	0.7936 0.7941 0.6412	0.7966 0.7971 0.6435	0.8021 0.8026 0.6480	0.8073 0.8078 0.6522
109.0 -164.15 13.838									0.7806 0.7811 0.6307	0.7839 0.7844 0.6333	0.7871 0.7876 0.6359	0.7930 0.7935 0.6407	0.7986 0.7991 0.6452
110.0 -163.15 14.672									0.7701 0.7706 0.6222	0.7737 0.7742 0.6251	0.7772 0.7776 0.6279	0.7836 0.7841 0.6331	0.7896 0.7901 0.6380
111.0 -162.15 15.542										0.7630 0.7635 0.6164	0.7668 0.7673 0.6195	0.7738 0.7743 0.6252	0.7803 0.7808 0.6304
112.0 -161.15 16.448										0.7517 0.7521 0.6073	0.7559 0.7563 0.6107	0.7636 0.7641 0.6169	0.7707 0.7712 0.6226
113.0 -160.15 17.392										0.7396 0.7401 0.5975	0.7443 0.7448 0.6013	0.7529 0.7534 0.6083	0.7606 0.7611 0.6145
114.0 -159.15 18.373											0.7319 0.7324 0.5913	0.7415 0.7420 0.5991	0.7501 0.7505 0.6060
115.0 -158.15 19.394											0.7186 0.7190 0.5806	0.7295 0.7299 0.5893	0.7389 0.7394 0.5970
116.0 -157.15 20.455												0.7165 0.7170 0.5789	0.7272 0.7276 0.5875
117.0 -156.15 21.558												0.7025 0.7029 0.5675	0.7146 0.7151 0.5774
118.0 -155.15 22.704												0.6870 0.6874 0.5550	0.7011 0.7016 0.5665

1. TEMPERATURE, K 2. TEMPERATURE, C 3. VAPOR PRESSURE, BAR	TABLE ENTRIES 1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS 2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS 3. DENSITY, KG/DM^3											
BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	12.500 12.746	15.000 15.296	17.500 17.845	20.000 20.394	25.000 25.493	30.000 30.591
119.0 -154.15 23.893												0.6695 0.5699 0.5409	0.6864 0.6868 0.5545
120.0 -153.15 25.128													0.6701 0.6705 0.5414
121.0 -152.15 26.410													0.6515 0.6519 0.5264
122.0 -151.15 27.741													0.6297 0.6301 0.5087
123.0 -150.15 29.122													0.6021 0.6025 0.4864

8. ARGON

The data for argon given here are from Gosman, et al. (1969). The entire PVT tabulations were calculated by a simultaneous solution of the vapor pressure equation and the equation of state reported by these authors. The calculation of each point was performed by solving the vapor pressure equation for either P or T depending on which was the integral value input. Using the P and T so obtained, a corresponding density was found from the equation of state.

Values near room temperature are given in table 9, uncertainties for the data in table 10, values for the saturated liquid are given in table 11 and values for the compressed liquid are shown in table 12. The values differ from those in the CGA pamphlet P-6

Table 9

Density of Argon Near Atmospheric Pressure and Room Temperature

Temperature	Pressure	Density		Volume	
		gram-mole/cm^3	kg/dm^3	cm^3/gram-mole	dm^3/kg
0° C	1 bar	4.4074×10^{-5}	1.7606×10^{-3}	22689.	567.96
	760 torr	4.4659×10^{-5}	1.7840×10^{-3}	22392.	560.53
15° C	1 bar	4.1772×10^{-5}	1.6687×10^{-3}	23940.	599.27
	760 torr	4.2326×10^{-5}	1.6908×10^{-3}	23626.	591.43
Density Ratios - Dimensionless					
Liquid Density at a boiling pressure of 1 bar* /density at 1 bar and 0° C					792.13
Liquid Density at a boiling pressure of 1 bar/density at 1 bar and 15° C					835.79
Liquid Density at a boiling pressure of 760 torr† /density at 760 torr and 0° C					781.34
Liquid Density at a boiling pressure of 760 torr/density at 760 torr and 15° C					824.40

* Liquid density at a boiling pressure of 1 bar 1.3947 kg/dm^3

† Liquid density at a boiling pressure of 760 torr 1.3939 kg/dm^3

by about 0.02% primarily because a higher order interpolation is used here. The value of the density at the boiling point at 760 torr differs from that in the CGA pamphlet P-6 by 0.4%. The new correlation includes quite recent data, both on PVT and on the temperature scale corrections, and should, therefore, be more accurate.

Table 10

Uncertainties in the Data for Argon

variable	uncertainty	range of temperature
temperature	0.08%	84 to 87 K
	0.02%	87 to 154 K
	0.015 K	room temperature
volume	0.1%	triple point to 145 K
	increase to 1%	linearly from 145 K to critical
	0.01%	room temperature
pressure	0.1%	84 to 87 K
	0.02%	87 to 154 K
	0.01%	room temperature

TABLE 11

SATURATED LIQUID ARGON

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS -	DIMENSIONLESS
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
0.689	0.702	83.800	-189.350	0.035413	1.4147	28.239	0.7069	1.0143	1.0149
0.705	0.719	84.000	-189.150	0.035383	1.4135	28.262	0.7075	1.0135	1.0140
0.717	0.731	84.150	-189.000	0.035361	1.4126	28.279	0.7079	1.0129	1.0134
0.790	0.805	85.000	-188.150	0.035236	1.4076	28.380	0.7104	1.0093	1.0098
0.800	0.816	85.115	-188.035	0.035219	1.4069	28.394	0.7108	1.0088	1.0093
0.803	0.819	85.150	-188.000	0.035214	1.4067	28.398	0.7109	1.0086	1.0092
0.882	0.900	86.000	-187.150	0.035087	1.4017	28.500	0.7134	1.0050	1.0056
0.897	0.915	86.150	-187.000	0.035065	1.4008	28.519	0.7139	1.0044	1.0049
0.981	1.000	86.977	-186.173	0.034940	1.3958	28.620	0.7164	1.0008	1.0013
0.983	1.002	87.000	-186.150	0.034937	1.3956	28.623	0.7165	1.0007	1.0012
0.999	1.019	87.150	-186.000	0.034914	1.3947	28.642	0.7170	1.0000	1.0006
1.000	1.020	87.160	-185.990	0.034912	1.3947	28.643	0.7170	1.0000	1.0005
1.013	1.033	87.284	-185.866	0.034893	1.3939	28.659	0.7174	0.9995	1.0000
1.092	1.114	88.000	-185.150	0.034784	1.3896	28.749	0.7197	0.9963	0.9969
1.110	1.131	88.150	-185.000	0.034761	1.3886	28.768	0.7201	0.9957	0.9962
1.200	1.224	88.911	-184.239	0.034644	1.3839	28.865	0.7226	0.9923	0.9928
1.211	1.235	89.000	-184.150	0.034630	1.3834	28.877	0.7229	0.9919	0.9924
1.229	1.254	89.150	-184.000	0.034607	1.3825	28.896	0.7233	0.9912	0.9918
1.339	1.365	90.000	-183.150	0.034474	1.3772	29.007	0.7261	0.9875	0.9880
1.359	1.386	90.150	-183.000	0.034451	1.3762	29.027	0.7266	0.9868	0.9873
1.400	1.428	90.452	-182.698	0.034403	1.3743	29.067	0.7276	0.9854	0.9860
1.477	1.506	91.000	-182.150	0.034317	1.3709	29.140	0.7295	0.9829	0.9835
1.498	1.528	91.150	-182.000	0.034293	1.3699	29.160	0.7300	0.9823	0.9828
1.600	1.632	91.834	-181.316	0.034185	1.3656	29.253	0.7323	0.9792	0.9797
1.625	1.657	92.000	-181.150	0.034158	1.3645	29.276	0.7328	0.9784	0.9789
1.649	1.681	92.150	-181.000	0.034134	1.3636	29.296	0.7334	0.9777	0.9782
1.785	1.820	93.000	-180.150	0.033998	1.3581	29.414	0.7363	0.9738	0.9743
1.800	1.835	93.091	-180.059	0.033983	1.3576	29.426	0.7366	0.9734	0.9739
1.810	1.846	93.150	-180.000	0.033974	1.3572	29.435	0.7368	0.9731	0.9736
1.956	1.995	94.000	-179.150	0.033836	1.3517	29.554	0.7398	0.9692	0.9697
1.961	2.000	94.030	-179.120	0.033831	1.3515	29.559	0.7399	0.9690	0.9696
1.983	2.022	94.150	-179.000	0.033812	1.3507	29.576	0.7404	0.9685	0.9690
2.000	2.039	94.247	-178.903	0.033796	1.3501	29.589	0.7407	0.9680	0.9685
2.139	2.181	95.000	-178.150	0.033673	1.3452	29.698	0.7434	0.9645	0.9650
2.168	2.210	95.150	-178.000	0.033648	1.3442	29.719	0.7440	0.9638	0.9643
2.200	2.243	95.319	-177.831	0.033620	1.3431	29.744	0.7446	0.9630	0.9635
2.335	2.381	96.000	-177.150	0.033508	1.3386	29.844	0.7471	0.9598	0.9603
2.365	2.412	96.150	-177.000	0.033483	1.3376	29.866	0.7476	0.9591	0.9596
2.400	2.447	96.321	-176.829	0.033455	1.3365	29.891	0.7482	0.9583	0.9588
2.543	2.593	97.000	-176.150	0.033342	1.3319	29.992	0.7508	0.9550	0.9555

TABLE 11 CONTINUED

SATURATED LIQUID ARGON

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
2.576	2.626	97.150	-176.000	0.033317	1.3309	30.015	0.7514	0.9543	0.9548
2.600	2.651	97.262	-175.888	0.033298	1.3302	30.032	0.7518	0.9538	0.9543
2.765	2.820	98.000	-175.150	0.033174	1.3252	30.144	0.7546	0.9502	0.9507
2.800	2.855	98.150	-175.000	0.033149	1.3242	30.167	0.7552	0.9495	0.9500
2.800	2.855	98.151	-174.999	0.033149	1.3242	30.167	0.7552	0.9495	0.9500
2.942	3.000	98.754	-174.396	0.033047	1.3201	30.260	0.7575	0.9466	0.9471
3.000	3.059	98.994	-174.156	0.033006	1.3185	30.298	0.7584	0.9454	0.9459
3.001	3.061	99.000	-174.150	0.033005	1.3185	30.299	0.7584	0.9454	0.9459
3.038	3.098	99.150	-174.000	0.032979	1.3175	30.322	0.7590	0.9446	0.9451
3.200	3.263	99.796	-173.354	0.032869	1.3131	30.424	0.7616	0.9415	0.9420
3.252	3.316	100.000	-173.150	0.032834	1.3117	30.456	0.7624	0.9405	0.9410
3.291	3.356	100.150	-173.000	0.032808	1.3106	30.480	0.7630	0.9397	0.9402
3.400	3.467	100.563	-172.587	0.032738	1.3078	30.546	0.7646	0.9377	0.9382
3.518	3.588	101.000	-172.150	0.032662	1.3048	30.617	0.7664	0.9355	0.9360
3.559	3.630	101.150	-172.000	0.032636	1.3037	30.641	0.7670	0.9348	0.9353
3.600	3.671	101.297	-171.853	0.032611	1.3027	30.665	0.7676	0.9341	0.9346
3.800	3.875	102.000	-171.150	0.032488	1.2978	30.780	0.7705	0.9306	0.9311
3.800	3.875	102.001	-171.149	0.032488	1.2978	30.781	0.7705	0.9306	0.9311
3.843	3.919	102.150	-171.000	0.032462	1.2968	30.805	0.7711	0.9298	0.9303
3.923	4.000	102.420	-170.730	0.032415	1.2949	30.850	0.7723	0.9285	0.9290
4.000	4.079	102.679	-170.471	0.032369	1.2931	30.893	0.7733	0.9272	0.9277
4.097	4.178	103.000	-170.150	0.032313	1.2908	30.947	0.7747	0.9255	0.9260
4.143	4.225	103.150	-170.000	0.032286	1.2898	30.973	0.7753	0.9248	0.9253
4.200	4.283	103.333	-169.817	0.032254	1.2885	31.004	0.7761	0.9239	0.9244
4.400	4.487	103.964	-169.186	0.032142	1.2840	31.112	0.7788	0.9207	0.9212
4.412	4.499	104.000	-169.150	0.032136	1.2838	31.118	0.7790	0.9205	0.9210
4.460	4.548	104.150	-169.000	0.032109	1.2827	31.144	0.7796	0.9197	0.9202
4.600	4.691	104.574	-168.576	0.032033	1.2797	31.217	0.7814	0.9175	0.9180
4.743	4.837	105.000	-168.150	0.031957	1.2766	31.292	0.7833	0.9154	0.9159
4.794	4.889	105.150	-168.000	0.031930	1.2756	31.318	0.7840	0.9146	0.9151
4.800	4.895	105.166	-167.984	0.031927	1.2754	31.321	0.7840	0.9145	0.9150
4.903	5.000	105.465	-167.685	0.031874	1.2733	31.374	0.7854	0.9130	0.9135
5.000	5.099	105.740	-167.410	0.031824	1.2713	31.423	0.7866	0.9115	0.9120
5.093	5.193	106.000	-167.150	0.031777	1.2694	31.469	0.7878	0.9102	0.9107
5.147	5.248	106.150	-167.000	0.031750	1.2683	31.496	0.7884	0.9094	0.9099
5.200	5.303	106.297	-166.853	0.031723	1.2673	31.523	0.7891	0.9086	0.9091
5.400	5.506	106.840	-166.310	0.031624	1.2633	31.622	0.7916	0.9058	0.9063
5.460	5.568	107.000	-166.150	0.031595	1.2621	31.651	0.7923	0.9050	0.9055
5.517	5.626	107.150	-166.000	0.031567	1.2610	31.678	0.7930	0.9042	0.9047
5.600	5.710	107.367	-165.783	0.031527	1.2595	31.719	0.7940	0.9030	0.9035
5.800	5.914	107.882	-165.268	0.031433	1.2557	31.814	0.7964	0.9003	0.9008
5.847	5.962	108.000	-165.150	0.031411	1.2548	31.836	0.7969	0.8997	0.9002
5.884	6.000	108.094	-165.056	0.031393	1.2541	31.854	0.7974	0.8992	0.8997
5.906	6.023	108.150	-165.000	0.031383	1.2537	31.864	0.7976	0.8989	0.8994
6.000	6.118	108.383	-164.767	0.031340	1.2520	31.909	0.7988	0.8977	0.8982

TABLE 11 CONTINUED

SATURATED LIQUID ARGON

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
6.200	6.322	108.873	-164.277	0.031248	1.2483	32.002	0.8011	0.8951	0.8955
6.253	6.376	109.000	-164.150	0.031225	1.2474	32.026	0.8017	0.8944	0.8949
6.315	6.440	109.150	-164.000	0.031197	1.2462	32.055	0.8024	0.8936	0.8941
6.400	6.526	109.352	-163.798	0.031159	1.2447	32.094	0.8034	0.8925	0.8930
6.600	6.730	109.820	-163.330	0.031071	1.2412	32.184	0.8057	0.8900	0.8905
6.678	6.810	110.000	-163.150	0.031037	1.2399	32.220	0.8065	0.8890	0.8895
6.744	6.877	110.150	-163.000	0.031008	1.2387	32.249	0.8073	0.8882	0.8887
6.800	6.934	110.277	-162.873	0.030984	1.2378	32.274	0.8079	0.8875	0.8880
6.865	7.000	110.423	-162.727	0.030957	1.2367	32.303	0.8086	0.8867	0.8872
7.000	7.138	110.725	-162.425	0.030899	1.2344	32.363	0.8101	0.8851	0.8855
7.125	7.265	111.000	-162.150	0.030847	1.2323	32.418	0.8115	0.8836	0.8840
7.193	7.335	111.150	-162.000	0.030818	1.2311	32.448	0.8123	0.8827	0.8832
7.200	7.342	111.164	-161.986	0.030815	1.2310	32.451	0.8123	0.8827	0.8831
7.400	7.546	111.595	-161.555	0.030733	1.2277	32.538	0.8145	0.8803	0.8808
7.592	7.742	112.000	-161.150	0.030655	1.2246	32.621	0.8166	0.8781	0.8785
7.600	7.750	112.017	-161.133	0.030652	1.2245	32.625	0.8167	0.8780	0.8784
7.664	7.815	112.150	-161.000	0.030626	1.2234	32.652	0.8174	0.8772	0.8777
7.800	7.954	112.431	-160.719	0.030571	1.2213	32.710	0.8188	0.8757	0.8761
7.845	8.000	112.524	-160.626	0.030553	1.2205	32.730	0.8193	0.8751	0.8756
8.000	8.158	112.838	-160.312	0.030492	1.2181	32.795	0.8210	0.8734	0.8739
8.081	8.240	113.000	-160.150	0.030460	1.2168	32.830	0.8218	0.8725	0.8730
8.156	8.317	113.150	-160.000	0.030431	1.2157	32.861	0.8226	0.8716	0.8721
8.200	8.362	113.237	-159.913	0.030414	1.2150	32.880	0.8231	0.8712	0.8716
8.400	8.566	113.629	-159.521	0.030337	1.2119	32.963	0.8252	0.8689	0.8694
8.592	8.761	114.000	-159.150	0.030264	1.2090	33.043	0.8271	0.8668	0.8673
8.600	8.770	114.015	-159.135	0.030261	1.2089	33.046	0.8272	0.8668	0.8672
8.671	8.842	114.150	-159.000	0.030234	1.2078	33.075	0.8280	0.8660	0.8665
8.800	8.974	114.395	-158.755	0.030185	1.2058	33.129	0.8293	0.8646	0.8651
8.826	9.000	114.444	-158.706	0.030176	1.2055	33.139	0.8296	0.8643	0.8648
9.000	9.177	114.768	-158.382	0.030111	1.2029	33.211	0.8313	0.8625	0.8629
9.126	9.306	115.000	-158.150	0.030065	1.2010	33.262	0.8326	0.8611	0.8616
9.200	9.381	115.136	-158.014	0.030037	1.1999	33.292	0.8334	0.8604	0.8608
9.208	9.389	115.150	-158.000	0.030034	1.1998	33.295	0.8335	0.8603	0.8607
9.400	9.585	115.497	-157.653	0.029965	1.1970	33.373	0.8354	0.8583	0.8587
9.600	9.789	115.854	-157.296	0.029892	1.1941	33.453	0.8374	0.8562	0.8567
9.683	9.874	116.000	-157.150	0.029863	1.1930	33.486	0.8383	0.8554	0.8558
9.769	9.961	116.150	-157.000	0.029832	1.1917	33.521	0.8391	0.8545	0.8550
9.800	9.993	116.205	-156.945	0.029821	1.1913	33.533	0.8394	0.8542	0.8546
9.807	10.000	116.216	-156.934	0.029819	1.1912	33.536	0.8395	0.8541	0.8546
10.000	10.197	116.551	-156.599	0.029751	1.1885	33.613	0.8414	0.8522	0.8526
10.200	10.401	116.892	-156.258	0.029681	1.1857	33.692	0.8434	0.8501	0.8506
10.264	10.466	117.000	-156.150	0.029658	1.1848	33.717	0.8440	0.8495	0.8500
10.353	10.557	117.150	-156.000	0.029627	1.1836	33.752	0.8449	0.8486	0.8491
10.400	10.605	117.228	-155.922	0.029611	1.1829	33.771	0.8454	0.8482	0.8486
10.600	10.809	117.560	-155.590	0.029543	1.1802	33.849	0.8473	0.8462	0.8467

TABLE 11 CONTINUED

SATURATED LIQUID ARGON

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
10.787	11.000	117.867	-155.283	0.029479	1.1776	33.923	0.8492	0.8444	0.8448
10.800	11.013	117.887	-155.263	0.029475	1.1775	33.927	0.8493	0.8442	0.8447
10.870	11.084	118.000	-155.150	0.029451	1.1765	33.955	0.8500	0.8436	0.8440
10.962	11.179	118.150	-155.000	0.029420	1.1753	33.991	0.8509	0.8427	0.8431
11.000	11.217	118.210	-154.940	0.029407	1.1748	34.005	0.8512	0.8423	0.8428
11.200	11.421	118.529	-154.621	0.029340	1.1721	34.083	0.8532	0.8404	0.8409
11.400	11.625	118.844	-154.306	0.029274	1.1694	34.160	0.8551	0.8385	0.8390
11.500	11.727	119.000	-154.150	0.029241	1.1681	34.199	0.8561	0.8376	0.8380
11.597	11.826	119.150	-154.000	0.029209	1.1668	34.236	0.8570	0.8366	0.8371
11.600	11.829	119.155	-153.995	0.029208	1.1668	34.237	0.8570	0.8366	0.8371
11.768	12.000	119.413	-153.737	0.029153	1.1646	34.302	0.8587	0.8350	0.8355
11.800	12.033	119.462	-153.688	0.029143	1.1642	34.314	0.8590	0.8347	0.8352
12.000	12.237	119.765	-153.385	0.029078	1.1616	34.390	0.8609	0.8329	0.8333
12.156	12.396	120.000	-153.150	0.029027	1.1596	34.450	0.8624	0.8314	0.8319
12.200	12.441	120.065	-153.085	0.029013	1.1590	34.467	0.8628	0.8310	0.8315
12.257	12.499	120.150	-153.000	0.028995	1.1583	34.489	0.8633	0.8305	0.8310
12.400	12.644	120.361	-152.789	0.028949	1.1565	34.543	0.8647	0.8292	0.8297
12.600	12.848	120.654	-152.496	0.028886	1.1539	34.619	0.8666	0.8274	0.8278
12.749	13.000	120.870	-152.280	0.028839	1.1521	34.675	0.8680	0.8260	0.8265
12.800	13.052	120.944	-152.206	0.028823	1.1514	34.695	0.8685	0.8256	0.8260
12.839	13.092	121.000	-152.150	0.028811	1.1509	34.709	0.8689	0.8252	0.8257
12.944	13.199	121.150	-152.000	0.028778	1.1496	34.749	0.8699	0.8243	0.8247
13.000	13.256	121.230	-151.920	0.028760	1.1489	34.770	0.8704	0.8238	0.8242
13.200	13.460	121.514	-151.636	0.028698	1.1464	34.846	0.8723	0.8220	0.8224
13.400	13.664	121.794	-151.356	0.028636	1.1440	34.921	0.8742	0.8202	0.8207
13.548	13.815	122.000	-151.150	0.028590	1.1421	34.977	0.8756	0.8189	0.8194
13.600	13.868	122.071	-151.079	0.028575	1.1415	34.996	0.8760	0.8185	0.8189
13.657	13.926	122.150	-151.000	0.028557	1.1408	35.018	0.8766	0.8180	0.8184
13.729	14.000	122.249	-150.901	0.028535	1.1399	35.045	0.8773	0.8173	0.8178
13.800	14.072	122.346	-150.804	0.028513	1.1391	35.071	0.8779	0.8167	0.8172
14.000	14.276	122.617	-150.533	0.028452	1.1366	35.146	0.8798	0.8150	0.8154
14.200	14.480	122.886	-150.264	0.028392	1.1342	35.221	0.8817	0.8132	0.8137
14.285	14.567	123.000	-150.150	0.028366	1.1332	35.253	0.8825	0.8125	0.8129
14.398	14.682	123.150	-150.000	0.028332	1.1318	35.295	0.8835	0.8115	0.8120
14.400	14.684	123.152	-149.998	0.028332	1.1318	35.296	0.8835	0.8115	0.8120
14.600	14.888	123.416	-149.734	0.028272	1.1294	35.371	0.8854	0.8098	0.8102
14.710	15.000	123.560	-149.590	0.028239	1.1281	35.412	0.8864	0.8089	0.8093
14.800	15.092	123.677	-149.473	0.028212	1.1270	35.445	0.8873	0.8081	0.8085
15.000	15.296	123.935	-149.215	0.028153	1.1247	35.520	0.8892	0.8064	0.8068
15.051	15.347	124.000	-149.150	0.028138	1.1241	35.539	0.8896	0.8060	0.8064
15.168	15.467	124.150	-149.000	0.028104	1.1227	35.583	0.8907	0.8050	0.8054
15.200	15.500	124.191	-148.959	0.028094	1.1223	35.595	0.8910	0.8047	0.8051
15.400	15.704	124.445	-148.705	0.028035	1.1200	35.669	0.8929	0.8030	0.8035
15.600	15.908	124.696	-148.454	0.027977	1.1176	35.744	0.8948	0.8014	0.8018
15.691	16.000	124.809	-148.341	0.027951	1.1166	35.777	0.8956	0.8006	0.8010

TABLE 11 CONTINUED

SATURATED LIQUID ARGON

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS -	DIMENSIONLESS
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
15.800	16.112	124.945	-148.205	0.027919	1.1153	35.818	0.8966	0.7997	0.8001
15.845	16.157	125.000	-148.150	0.027906	1.1148	35.835	0.8970	0.7993	0.7997
15.966	16.281	125.150	-148.000	0.027871	1.1134	35.880	0.8982	0.7983	0.7987
16.000	16.315	125.192	-147.958	0.027861	1.1130	35.893	0.8985	0.7980	0.7985
16.200	16.519	125.436	-147.714	0.027803	1.1107	35.967	0.9003	0.7964	0.7968
16.400	16.723	125.678	-147.472	0.027746	1.1084	36.042	0.9022	0.7947	0.7952
16.600	16.927	125.919	-147.231	0.027688	1.1061	36.116	0.9041	0.7931	0.7935
16.668	16.997	126.000	-147.150	0.027669	1.1053	36.142	0.9047	0.7925	0.7930
16.671	17.000	126.004	-147.146	0.027668	1.1053	36.143	0.9047	0.7925	0.7929
16.794	17.125	126.150	-147.000	0.027633	1.1039	36.189	0.9059	0.7915	0.7919
16.800	17.131	126.157	-146.993	0.027631	1.1038	36.191	0.9059	0.7915	0.7919
17.000	17.335	126.393	-146.757	0.027575	1.1015	36.265	0.9078	0.7898	0.7903
17.200	17.539	126.627	-146.523	0.027518	1.0993	36.340	0.9097	0.7882	0.7886
17.400	17.743	126.860	-146.290	0.027462	1.0970	36.415	0.9115	0.7866	0.7870
17.522	17.867	127.000	-146.150	0.027427	1.0957	36.460	0.9127	0.7856	0.7860
17.600	17.947	127.090	-146.060	0.027405	1.0948	36.489	0.9134	0.7850	0.7854
17.652	18.000	127.149	-146.001	0.027391	1.0942	36.509	0.9139	0.7846	0.7850
17.652	18.000	127.150	-146.000	0.027391	1.0942	36.509	0.9139	0.7846	0.7850
17.800	18.151	127.318	-145.832	0.027349	1.0925	36.564	0.9153	0.7834	0.7838
18.000	18.355	127.545	-145.605	0.027293	1.0903	36.639	0.9172	0.7818	0.7822
18.200	18.559	127.770	-145.380	0.027238	1.0881	36.714	0.9190	0.7802	0.7806
18.400	18.763	127.993	-145.157	0.027182	1.0859	36.789	0.9209	0.7786	0.7790
18.406	18.769	128.000	-145.150	0.027180	1.0858	36.791	0.9210	0.7785	0.7789
18.542	18.907	128.150	-145.000	0.027143	1.0843	36.842	0.9223	0.7775	0.7779
18.600	18.967	128.214	-144.936	0.027127	1.0837	36.864	0.9228	0.7770	0.7774
18.633	19.000	128.250	-144.900	0.027118	1.0833	36.876	0.9231	0.7767	0.7772
18.800	19.171	128.434	-144.716	0.027071	1.0814	36.939	0.9247	0.7754	0.7758
19.000	19.375	128.652	-144.498	0.027016	1.0792	37.015	0.9266	0.7738	0.7742
19.200	19.579	128.868	-144.282	0.026961	1.0770	37.090	0.9285	0.7723	0.7727
19.322	19.703	129.000	-144.150	0.026928	1.0757	37.137	0.9296	0.7713	0.7717
19.400	19.782	129.083	-144.067	0.026906	1.0749	37.166	0.9304	0.7707	0.7711
19.463	19.846	129.150	-144.000	0.026889	1.0742	37.190	0.9310	0.7702	0.7706
19.600	19.986	129.296	-143.854	0.026852	1.0727	37.242	0.9323	0.7691	0.7695
19.613	20.000	129.310	-143.840	0.026848	1.0725	37.247	0.9324	0.7690	0.7694
19.800	20.190	129.508	-143.642	0.026797	1.0705	37.318	0.9342	0.7676	0.7680
20.000	20.394	129.718	-143.432	0.026743	1.0683	37.394	0.9361	0.7660	0.7664
20.200	20.598	129.926	-143.224	0.026688	1.0661	37.470	0.9380	0.7644	0.7648
20.271	20.671	130.000	-143.150	0.026669	1.0654	37.497	0.9386	0.7639	0.7643
20.400	20.802	130.133	-143.017	0.026634	1.0640	37.546	0.9399	0.7629	0.7633
20.416	20.819	130.150	-143.000	0.026630	1.0638	37.552	0.9400	0.7628	0.7632
20.594	21.000	130.333	-142.817	0.026581	1.0619	37.620	0.9417	0.7614	0.7618
20.600	21.006	130.339	-142.811	0.026580	1.0618	37.623	0.9418	0.7613	0.7617
20.800	21.210	130.543	-142.607	0.026526	1.0596	37.699	0.9437	0.7598	0.7602
21.000	21.414	130.746	-142.404	0.026472	1.0575	37.776	0.9456	0.7582	0.7586
21.200	21.618	130.947	-142.203	0.026418	1.0553	37.853	0.9476	0.7567	0.7571

TABLE 11 CONTINUED

SATURATED LIQUID ARGON

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
21.253	21.672	131.000	-142.150	0.026404	1.0548	37.874	0.9481	0.7563	0.7567
21.400	21.822	131.147	-142.003	0.026364	1.0532	37.931	0.9495	0.7551	0.7556
21.403	21.825	131.150	-142.000	0.026363	1.0532	37.932	0.9495	0.7551	0.7555
21.575	22.000	131.321	-141.829	0.026317	1.0513	37.998	0.9512	0.7538	0.7542
21.600	22.026	131.346	-141.804	0.026310	1.0510	38.008	0.9514	0.7536	0.7540
21.800	22.230	131.543	-141.607	0.026257	1.0489	38.086	0.9534	0.7521	0.7525
22.000	22.434	131.739	-141.411	0.026203	1.0468	38.164	0.9553	0.7505	0.7509
22.200	22.638	131.934	-141.216	0.026149	1.0446	38.242	0.9573	0.7490	0.7494
22.268	22.707	132.000	-141.150	0.026131	1.0439	38.268	0.9580	0.7485	0.7489
22.400	22.842	132.128	-141.022	0.026096	1.0425	38.320	0.9593	0.7475	0.7479
22.423	22.865	132.150	-141.000	0.026090	1.0422	38.329	0.9595	0.7473	0.7477
22.555	23.000	132.277	-140.873	0.026054	1.0408	38.381	0.9608	0.7463	0.7467
22.600	23.046	132.320	-140.830	0.026042	1.0403	38.399	0.9612	0.7459	0.7463
22.800	23.250	132.511	-140.639	0.025989	1.0382	38.478	0.9632	0.7444	0.7448
23.000	23.453	132.701	-140.449	0.025936	1.0361	38.557	0.9652	0.7429	0.7433
23.200	23.657	132.889	-140.261	0.025882	1.0339	38.636	0.9672	0.7414	0.7418
23.318	23.778	133.000	-140.150	0.025851	1.0327	38.683	0.9683	0.7405	0.7409
23.400	23.861	133.077	-140.073	0.025829	1.0318	38.716	0.9692	0.7398	0.7402
23.479	23.942	133.150	-140.000	0.025808	1.0310	38.748	0.9700	0.7392	0.7396
23.536	24.000	133.203	-139.947	0.025793	1.0304	38.771	0.9705	0.7388	0.7392
23.600	24.065	133.263	-139.887	0.025776	1.0297	38.796	0.9712	0.7383	0.7387
23.800	24.269	133.448	-139.702	0.025723	1.0276	38.876	0.9732	0.7368	0.7372
24.000	24.473	133.632	-139.518	0.025669	1.0254	38.957	0.9752	0.7352	0.7356
24.200	24.677	133.815	-139.335	0.025616	1.0233	39.038	0.9772	0.7337	0.7341
24.400	24.881	133.997	-139.153	0.025563	1.0212	39.119	0.9793	0.7322	0.7326
24.404	24.885	134.000	-139.150	0.025562	1.0211	39.121	0.9793	0.7322	0.7326
24.517	25.000	134.102	-139.048	0.025532	1.0199	39.167	0.9804	0.7313	0.7317
24.570	25.054	134.150	-139.000	0.025518	1.0194	39.188	0.9810	0.7309	0.7313
24.600	25.085	134.177	-138.973	0.025510	1.0191	39.201	0.9813	0.7307	0.7311
24.800	25.289	134.357	-138.793	0.025457	1.0169	39.283	0.9833	0.7292	0.7295
25.000	25.493	134.536	-138.614	0.025403	1.0148	39.365	0.9854	0.7276	0.7280
25.200	25.697	134.713	-138.437	0.025350	1.0127	39.448	0.9875	0.7261	0.7265
25.400	25.901	134.890	-138.260	0.025297	1.0106	39.531	0.9895	0.7246	0.7250
25.497	26.000	134.975	-138.175	0.025271	1.0095	39.571	0.9906	0.7238	0.7242
25.525	26.029	135.000	-138.150	0.025264	1.0092	39.583	0.9909	0.7236	0.7240
25.600	26.105	135.065	-138.085	0.025244	1.0084	39.614	0.9916	0.7231	0.7234
25.697	26.204	135.150	-138.000	0.025218	1.0074	39.654	0.9927	0.7223	0.7227
25.800	26.309	135.240	-137.910	0.025190	1.0063	39.698	0.9937	0.7215	0.7219
26.000	26.513	135.413	-137.737	0.025137	1.0042	39.782	0.9958	0.7200	0.7204
26.200	26.717	135.586	-137.564	0.025084	1.0021	39.866	0.9980	0.7185	0.7189
26.400	26.921	135.758	-137.392	0.025031	0.9999	39.951	1.0001	0.7170	0.7173
26.478	27.000	135.824	-137.326	0.025010	0.9991	39.984	1.0009	0.7164	0.7167
26.600	27.124	135.928	-137.222	0.024977	0.9978	40.037	1.0022	0.7154	0.7158
26.685	27.211	136.000	-137.150	0.024955	0.9969	40.073	1.0031	0.7148	0.7152
26.800	27.328	136.098	-137.052	0.024924	0.9957	40.122	1.0044	0.7139	0.7143

TABLE 11 CONTINUED

SATURATED LIQUID ARGON

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
26.862	27.391	136.150	-137.000	0.024907	0.9950	40.149	1.0050	0.7134	0.7138
27.000	27.532	136.267	-136.883	0.024870	0.9935	40.209	1.0065	0.7124	0.7127
27.200	27.736	136.435	-136.715	0.024817	0.9914	40.295	1.0087	0.7108	0.7112
27.400	27.940	136.602	-136.548	0.024763	0.9892	40.383	1.0109	0.7093	0.7097
27.459	28.000	136.650	-136.500	0.024747	0.9886	40.408	1.0115	0.7088	0.7092
27.600	28.144	136.768	-136.382	0.024710	0.9871	40.470	1.0131	0.7078	0.7081
27.800	28.348	136.933	-136.217	0.024656	0.9850	40.558	1.0153	0.7062	0.7066
27.882	28.431	137.000	-136.150	0.024634	0.9841	40.594	1.0162	0.7056	0.7060
28.000	28.552	137.097	-136.053	0.024602	0.9828	40.647	1.0175	0.7047	0.7051
28.065	28.618	137.150	-136.000	0.024585	0.9821	40.676	1.0182	0.7042	0.7046
28.200	28.756	137.261	-135.889	0.024548	0.9807	40.736	1.0197	0.7031	0.7035
28.400	28.960	137.423	-135.727	0.024494	0.9785	40.826	1.0220	0.7016	0.7020
28.439	29.000	137.455	-135.695	0.024484	0.9781	40.843	1.0224	0.7013	0.7017
28.600	29.164	137.585	-135.565	0.024440	0.9763	40.916	1.0242	0.7000	0.7004
28.800	29.368	137.746	-135.404	0.024386	0.9742	41.007	1.0265	0.6985	0.6989
29.000	29.572	137.906	-135.244	0.024332	0.9720	41.098	1.0288	0.6969	0.6973
29.118	29.692	138.000	-135.150	0.024300	0.9707	41.152	1.0301	0.6960	0.6964
29.200	29.776	138.065	-135.085	0.024278	0.9698	41.190	1.0311	0.6954	0.6958
29.307	29.885	138.150	-135.000	0.024249	0.9687	41.239	1.0323	0.6946	0.6949
29.400	29.980	138.224	-134.926	0.024223	0.9677	41.283	1.0334	0.6938	0.6942
29.420	30.000	138.240	-134.910	0.024218	0.9675	41.292	1.0336	0.6937	0.6940
29.600	30.184	138.382	-134.768	0.024169	0.9655	41.376	1.0357	0.6923	0.6926
29.800	30.388	138.538	-134.612	0.024114	0.9633	41.470	1.0381	0.6907	0.6911
30.000	30.591	138.695	-134.455	0.024059	0.9611	41.564	1.0405	0.6891	0.6895
30.200	30.795	138.850	-134.300	0.024004	0.9589	41.659	1.0428	0.6876	0.6879
30.394	30.993	139.000	-134.150	0.023951	0.9568	41.752	1.0452	0.6860	0.6864
30.400	30.999	139.005	-134.145	0.023949	0.9567	41.755	1.0452	0.6860	0.6864
30.401	31.000	139.005	-134.145	0.023949	0.9567	41.755	1.0452	0.6860	0.6864
30.589	31.192	139.150	-134.000	0.023897	0.9546	41.846	1.0475	0.6845	0.6849
30.600	31.203	139.158	-133.992	0.023894	0.9545	41.851	1.0476	0.6844	0.6848
30.800	31.407	139.312	-133.838	0.023839	0.9523	41.948	1.0501	0.6828	0.6832
31.000	31.611	139.464	-133.686	0.023783	0.9501	42.046	1.0525	0.6812	0.6816
31.200	31.815	139.616	-133.534	0.023728	0.9479	42.145	1.0550	0.6796	0.6800
31.381	32.000	139.752	-133.398	0.023677	0.9459	42.235	1.0572	0.6782	0.6786
31.400	32.019	139.766	-133.384	0.023672	0.9456	42.244	1.0575	0.6780	0.6784
31.600	32.223	139.917	-133.233	0.023616	0.9434	42.344	1.0600	0.6764	0.6768
31.711	32.337	140.000	-133.150	0.023585	0.9422	42.400	1.0614	0.6755	0.6759
31.800	32.427	140.066	-133.084	0.023560	0.9412	42.445	1.0625	0.6748	0.6752
31.912	32.542	140.150	-133.000	0.023528	0.9399	42.502	1.0639	0.6739	0.6743
32.000	32.631	140.215	-132.935	0.023504	0.9389	42.547	1.0651	0.6732	0.6736
32.200	32.835	140.363	-132.787	0.023447	0.9367	42.649	1.0676	0.6716	0.6720
32.362	33.000	140.483	-132.667	0.023401	0.9348	42.733	1.0697	0.6703	0.6706
32.400	33.039	140.511	-132.639	0.023390	0.9344	42.753	1.0702	0.6700	0.6703
32.600	33.243	140.657	-132.493	0.023333	0.9321	42.857	1.0728	0.6683	0.6687
32.800	33.447	140.803	-132.347	0.023276	0.9298	42.962	1.0755	0.6667	0.6671

TABLE 11 CONTINUED

SATURATED LIQUID ARGON

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
33.000	33.651	140.949	-132.201	0.023219	0.9276	43.068	1.0781	0.6651	0.6654
33.071	33.723	141.000	-132.150	0.023199	0.9267	43.106	1.0791	0.6645	0.6648
33.200	33.855	141.094	-132.056	0.023161	0.9253	43.175	1.0808	0.6634	0.6638
33.278	33.934	141.150	-132.000	0.023139	0.9243	43.217	1.0818	0.6628	0.6631
33.343	34.000	141.196	-131.954	0.023120	0.9236	43.252	1.0827	0.6622	0.6626
33.400	34.059	141.238	-131.912	0.023104	0.9229	43.283	1.0835	0.6618	0.6621
33.600	34.262	141.381	-131.769	0.023046	0.9206	43.392	1.0862	0.6601	0.6605
33.800	34.466	141.524	-131.626	0.022987	0.9183	43.502	1.0890	0.6584	0.6588
34.000	34.670	141.666	-131.484	0.022929	0.9160	43.614	1.0918	0.6567	0.6571
34.200	34.874	141.808	-131.342	0.022870	0.9136	43.726	1.0946	0.6551	0.6554
34.323	35.000	141.895	-131.255	0.022833	0.9121	43.796	1.0963	0.6540	0.6544
34.400	35.078	141.949	-131.201	0.022811	0.9112	43.839	1.0974	0.6534	0.6537
34.473	35.153	142.000	-131.150	0.022789	0.9104	43.881	1.0984	0.6527	0.6531
34.600	35.282	142.089	-131.061	0.022751	0.9089	43.954	1.1003	0.6517	0.6520
34.687	35.371	142.150	-131.000	0.022725	0.9078	44.004	1.1015	0.6509	0.6513
34.800	35.486	142.229	-130.921	0.022692	0.9065	44.069	1.1032	0.6500	0.6503
35.000	35.690	142.368	-130.782	0.022631	0.9041	44.186	1.1061	0.6482	0.6486
35.200	35.894	142.506	-130.644	0.022571	0.9017	44.304	1.1091	0.6465	0.6469
35.304	36.000	142.578	-130.572	0.022540	0.9004	44.366	1.1106	0.6456	0.6460
35.400	36.098	142.644	-130.506	0.022510	0.8992	44.424	1.1120	0.6448	0.6451
35.600	36.302	142.782	-130.368	0.022449	0.8968	44.545	1.1151	0.6430	0.6434
35.800	36.506	142.918	-130.232	0.022388	0.8944	44.667	1.1181	0.6413	0.6416
35.920	36.628	143.000	-130.150	0.022351	0.8929	44.740	1.1200	0.6402	0.6406
36.000	36.710	143.055	-130.095	0.022326	0.8919	44.790	1.1212	0.6395	0.6398
36.141	36.853	143.150	-130.000	0.022283	0.8901	44.878	1.1234	0.6382	0.6386
36.200	36.914	143.190	-129.960	0.022264	0.8894	44.915	1.1243	0.6377	0.6381
36.285	37.000	143.247	-129.903	0.022238	0.8884	44.969	1.1257	0.6370	0.6373
36.400	37.118	143.325	-129.825	0.022202	0.8869	45.042	1.1275	0.6359	0.6363
36.600	37.322	143.460	-129.690	0.022139	0.8844	45.170	1.1307	0.6341	0.6345
36.800	37.526	143.594	-129.556	0.022075	0.8819	45.299	1.1340	0.6323	0.6327
37.000	37.729	143.727	-129.423	0.022012	0.8793	45.431	1.1372	0.6305	0.6308
37.200	37.933	143.860	-129.290	0.021947	0.8768	45.564	1.1406	0.6286	0.6290
37.265	38.000	143.903	-129.247	0.021926	0.8759	45.607	1.1417	0.6280	0.6284
37.400	38.137	143.992	-129.158	0.021883	0.8742	45.698	1.1439	0.6268	0.6271
37.412	38.150	144.000	-129.150	0.021879	0.8740	45.706	1.1441	0.6267	0.6270
37.600	38.341	144.124	-129.026	0.021817	0.8716	45.835	1.1474	0.6249	0.6253
37.640	38.382	144.150	-129.000	0.021804	0.8710	45.862	1.1480	0.6245	0.6249
37.800	38.545	144.255	-128.895	0.021752	0.8689	45.973	1.1508	0.6230	0.6234
38.000	38.749	144.386	-128.764	0.021686	0.8663	46.114	1.1543	0.6211	0.6215
38.200	38.953	144.516	-128.634	0.021619	0.8636	46.256	1.1579	0.6192	0.6196
38.246	39.000	144.546	-128.604	0.021603	0.8630	46.289	1.1587	0.6188	0.6191
38.400	39.157	144.646	-128.504	0.021551	0.8609	46.401	1.1615	0.6173	0.6176
38.600	39.361	144.775	-128.375	0.021484	0.8582	46.547	1.1652	0.6154	0.6157
38.800	39.565	144.903	-128.247	0.021415	0.8555	46.696	1.1689	0.6134	0.6137
38.951	39.719	145.000	-128.150	0.021363	0.8534	46.810	1.1718	0.6119	0.6122

TABLE 11 CONTINUED

SATURATED LIQUID ARGON

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
39.000	39.769	145.031	-128.119	0.021346	0.8527	46.847	1.1727	0.6114	0.6117
39.186	39.958	145.150	-128.000	0.021281	0.8501	46.990	1.1763	0.6096	0.6099
39.200	39.973	145.159	-127.991	0.021276	0.8499	47.001	1.1766	0.6094	0.6097
39.227	40.000	145.176	-127.974	0.021267	0.8496	47.022	1.1771	0.6091	0.6095
39.400	40.177	145.286	-127.864	0.021206	0.8471	47.157	1.1805	0.6074	0.6077
39.600	40.381	145.413	-127.737	0.021134	0.8443	47.316	1.1844	0.6054	0.6057
39.800	40.585	145.539	-127.611	0.021063	0.8414	47.478	1.1885	0.6033	0.6036
40.000	40.789	145.665	-127.485	0.020990	0.8385	47.642	1.1926	0.6012	0.6015
40.200	40.993	145.790	-127.360	0.020916	0.8356	47.809	1.1968	0.5991	0.5994
40.207	41.000	145.794	-127.356	0.020914	0.8355	47.815	1.1969	0.5990	0.5994
40.400	41.197	145.914	-127.236	0.020842	0.8326	47.980	1.2011	0.5970	0.5973
40.538	41.337	146.000	-127.150	0.020790	0.8305	48.099	1.2040	0.5955	0.5958
40.600	41.400	146.039	-127.111	0.020767	0.8296	48.153	1.2054	0.5948	0.5952
40.780	41.584	146.150	-127.000	0.020699	0.8269	48.313	1.2094	0.5929	0.5932
40.800	41.604	146.162	-126.988	0.020691	0.8266	48.330	1.2098	0.5927	0.5930
41.000	41.808	146.286	-126.864	0.020614	0.8235	48.511	1.2144	0.5904	0.5908
41.188	42.000	146.401	-126.749	0.020541	0.8206	48.684	1.2187	0.5883	0.5887
41.200	42.012	146.408	-126.742	0.020536	0.8204	48.695	1.2190	0.5882	0.5885
41.400	42.216	146.531	-126.619	0.020457	0.8172	48.883	1.2237	0.5859	0.5863
41.600	42.420	146.653	-126.497	0.020377	0.8140	49.076	1.2285	0.5837	0.5840
41.800	42.624	146.774	-126.376	0.020295	0.8108	49.272	1.2334	0.5813	0.5816
42.000	42.828	146.895	-126.255	0.020213	0.8075	49.473	1.2384	0.5790	0.5793
42.169	43.000	146.997	-126.153	0.020142	0.8047	49.646	1.2428	0.5769	0.5773
42.174	43.006	147.000	-126.150	0.020140	0.8046	49.652	1.2429	0.5769	0.5772
42.200	43.032	147.016	-126.134	0.020129	0.8041	49.679	1.2436	0.5766	0.5769
42.400	43.236	147.136	-126.014	0.020044	0.8007	49.890	1.2489	0.5741	0.5744
42.424	43.260	147.150	-126.000	0.020034	0.8003	49.915	1.2495	0.5738	0.5741
42.600	43.440	147.255	-125.895	0.019958	0.7973	50.106	1.2543	0.5717	0.5720
42.800	43.644	147.375	-125.775	0.019870	0.7938	50.328	1.2598	0.5691	0.5694
43.000	43.848	147.493	-125.657	0.019780	0.7902	50.555	1.2655	0.5666	0.5669
43.149	44.000	147.582	-125.568	0.019712	0.7875	50.729	1.2699	0.5646	0.5649
43.200	44.052	147.612	-125.538	0.019689	0.7865	50.789	1.2714	0.5640	0.5643
43.400	44.256	147.730	-125.420	0.019596	0.7828	51.030	1.2774	0.5613	0.5616
43.600	44.460	147.847	-125.303	0.019501	0.7790	51.278	1.2836	0.5586	0.5589
43.800	44.664	147.964	-125.186	0.019405	0.7752	51.534	1.2900	0.5558	0.5561
43.861	44.726	148.000	-125.150	0.019375	0.7740	51.614	1.2920	0.5550	0.5553
44.000	44.868	148.081	-125.069	0.019306	0.7712	51.798	1.2966	0.5530	0.5533
44.119	44.989	148.150	-125.000	0.019246	0.7688	51.959	1.3007	0.5513	0.5516
44.130	45.000	148.156	-124.994	0.019240	0.7686	51.974	1.3010	0.5511	0.5514
44.200	45.071	148.197	-124.953	0.019205	0.7672	52.071	1.3035	0.5501	0.5504
44.400	45.275	148.313	-124.837	0.019101	0.7630	52.353	1.3105	0.5471	0.5474
44.600	45.479	148.428	-124.722	0.018995	0.7588	52.646	1.3179	0.5441	0.5444
44.800	45.683	148.543	-124.607	0.018886	0.7545	52.950	1.3255	0.5410	0.5412
45.000	45.887	148.658	-124.492	0.018774	0.7500	53.266	1.3334	0.5377	0.5380
45.111	46.000	148.721	-124.429	0.018710	0.7474	53.446	1.3379	0.5359	0.5362

TABLE 11 CONTINUED

SATURATED LIQUID ARGON

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
45.200	46.091	148.772	-124.378	0.018658	0.7454	53.595	1.3416	0.5344	0.5347
45.400	46.295	148.886	-124.264	0.018539	0.7406	53.939	1.3502	0.5310	0.5313
45.600	46.499	149.000	-124.150	0.018417	0.7357	54.299	1.3592	0.5275	0.5278
45.601	46.500	149.000	-124.150	0.018416	0.7357	54.300	1.3593	0.5275	0.5278
45.800	46.703	149.113	-124.037	0.018289	0.7306	54.677	1.3687	0.5239	0.5241
45.866	46.771	149.150	-124.000	0.018246	0.7289	54.806	1.3719	0.5226	0.5229
46.000	46.907	149.225	-123.925	0.018157	0.7253	55.074	1.3787	0.5201	0.5204
46.091	47.000	149.277	-123.873	0.018095	0.7229	55.263	1.3834	0.5183	0.5186
46.200	47.111	149.338	-123.812	0.018020	0.7199	55.494	1.3892	0.5161	0.5164
46.400	47.315	149.450	-123.700	0.017877	0.7141	55.939	1.4003	0.5120	0.5123
46.600	47.519	149.561	-123.589	0.017726	0.7081	56.413	1.4122	0.5077	0.5080
46.800	47.723	149.672	-123.478	0.017569	0.7018	56.920	1.4248	0.5032	0.5035
47.000	47.927	149.783	-123.367	0.017402	0.6952	57.465	1.4385	0.4984	0.4987
47.072	48.000	149.823	-123.327	0.017340	0.6927	57.672	1.4437	0.4967	0.4969
47.200	48.131	149.893	-123.257	0.017225	0.6881	58.055	1.4533	0.4934	0.4936
47.394	48.328	150.000	-123.150	0.017042	0.6808	58.680	1.4689	0.4881	0.4884
47.400	48.335	150.003	-123.147	0.017036	0.6805	58.700	1.4694	0.4880	0.4882
47.600	48.538	150.113	-123.037	0.016832	0.6724	59.412	1.4872	0.4821	0.4824
47.668	48.608	150.150	-123.000	0.016759	0.6695	59.671	1.4937	0.4800	0.4803
47.800	48.742	150.222	-122.928	0.016609	0.6635	60.207	1.5071	0.4757	0.4760
48.000	48.946	150.331	-122.819	0.016363	0.6537	61.112	1.5298	0.4687	0.4690
48.053	49.000	150.360	-122.790	0.016294	0.6509	61.372	1.5363	0.4667	0.4670
48.200	49.150	150.440	-122.710	0.016086	0.6426	62.165	1.5562	0.4608	0.4610
48.400	49.354	150.548	-122.602	0.015764	0.6297	63.436	1.5880	0.4515	0.4518
48.600	49.558	150.656	-122.494	0.015370	0.6140	65.062	1.6287	0.4402	0.4405
48.800	49.762	150.763	-122.387	0.014830	0.5924	67.431	1.6880	0.4248	0.4250
48.981	49.946	150.860	-122.290	0.013412	0.5358	74.558	1.8664	0.3842	0.3844

DENSITY OF COMPRESSED LIQUID ARGON

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
85.0	1.0093	1.0093	1.0095	1.0100	1.0104	1.0108	1.0112	1.0123	1.0133	1.0143	1.0153	1.0163	1.0173
-188.15	1.0058	1.0099	1.0101	1.0105	1.0109	1.0113	1.0118	1.0128	1.0138	1.0149	1.0159	1.0169	1.0179
0.790	1.4076	1.4077	1.4080	1.4086	1.4092	1.4097	1.4103	1.4118	1.4132	1.4146	1.4160	1.4174	1.4188
85.1	1.0089	1.0089	1.0091	1.0095	1.0100	1.0104	1.0108	1.0118	1.0129	1.0139	1.0149	1.0159	1.0169
-188.05	1.0094	1.0094	1.0097	1.0101	1.0105	1.0109	1.0113	1.0124	1.0134	1.0144	1.0155	1.0165	1.0175
0.799	1.4070	1.4071	1.4074	1.4080	1.4086	1.4092	1.4097	1.4112	1.4126	1.4141	1.4155	1.4169	1.4183
85.2		1.0085	1.0087	1.0091	1.0095	1.0100	1.0104	1.0114	1.0125	1.0135	1.0145	1.0155	1.0165
-187.95		1.0090	1.0092	1.0097	1.0101	1.0105	1.0109	1.0120	1.0130	1.0140	1.0150	1.0160	1.0170
0.808		1.4065	1.4068	1.4074	1.4080	1.4086	1.4091	1.4106	1.4120	1.4135	1.4149	1.4163	1.4177
85.3		1.0080	1.0083	1.0087	1.0091	1.0095	1.0100	1.0110	1.0120	1.0131	1.0141	1.0151	1.0161
-187.85		1.0086	1.0088	1.0092	1.0097	1.0101	1.0105	1.0115	1.0126	1.0136	1.0146	1.0156	1.0166
0.817		1.4059	1.4062	1.4068	1.4074	1.4080	1.4086	1.4100	1.4115	1.4129	1.4143	1.4157	1.4171
85.4		1.0076	1.0078	1.0083	1.0087	1.0091	1.0095	1.0106	1.0116	1.0126	1.0137	1.0147	1.0157
-187.75		1.0082	1.0084	1.0088	1.0092	1.0097	1.0101	1.0111	1.0122	1.0132	1.0142	1.0152	1.0162
0.826		1.4053	1.4056	1.4062	1.4068	1.4074	1.4080	1.4094	1.4109	1.4123	1.4137	1.4151	1.4165
85.5		1.0072	1.0074	1.0078	1.0083	1.0087	1.0091	1.0102	1.0112	1.0122	1.0132	1.0143	1.0153
-187.65		1.0077	1.0079	1.0084	1.0088	1.0092	1.0097	1.0107	1.0117	1.0128	1.0138	1.0148	1.0158
0.835		1.4047	1.4050	1.4056	1.4062	1.4068	1.4074	1.4088	1.4103	1.4117	1.4132	1.4146	1.4160
85.6		1.0068	1.0070	1.0074	1.0078	1.0083	1.0087	1.0097	1.0108	1.0118	1.0128	1.0138	1.0148
-187.55		1.0073	1.0075	1.0079	1.0084	1.0088	1.0092	1.0103	1.0113	1.0124	1.0134	1.0144	1.0154
0.844		1.4041	1.4044	1.4050	1.4056	1.4062	1.4068	1.4083	1.4097	1.4111	1.4126	1.4140	1.4154
85.7		1.0063	1.0065	1.0070	1.0074	1.0078	1.0083	1.0093	1.0104	1.0114	1.0124	1.0134	1.0144
-187.45		1.0069	1.0071	1.0075	1.0079	1.0084	1.0088	1.0099	1.0109	1.0119	1.0130	1.0140	1.0150
0.854		1.4035	1.4038	1.4044	1.4050	1.4056	1.4062	1.4077	1.4091	1.4106	1.4120	1.4134	1.4148
85.8		1.0059	1.0061	1.0065	1.0070	1.0074	1.0078	1.0089	1.0099	1.0110	1.0120	1.0130	1.0140
-187.35		1.0064	1.0067	1.0071	1.0075	1.0079	1.0084	1.0094	1.0105	1.0115	1.0125	1.0136	1.0146
0.863		1.4029	1.4032	1.4038	1.4044	1.4050	1.4056	1.4071	1.4085	1.4100	1.4114	1.4128	1.4142
85.9		1.0055	1.0057	1.0061	1.0065	1.0070	1.0074	1.0085	1.0095	1.0106	1.0116	1.0126	1.0136
-187.25		1.0060	1.0062	1.0067	1.0071	1.0075	1.0079	1.0090	1.0101	1.0111	1.0121	1.0131	1.0142
0.873		1.4023	1.4026	1.4032	1.4038	1.4044	1.4050	1.4065	1.4079	1.4094	1.4108	1.4123	1.4137
86.0		1.0050	1.0053	1.0057	1.0061	1.0065	1.0070	1.0080	1.0091	1.0101	1.0112	1.0122	1.0132
-187.15		1.0056	1.0058	1.0062	1.0067	1.0071	1.0075	1.0086	1.0096	1.0107	1.0117	1.0127	1.0137
0.882		1.4017	1.4020	1.4026	1.4032	1.4038	1.4044	1.4059	1.4074	1.4088	1.4102	1.4117	1.4131
86.1		1.0046	1.0048	1.0053	1.0057	1.0061	1.0065	1.0076	1.0087	1.0097	1.0107	1.0118	1.0128
-187.05		1.0051	1.0054	1.0058	1.0062	1.0067	1.0071	1.0082	1.0092	1.0103	1.0113	1.0123	1.0133
0.892		1.4011	1.4014	1.4020	1.4026	1.4032	1.4038	1.4053	1.4068	1.4082	1.4097	1.4111	1.4125
86.2		1.0042	1.0044	1.0048	1.0053	1.0057	1.0061	1.0072	1.0082	1.0093	1.0103	1.0114	1.0124
-186.95		1.0047	1.0049	1.0054	1.0058	1.0062	1.0067	1.0077	1.0088	1.0098	1.0109	1.0119	1.0129
0.902		1.4005	1.4008	1.4014	1.4020	1.4026	1.4032	1.4047	1.4062	1.4076	1.4091	1.4105	1.4119
86.3		1.0037	1.0040	1.0044	1.0048	1.0053	1.0057	1.0068	1.0078	1.0089	1.0099	1.0109	1.0120
-186.85		1.0043	1.0045	1.0049	1.0054	1.0058	1.0062	1.0073	1.0084	1.0094	1.0104	1.0115	1.0125
0.912		1.3999	1.4002	1.4008	1.4014	1.4020	1.4026	1.4041	1.4056	1.4070	1.4085	1.4099	1.4113
86.4		1.0033	1.0035	1.0040	1.0044	1.0048	1.0053	1.0063	1.0074	1.0084	1.0095	1.0105	1.0115
-186.75		1.0039	1.0041	1.0045	1.0049	1.0054	1.0058	1.0069	1.0079	1.0090	1.0100	1.0111	1.0121
0.922		1.3993	1.3996	1.4002	1.4008	1.4014	1.4020	1.4035	1.4050	1.4065	1.4079	1.4093	1.4108
86.5		1.0029	1.0031	1.0035	1.0040	1.0044	1.0048	1.0059	1.0070	1.0080	1.0091	1.0101	1.0111
-186.65		1.0034	1.0036	1.0041	1.0045	1.0049	1.0054	1.0064	1.0075	1.0086	1.0096	1.0106	1.0117
0.932		1.3987	1.3990	1.3996	1.4002	1.4008	1.4014	1.4029	1.4044	1.4059	1.4073	1.4088	1.4102
86.6		1.0024	1.0027	1.0031	1.0035	1.0040	1.0044	1.0055	1.0065	1.0076	1.0086	1.0097	1.0107
-186.55		1.0030	1.0032	1.0036	1.0041	1.0045	1.0049	1.0060	1.0071	1.0081	1.0092	1.0102	1.0112
0.942		1.3981	1.3984	1.3990	1.3996	1.4002	1.4008	1.4023	1.4038	1.4053	1.4067	1.4082	1.4096
86.7		1.0020	1.0022	1.0027	1.0031	1.0035	1.0040	1.0050	1.0061	1.0072	1.0082	1.0093	1.0103
-186.45		1.0025	1.0028	1.0032	1.0036	1.0041	1.0045	1.0056	1.0067	1.0077	1.0088	1.0098	1.0108
0.952		1.3975	1.3978	1.3984	1.3990	1.3996	1.4002	1.4017	1.4032	1.4047	1.4061	1.4076	1.4090
86.8		1.0016	1.0018	1.0022	1.0027	1.0031	1.0035	1.0046	1.0057	1.0067	1.0078	1.0088	1.0099
-186.35		1.0021	1.0023	1.0028	1.0032	1.0036	1.0041	1.0052	1.0062	1.0073	1.0083	1.0094	1.0104
0.962		1.3969	1.3972	1.3978	1.3984	1.3990	1.3996	1.4011	1.4026	1.4041	1.4056	1.4070	1.4084
86.9		1.0011	1.0014	1.0018	1.0022	1.0027	1.0031	1.0042	1.0053	1.0063	1.0074	1.0084	1.0094
-186.25		1.0017	1.0019	1.0023	1.0028	1.0032	1.0037	1.0047	1.0058	1.0069	1.0079	1.0089	1.0100
0.973		1.3963	1.3966	1.3972	1.3978	1.3984	1.3990	1.4005	1.4020	1.4035	1.4050	1.4064	1.4079

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
87.0		1.0007	1.0009	1.0014	1.0018	1.0022	1.0027	1.0038	1.0048	1.0059	1.0070	1.0080	1.0090
-186.15		1.0012	1.0015	1.0019	1.0023	1.0028	1.0032	1.0043	1.0054	1.0064	1.0075	1.0085	1.0096
0.983		1.3957	1.3960	1.3966	1.3972	1.3978	1.3984	1.3999	1.4014	1.4029	1.4044	1.4058	1.4073
87.1		1.0003	1.0005	1.0009	1.0014	1.0018	1.0022	1.0033	1.0044	1.0055	1.0065	1.0076	1.0086
-186.05		1.0008	1.0010	1.0015	1.0019	1.0023	1.0028	1.0039	1.0049	1.0060	1.0071	1.0081	1.0092
0.994		1.3950	1.3954	1.3960	1.3966	1.3972	1.3978	1.3993	1.4008	1.4023	1.4038	1.4052	1.4067
87.2			1.0000	1.0005	1.0009	1.0014	1.0018	1.0029	1.0040	1.0050	1.0061	1.0072	1.0082
-185.95			1.0006	1.0010	1.0015	1.0019	1.0024	1.0034	1.0045	1.0056	1.0066	1.0077	1.0087
1.004			1.3947	1.3954	1.3960	1.3966	1.3972	1.3987	1.4002	1.4017	1.4032	1.4047	1.4061
87.3			0.9996	1.0001	1.0005	1.0009	1.0014	1.0025	1.0035	1.0046	1.0057	1.0067	1.0078
-185.85			1.0001	1.0006	1.0010	1.0015	1.0019	1.0030	1.0041	1.0052	1.0062	1.0073	1.0083
1.015			1.3941	1.3948	1.3954	1.3960	1.3966	1.3981	1.3996	1.4011	1.4026	1.4041	1.4055
87.4			0.9992	0.9996	1.0001	1.0005	1.0009	1.0020	1.0031	1.0042	1.0053	1.0063	1.0073
-185.75			0.9997	1.0002	1.0006	1.0010	1.0015	1.0026	1.0037	1.0047	1.0058	1.0069	1.0079
1.026			1.3935	1.3941	1.3948	1.3954	1.3960	1.3975	1.3990	1.4005	1.4020	1.4035	1.4049
87.5			0.9987	0.9992	0.9996	1.0001	1.0005	1.0016	1.0027	1.0038	1.0048	1.0059	1.0069
-185.65			0.9993	0.9997	1.0002	1.0006	1.0010	1.0021	1.0032	1.0043	1.0054	1.0064	1.0075
1.037			1.3929	1.3935	1.3942	1.3948	1.3954	1.3969	1.3984	1.3999	1.4014	1.4029	1.4043
87.6			0.9983	0.9987	0.9992	0.9996	1.0001	1.0012	1.0023	1.0033	1.0044	1.0055	1.0065
-185.55			0.9988	0.9993	0.9997	1.0002	1.0006	1.0017	1.0028	1.0039	1.0049	1.0060	1.0071
1.048			1.3923	1.3929	1.3935	1.3942	1.3948	1.3963	1.3978	1.3993	1.4008	1.4023	1.4038
87.7			0.9979	0.9983	0.9988	0.9992	0.9996	1.0007	1.0018	1.0029	1.0040	1.0050	1.0061
-185.45			0.9984	0.9988	0.9993	0.9997	1.0002	1.0013	1.0024	1.0035	1.0045	1.0056	1.0066
1.059			1.3917	1.3923	1.3929	1.3936	1.3942	1.3957	1.3972	1.3987	1.4002	1.4017	1.4032
87.8			0.9974	0.9979	0.9983	0.9988	0.9992	1.0003	1.0014	1.0025	1.0036	1.0046	1.0057
-185.35			0.9980	0.9984	0.9989	0.9993	0.9997	1.0008	1.0019	1.0030	1.0041	1.0052	1.0062
1.070			1.3911	1.3917	1.3923	1.3929	1.3936	1.3951	1.3966	1.3981	1.3996	1.4011	1.4026
87.9			0.9970	0.9974	0.9979	0.9983	0.9988	0.9999	1.0010	1.0021	1.0031	1.0042	1.0052
-185.25			0.9975	0.9980	0.9984	0.9989	0.9993	1.0004	1.0015	1.0026	1.0037	1.0047	1.0058
1.081			1.3905	1.3911	1.3917	1.3923	1.3930	1.3945	1.3960	1.3975	1.3990	1.4005	1.4020
88.0			0.9965	0.9970	0.9974	0.9979	0.9983	0.9994	1.0005	1.0016	1.0027	1.0038	1.0048
-185.15			0.9971	0.9975	0.9980	0.9984	0.9989	1.0000	1.0011	1.0022	1.0032	1.0043	1.0054
1.092			1.3898	1.3905	1.3911	1.3917	1.3923	1.3939	1.3954	1.3969	1.3984	1.3999	1.4014
88.1			0.9961	0.9965	0.9970	0.9974	0.9979	0.9990	1.0001	1.0012	1.0023	1.0033	1.0044
-185.05			0.9966	0.9971	0.9975	0.9980	0.9984	0.9995	1.0006	1.0017	1.0028	1.0039	1.0049
1.104			1.3892	1.3899	1.3905	1.3911	1.3917	1.3933	1.3948	1.3963	1.3978	1.3993	1.4008
88.2			0.9956	0.9961	0.9966	0.9970	0.9975	0.9986	0.9997	1.0008	1.0018	1.0029	1.0040
-184.95			0.9962	0.9966	0.9971	0.9975	0.9980	0.9991	1.0002	1.0013	1.0024	1.0035	1.0045
1.115			1.3886	1.3892	1.3899	1.3905	1.3911	1.3927	1.3942	1.3957	1.3972	1.3987	1.4002
88.3			0.9952	0.9957	0.9961	0.9966	0.9970	0.9981	0.9992	1.0003	1.0014	1.0025	1.0035
-184.85			0.9957	0.9962	0.9967	0.9971	0.9976	0.9987	0.9998	1.0009	1.0020	1.0030	1.0041
1.127			1.3880	1.3886	1.3893	1.3899	1.3905	1.3921	1.3936	1.3951	1.3966	1.3981	1.3996
88.4			0.9948	0.9952	0.9957	0.9961	0.9966	0.9977	0.9988	0.9999	1.0010	1.0021	1.0031
-184.75			0.9953	0.9958	0.9962	0.9967	0.9971	0.9982	0.9993	1.0004	1.0015	1.0026	1.0037
1.139			1.3874	1.3880	1.3886	1.3893	1.3899	1.3915	1.3930	1.3945	1.3960	1.3975	1.3990
88.5			0.9943	0.9948	0.9952	0.9957	0.9961	0.9973	0.9984	0.9995	1.0006	1.0016	1.0027
-184.65			0.9949	0.9953	0.9958	0.9962	0.9967	0.9978	0.9989	1.0000	1.0011	1.0022	1.0032
1.150			1.3868	1.3874	1.3880	1.3887	1.3893	1.3909	1.3924	1.3939	1.3954	1.3969	1.3984
88.6			0.9939	0.9943	0.9948	0.9952	0.9957	0.9968	0.9979	0.9990	1.0001	1.0012	1.0023
-184.55			0.9944	0.9949	0.9953	0.9958	0.9962	0.9974	0.9985	0.9996	1.0007	1.0017	1.0028
1.162			1.3861	1.3868	1.3874	1.3880	1.3887	1.3902	1.3918	1.3933	1.3948	1.3964	1.3978
88.7			0.9934	0.9939	0.9943	0.9948	0.9953	0.9964	0.9975	0.9986	0.9997	1.0008	1.0018
-184.45			0.9940	0.9944	0.9949	0.9953	0.9958	0.9969	0.9980	0.9991	1.0002	1.0013	1.0024
1.174			1.3855	1.3862	1.3868	1.3874	1.3881	1.3896	1.3912	1.3927	1.3942	1.3958	1.3972
88.8			0.9930	0.9934	0.9939	0.9944	0.9948	0.9959	0.9971	0.9982	0.9993	1.0003	1.0014
-184.35			0.9935	0.9940	0.9944	0.9949	0.9954	0.9965	0.9976	0.9987	0.9998	1.0008	1.0020
1.186			1.3849	1.3855	1.3862	1.3868	1.3874	1.3890	1.3906	1.3921	1.3936	1.3952	1.3967
88.9			0.9925	0.9930	0.9935	0.9939	0.9944	0.9955	0.9966	0.9977	0.9988	0.9999	1.0010
-184.25			0.9931	0.9935	0.9940	0.9945	0.9949	0.9960	0.9972	0.9983	0.9994	1.0005	1.0015
1.199			1.3843	1.3849	1.3856	1.3862	1.3868	1.3884	1.3900	1.3915	1.3930	1.3946	1.3961

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/OM3

BAR KP/CM2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
89.0			0.9921	0.9926	0.9930	0.9935	0.9939	0.9951	0.9962	0.9973	0.9984	0.9995	1.0006
-184.15			0.9926	0.9931	0.9936	0.9940	0.9945	0.9956	0.9967	0.9978	0.9989	1.0000	1.0011
1.211			1.3837	1.3843	1.3849	1.3856	1.3862	1.3878	1.3894	1.3909	1.3924	1.3940	1.3955
89.1			0.9916	0.9921	0.9926	0.9930	0.9935	0.9946	0.9957	0.9969	0.9980	0.9991	1.0001
-184.05			0.9922	0.9926	0.9931	0.9936	0.9940	0.9952	0.9963	0.9974	0.9985	0.9996	1.0007
1.223			1.3830	1.3837	1.3843	1.3850	1.3856	1.3872	1.3887	1.3903	1.3918	1.3934	1.3949
89.2			0.9912	0.9917	0.9921	0.9926	0.9930	0.9942	0.9953	0.9964	0.9975	0.9986	0.9997
-183.95			0.9917	0.9922	0.9927	0.9931	0.9936	0.9947	0.9958	0.9970	0.9981	0.9992	1.0002
1.236			1.3824	1.3831	1.3837	1.3843	1.3850	1.3866	1.3881	1.3897	1.3912	1.3928	1.3943
89.3			0.9908	0.9912	0.9917	0.9921	0.9926	0.9937	0.9949	0.9960	0.9971	0.9982	0.9993
-183.85			0.9913	0.9918	0.9922	0.9927	0.9931	0.9943	0.9954	0.9965	0.9976	0.9987	0.9998
1.248			1.3818	1.3824	1.3831	1.3837	1.3844	1.3860	1.3875	1.3891	1.3906	1.3922	1.3937
89.4			0.9903	0.9908	0.9912	0.9917	0.9922	0.9933	0.9944	0.9956	0.9967	0.9978	0.9988
-183.75			0.9908	0.9913	0.9918	0.9922	0.9927	0.9938	0.9950	0.9961	0.9972	0.9983	0.9994
1.261			1.3812	1.3818	1.3825	1.3831	1.3837	1.3853	1.3869	1.3885	1.3900	1.3916	1.3931
89.5			0.9899	0.9903	0.9908	0.9913	0.9917	0.9929	0.9940	0.9951	0.9962	0.9973	0.9984
-183.65			0.9904	0.9909	0.9913	0.9918	0.9923	0.9934	0.9945	0.9957	0.9968	0.9979	0.9990
1.274			1.3805	1.3812	1.3818	1.3825	1.3831	1.3847	1.3863	1.3879	1.3894	1.3910	1.3925
89.6			0.9894	0.9899	0.9903	0.9908	0.9913	0.9924	0.9936	0.9947	0.9958	0.9969	0.9980
-183.55			0.9899	0.9904	0.9909	0.9913	0.9918	0.9930	0.9941	0.9952	0.9963	0.9974	0.9985
1.286			1.3799	1.3806	1.3812	1.3819	1.3825	1.3841	1.3857	1.3873	1.3888	1.3903	1.3919
89.7			0.9890	0.9894	0.9899	0.9904	0.9908	0.9920	0.9931	0.9942	0.9954	0.9965	0.9976
-183.45			0.9895	0.9900	0.9904	0.9909	0.9914	0.9925	0.9937	0.9948	0.9959	0.9970	0.9981
1.299			1.3793	1.3799	1.3806	1.3812	1.3819	1.3835	1.3851	1.3866	1.3882	1.3897	1.3913
89.8			0.9885	0.9890	0.9894	0.9899	0.9904	0.9915	0.9927	0.9938	0.9949	0.9960	0.9971
-183.35			0.9890	0.9895	0.9900	0.9905	0.9909	0.9921	0.9932	0.9943	0.9955	0.9966	0.9977
1.312			1.3787	1.3793	1.3800	1.3806	1.3813	1.3829	1.3845	1.3860	1.3876	1.3891	1.3907
89.9			0.9881	0.9885	0.9890	0.9895	0.9899	0.9911	0.9922	0.9934	0.9945	0.9956	0.9967
-183.25			0.9886	0.9891	0.9895	0.9900	0.9905	0.9916	0.9928	0.9939	0.9950	0.9961	0.9972
1.326			1.3780	1.3787	1.3793	1.3800	1.3806	1.3823	1.3838	1.3854	1.3870	1.3885	1.3901
90.0			0.9876	0.9881	0.9886	0.9890	0.9895	0.9906	0.9918	0.9929	0.9941	0.9952	0.9963
-183.15			0.9881	0.9886	0.9891	0.9896	0.9900	0.9912	0.9923	0.9935	0.9946	0.9957	0.9968
1.339			1.3774	1.3781	1.3787	1.3794	1.3800	1.3816	1.3832	1.3848	1.3864	1.3879	1.3895
90.1			0.9872	0.9876	0.9881	0.9886	0.9890	0.9902	0.9914	0.9925	0.9936	0.9947	0.9958
-183.05			0.9877	0.9882	0.9886	0.9891	0.9896	0.9907	0.9919	0.9930	0.9942	0.9953	0.9964
1.352			1.3768	1.3774	1.3781	1.3787	1.3794	1.3810	1.3826	1.3842	1.3858	1.3873	1.3889
90.2			0.9867	0.9872	0.9877	0.9881	0.9886	0.9898	0.9909	0.9921	0.9932	0.9943	0.9954
-182.95			0.9872	0.9877	0.9882	0.9887	0.9891	0.9903	0.9914	0.9926	0.9937	0.9948	0.9955
1.366			1.3761	1.3768	1.3775	1.3781	1.3788	1.3804	1.3820	1.3836	1.3852	1.3867	1.3883
90.3			0.9863	0.9867	0.9872	0.9877	0.9881	0.9893	0.9905	0.9916	0.9927	0.9939	0.9950
-182.85			0.9868	0.9873	0.9877	0.9882	0.9887	0.9898	0.9910	0.9921	0.9933	0.9944	0.9955
1.379			1.3755	1.3762	1.3768	1.3775	1.3781	1.3798	1.3814	1.3830	1.3846	1.3861	1.3877
90.4			0.9858	0.9863	0.9868	0.9872	0.9877	0.9889	0.9900	0.9912	0.9923	0.9934	0.9945
-182.75			0.9863	0.9868	0.9873	0.9878	0.9882	0.9894	0.9906	0.9917	0.9928	0.9940	0.9951
1.393			1.3749	1.3755	1.3762	1.3769	1.3775	1.3792	1.3808	1.3824	1.3839	1.3855	1.3871
90.5			0.9853	0.9858	0.9863	0.9868	0.9872	0.9884	0.9896	0.9907	0.9919	0.9930	0.9941
-182.65			0.9859	0.9864	0.9868	0.9873	0.9878	0.9890	0.9901	0.9913	0.9924	0.9935	0.9946
1.407			1.3742	1.3749	1.3756	1.3762	1.3769	1.3785	1.3801	1.3817	1.3833	1.3849	1.3865
90.6			0.9849	0.9854	0.9859	0.9863	0.9868	0.9880	0.9891	0.9903	0.9914	0.9926	0.9937
-182.55			0.9854	0.9859	0.9864	0.9869	0.9873	0.9885	0.9897	0.9908	0.9920	0.9931	0.9947
1.420			1.3736	1.3743	1.3749	1.3756	1.3763	1.3779	1.3795	1.3811	1.3827	1.3843	1.3858
90.7			0.9844	0.9849	0.9854	0.9859	0.9864	0.9875	0.9887	0.9898	0.9910	0.9921	0.9932
-182.45			0.9850	0.9855	0.9859	0.9864	0.9869	0.9881	0.9892	0.9904	0.9915	0.9927	0.9938
1.434			1.3730	1.3736	1.3743	1.3750	1.3756	1.3773	1.3789	1.3805	1.3821	1.3837	1.3852
90.8			0.9840	0.9845	0.9849	0.9854	0.9859	0.9871	0.9882	0.9894	0.9905	0.9917	0.9928
-182.35			0.9845	0.9850	0.9855	0.9860	0.9864	0.9876	0.9888	0.9899	0.9911	0.9922	0.9933
1.448			1.3723	1.3730	1.3737	1.3743	1.3750	1.3767	1.3783	1.3799	1.3815	1.3831	1.3846
90.9			0.9835	0.9840	0.9845	0.9850	0.9854	0.9866	0.9878	0.9890	0.9901	0.9912	0.9924
-182.25			0.9841	0.9845	0.9850	0.9855	0.9860	0.9872	0.9883	0.9895	0.9906	0.9918	0.9929
1.463			1.3717	1.3724	1.3731	1.3737	1.3744	1.3760	1.3777	1.3793	1.3809	1.3825	1.3840

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES
1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM3

BAR KP/CM2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
91.0			0.9831	0.9836	0.9840	0.9845	0.9850	0.9862	0.9874	0.9885	0.9897	0.9908	0.9919
-182.15			0.9836	0.9841	0.9846	0.9851	0.9855	0.9867	0.9879	0.9891	0.9902	0.9913	0.9925
1.477			1.3711	1.3717	1.3724	1.3731	1.3738	1.3754	1.3770	1.3787	1.3803	1.3819	1.3834
91.1			0.9826	0.9831	0.9836	0.9841	0.9845	0.9857	0.9869	0.9881	0.9892	0.9904	0.9915
-182.05			0.9831	0.9836	0.9841	0.9846	0.9851	0.9863	0.9874	0.9886	0.9898	0.9909	0.9920
1.491			1.3704	1.3711	1.3718	1.3725	1.3731	1.3748	1.3764	1.3780	1.3797	1.3812	1.3828
91.2			0.9822	0.9826	0.9831	0.9836	0.9841	0.9853	0.9865	0.9876	0.9888	0.9899	0.9911
-181.95			0.9827	0.9832	0.9837	0.9841	0.9846	0.9858	0.9870	0.9882	0.9893	0.9905	0.9916
1.506			1.3698	1.3705	1.3712	1.3718	1.3725	1.3742	1.3758	1.3774	1.3790	1.3806	1.3822
91.3			0.9817	0.9822	0.9827	0.9832	0.9836	0.9848	0.9860	0.9872	0.9883	0.9895	0.9906
-181.85			0.9822	0.9827	0.9832	0.9837	0.9842	0.9854	0.9866	0.9877	0.9889	0.9900	0.9912
1.520			1.3692	1.3698	1.3705	1.3712	1.3719	1.3735	1.3752	1.3768	1.3784	1.3800	1.3816
91.4			0.9812	0.9817	0.9822	0.9827	0.9832	0.9844	0.9856	0.9867	0.9879	0.9890	0.9902
-181.75			0.9818	0.9823	0.9828	0.9832	0.9837	0.9849	0.9861	0.9873	0.9884	0.9896	0.9907
1.535			1.3685	1.3692	1.3699	1.3706	1.3712	1.3729	1.3746	1.3762	1.3778	1.3794	1.3810
91.5			0.9808	0.9813	0.9818	0.9823	0.9827	0.9839	0.9851	0.9863	0.9875	0.9886	0.9897
-181.65			0.9813	0.9818	0.9823	0.9828	0.9833	0.9845	0.9857	0.9868	0.9880	0.9891	0.9903
1.550			1.3679	1.3686	1.3692	1.3699	1.3706	1.3723	1.3739	1.3756	1.3772	1.3788	1.3804
91.6			0.9803	0.9808	0.9813	0.9818	0.9823	0.9835	0.9847	0.9859	0.9870	0.9882	0.9893
-181.55			0.9809	0.9814	0.9818	0.9823	0.9828	0.9840	0.9852	0.9864	0.9875	0.9887	0.9898
1.565			1.3672	1.3679	1.3686	1.3693	1.3700	1.3716	1.3733	1.3749	1.3766	1.3782	1.3798
91.7			0.9799	0.9804	0.9809	0.9813	0.9818	0.9830	0.9842	0.9854	0.9866	0.9877	0.9889
-181.45			0.9804	0.9809	0.9814	0.9819	0.9824	0.9836	0.9848	0.9859	0.9871	0.9883	0.9894
1.580			1.3666	1.3673	1.3680	1.3687	1.3693	1.3710	1.3727	1.3743	1.3760	1.3776	1.3792
91.8			0.9794	0.9799	0.9804	0.9809	0.9814	0.9826	0.9838	0.9850	0.9861	0.9873	0.9884
-181.35			0.9799	0.9804	0.9809	0.9814	0.9819	0.9831	0.9843	0.9855	0.9867	0.9878	0.9890
1.595			1.3660	1.3667	1.3673	1.3680	1.3687	1.3704	1.3721	1.3737	1.3753	1.3769	1.3785
91.9			0.9790	0.9794	0.9799	0.9804	0.9809	0.9821	0.9833	0.9845	0.9857	0.9868	0.9880
-181.25			0.9795	0.9800	0.9805	0.9810	0.9814	0.9827	0.9839	0.9850	0.9862	0.9874	0.9885
1.610			1.3653	1.3660	1.3667	1.3674	1.3681	1.3698	1.3714	1.3731	1.3747	1.3763	1.3779
92.0			0.9785	0.9790	0.9795	0.9800	0.9805	0.9817	0.9829	0.9841	0.9852	0.9864	0.9876
-181.15			0.9790	0.9795	0.9800	0.9805	0.9810	0.9822	0.9834	0.9846	0.9858	0.9869	0.9881
1.625			1.3647	1.3654	1.3661	1.3667	1.3674	1.3691	1.3708	1.3725	1.3741	1.3757	1.3773
92.1			0.9780	0.9785	0.9790	0.9795	0.9800	0.9812	0.9824	0.9836	0.9848	0.9860	0.9871
-181.05			0.9786	0.9791	0.9796	0.9800	0.9805	0.9818	0.9830	0.9841	0.9853	0.9865	0.9876
1.641			1.3640	1.3647	1.3654	1.3661	1.3668	1.3685	1.3702	1.3718	1.3735	1.3751	1.3767
92.2			0.9776	0.9781	0.9786	0.9791	0.9795	0.9808	0.9820	0.9832	0.9843	0.9855	0.9867
-180.95			0.9781	0.9786	0.9791	0.9796	0.9801	0.9813	0.9825	0.9837	0.9849	0.9860	0.9872
1.656			1.3634	1.3641	1.3648	1.3655	1.3662	1.3679	1.3695	1.3712	1.3729	1.3745	1.3761
92.3			0.9771	0.9776	0.9781	0.9786	0.9791	0.9803	0.9815	0.9827	0.9839	0.9851	0.9862
-180.85			0.9776	0.9781	0.9786	0.9791	0.9796	0.9808	0.9821	0.9833	0.9844	0.9856	0.9868
1.672			1.3627	1.3634	1.3641	1.3648	1.3655	1.3672	1.3689	1.3706	1.3722	1.3739	1.3755
92.4			0.9766	0.9771	0.9776	0.9781	0.9786	0.9798	0.9811	0.9823	0.9835	0.9846	0.9858
-180.75			0.9772	0.9777	0.9782	0.9787	0.9792	0.9804	0.9816	0.9828	0.9840	0.9852	0.9863
1.688			1.3621	1.3628	1.3635	1.3642	1.3649	1.3666	1.3683	1.3700	1.3716	1.3732	1.3749
92.5			0.9762	0.9767	0.9772	0.9777	0.9782	0.9794	0.9806	0.9818	0.9830	0.9842	0.9854
-180.65			0.9767	0.9772	0.9777	0.9782	0.9787	0.9799	0.9812	0.9824	0.9835	0.9847	0.9859
1.704			1.3615	1.3622	1.3629	1.3636	1.3642	1.3660	1.3677	1.3693	1.3710	1.3726	1.3742
92.6			0.9757	0.9762	0.9767	0.9772	0.9777	0.9790	0.9802	0.9814	0.9826	0.9837	0.9849
-180.55			0.9762	0.9767	0.9773	0.9778	0.9782	0.9795	0.9807	0.9819	0.9831	0.9843	0.9854
1.720			1.3608	1.3615	1.3622	1.3629	1.3636	1.3653	1.3670	1.3687	1.3704	1.3720	1.3736
92.7			0.9753	0.9758	0.9763	0.9768	0.9773	0.9785	0.9797	0.9809	0.9821	0.9833	0.9845
-180.45			0.9758	0.9763	0.9768	0.9773	0.9778	0.9790	0.9802	0.9815	0.9826	0.9838	0.9850
1.736			1.3602	1.3609	1.3616	1.3623	1.3630	1.3647	1.3664	1.3681	1.3697	1.3714	1.3730
92.8			0.9748	0.9753	0.9758	0.9763	0.9768	0.9780	0.9793	0.9805	0.9817	0.9829	0.9840
-180.35			0.9753	0.9758	0.9763	0.9768	0.9773	0.9786	0.9798	0.9810	0.9822	0.9834	0.9846
1.752			1.3595	1.3602	1.3609	1.3616	1.3623	1.3640	1.3658	1.3674	1.3691	1.3708	1.3724
92.9			0.9743	0.9748	0.9753	0.9758	0.9763	0.9776	0.9788	0.9800	0.9812	0.9824	0.9836
-180.25			0.9749	0.9754	0.9759	0.9764	0.9769	0.9781	0.9793	0.9806	0.9818	0.9829	0.9841
1.768			1.3589	1.3596	1.3603	1.3610	1.3617	1.3634	1.3651	1.3668	1.3685	1.3701	1.3718

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.29E	20.394	25.493	30.591	35.690	40.789
93.0			0.9739	0.9744	0.9749	0.9754	0.9759	0.9771	0.9784	0.9796	0.9808	0.9820	0.9831
-180.15			0.9744	0.9749	0.9754	0.9759	0.9764	0.9777	0.9789	0.9801	0.9813	0.9825	0.9837
1.785			1.3582	1.3589	1.3596	1.3603	1.3E10	1.3628	1.3645	1.3662	1.3679	1.3E95	1.3712
93.1			0.9734	0.9739	0.9744	0.9749	0.9754	0.9767	0.9779	0.9791	0.9803	0.9815	0.9827
-180.05			0.9739	0.9744	0.9749	0.9754	0.9759	0.9772	0.9784	0.9796	0.9809	0.9820	0.9832
1.801			1.3576	1.3583	1.3590	1.3597	1.3604	1.3621	1.3639	1.3656	1.3672	1.3689	1.3705
93.2			0.9729	0.9734	0.9739	0.9745	0.9750	0.9762	0.9774	0.9787	0.9799	0.9811	0.9823
-179.95			0.9735	0.9740	0.9745	0.9750	0.9755	0.9767	0.9780	0.9792	0.9804	0.981E	0.9828
1.818			1.3569	1.3576	1.3583	1.3591	1.3598	1.3615	1.3632	1.3649	1.3666	1.3683	1.3699
93.3			0.9725	0.9730	0.9735	0.9740	0.9745	0.9758	0.9770	0.9782	0.9794	0.9806	0.9818
-179.85			0.9730	0.9735	0.9740	0.9745	0.9750	0.9763	0.9775	0.9787	0.9800	0.9812	0.9823
1.835			1.3563	1.3570	1.3577	1.3584	1.3591	1.3609	1.3626	1.3643	1.3660	1.3677	1.3693
93.4			0.9720	0.9725	0.9730	0.9735	0.9740	0.9753	0.9765	0.9778	0.9790	0.9802	0.9814
-179.75			0.9725	0.9730	0.9735	0.9741	0.9746	0.9758	0.9771	0.9783	0.9795	0.9807	0.9819
1.852			1.3556	1.35E3	1.3570	1.3578	1.3585	1.3602	1.3619	1.3637	1.3654	1.3670	1.3687
93.5			0.9715	0.9720	0.9726	0.9731	0.9736	0.9748	0.9761	0.9773	0.9785	0.9797	0.9809
-179.65			0.9721	0.9726	0.9731	0.9736	0.9741	0.9754	0.9766	0.9778	0.9791	0.9803	0.9814
1.869			1.3550	1.3557	1.3564	1.3571	1.3578	1.3596	1.3613	1.3630	1.3647	1.3664	1.3681
93.6			0.9711	0.9716	0.9721	0.9726	0.9731	0.9744	0.9756	0.9769	0.9781	0.9793	0.9805
-179.55			0.9716	0.9721	0.9726	0.9731	0.9736	0.9748	0.9761	0.9774	0.9786	0.9798	0.9810
1.886			1.3543	1.3550	1.3558	1.3565	1.3572	1.3589	1.3607	1.3624	1.3641	1.3658	1.3674
93.7			0.9706	0.9711	0.9716	0.9721	0.9726	0.9739	0.9752	0.9764	0.9776	0.9788	0.9800
-179.45			0.9711	0.9716	0.9721	0.9727	0.9732	0.9744	0.9757	0.9769	0.9782	0.9794	0.9806
1.903			1.3537	1.3544	1.3551	1.3558	1.35E5	1.3583	1.3600	1.3618	1.3635	1.3E52	1.3668
93.8			0.9701	0.9706	0.9712	0.9717	0.9722	0.9735	0.9747	0.9759	0.9772	0.9784	0.9796
-179.35			0.9706	0.9712	0.9717	0.9722	0.9727	0.9740	0.9752	0.9765	0.9777	0.9789	0.9801
1.921			1.3530	1.3537	1.3545	1.3552	1.3559	1.3577	1.3594	1.3611	1.3628	1.3E45	1.3662
93.9			0.9697	0.9702	0.9707	0.9712	0.9717	0.9730	0.9742	0.9755	0.9767	0.9779	0.9791
-179.25			0.9702	0.9707	0.9712	0.9717	0.9722	0.9735	0.9748	0.9760	0.9772	0.9785	0.9797
1.938			1.3524	1.3531	1.3538	1.3545	1.3552	1.3570	1.3588	1.3605	1.3622	1.3639	1.3656
94.0			0.9692	0.9697	0.9702	0.9707	0.9713	0.9725	0.9738	0.9750	0.9763	0.9775	0.9787
-179.15			0.9697	0.9702	0.9707	0.9713	0.9718	0.9731	0.9743	0.9756	0.9768	0.9780	0.9792
1.956			1.3517	1.3524	1.3531	1.3539	1.3546	1.3564	1.3581	1.3599	1.3616	1.3E33	1.3650
94.1			0.9687	0.9692	0.9698	0.9703	0.9708	0.9721	0.9733	0.9746	0.9758	0.9770	0.9782
-179.05			0.9692	0.9698	0.9703	0.9708	0.9713	0.9726	0.9739	0.9751	0.9763	0.9776	0.9788
1.974			1.3510	1.3518	1.3525	1.3532	1.3539	1.3557	1.3575	1.3592	1.3609	1.3626	1.3643
94.2			0.9682	0.9688	0.9693	0.9698	0.9703	0.9716	0.9729	0.9741	0.9754	0.9766	0.9778
-178.95			0.9688	0.9693	0.9698	0.9703	0.9708	0.9721	0.9734	0.9746	0.9759	0.9771	0.9783
1.992			1.3504	1.3511	1.3518	1.3526	1.3533	1.3551	1.35E8	1.358E	1.3603	1.3E20	1.3637
94.3				0.9683	0.9688	0.9693	0.9699	0.9711	0.9724	0.9737	0.9749	0.5761	0.9773
-178.85				0.9688	0.9693	0.9699	0.9704	0.9717	0.9729	0.9742	0.9754	0.9767	0.9779
2.010				1.3505	1.3512	1.3519	1.3526	1.3544	1.3562	1.3579	1.3597	1.3E14	1.3631
94.4				0.9678	0.9683	0.9689	0.9694	0.9707	0.9720	0.9732	0.9745	0.9757	0.9769
-178.75				0.9683	0.9689	0.9694	0.9699	0.9712	0.9725	0.9737	0.9750	0.9762	0.9774
2.028				1.3498	1.3505	1.3513	1.3520	1.3538	1.355E	1.3573	1.3590	1.3E08	1.3625
94.5				0.9674	0.9679	0.9684	0.9689	0.9702	0.9715	0.9728	0.9740	0.9752	0.9764
-178.65				0.9679	0.9684	0.9689	0.9694	0.9707	0.9720	0.9733	0.9745	0.9758	0.9770
2.046				1.3491	1.3499	1.3506	1.3513	1.3531	1.3549	1.3567	1.3584	1.3601	1.3618
94.6				0.9669	0.9674	0.9679	0.9685	0.9698	0.9710	0.9723	0.9735	0.9748	0.9760
-178.55				0.9674	0.9679	0.9685	0.9690	0.9703	0.9716	0.9728	0.9741	0.9753	0.9765
2.0E4				1.3485	1.3492	1.3500	1.3507	1.3525	1.3543	1.3560	1.3578	1.3595	1.3612
94.7				0.9664	0.9669	0.9675	0.9680	0.9693	0.9706	0.9718	0.9731	0.9743	0.9755
-178.45				0.9669	0.9675	0.9680	0.9685	0.9698	0.9711	0.9724	0.973E	0.5749	0.9761
2.083				1.3478	1.3486	1.3493	1.3500	1.3518	1.3536	1.3554	1.3571	1.3589	1.360E
94.8				0.9659	0.9665	0.9670	0.9675	0.9688	0.9701	0.9714	0.9726	0.9739	0.9751
-178.35				0.9665	0.9670	0.9675	0.9680	0.9693	0.9706	0.9719	0.9732	0.9744	0.9756
2.101				1.3472	1.3479	1.3486	1.3494	1.3512	1.3530	1.3548	1.3565	1.3582	1.3599
94.9				0.9655	0.9660	0.9665	0.9671	0.9684	0.9696	0.9709	0.9722	0.9734	0.9746
-178.25				0.9660	0.9665	0.9670	0.9676	0.9689	0.9702	0.9714	0.9727	0.9739	0.9752
2.120				1.3465	1.3473	1.3480	1.3487	1.3505	1.3523	1.3541	1.3559	1.357E	1.3593

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
95.0				0.9650	0.9655	0.9661	0.9666	0.9679	0.9692	0.9705	0.9717	0.9730	0.9742
-178.15				0.9655	0.9660	0.9666	0.9671	0.9684	0.9697	0.9710	0.9722	0.9735	0.9747
2.139				1.3459	1.3466	1.3473	1.3481	1.3499	1.3517	1.3535	1.3552	1.3570	1.3587
95.1				0.9645	0.9651	0.9656	0.9661	0.9674	0.9687	0.9700	0.9713	0.9725	0.9737
-178.05				0.9650	0.9656	0.9661	0.9666	0.9679	0.9692	0.9705	0.9718	0.9730	0.9743
2.158				1.3452	1.3459	1.3467	1.3474	1.3492	1.3510	1.3528	1.3546	1.3563	1.3581
95.2				0.9640	0.9646	0.9651	0.9656	0.9670	0.9683	0.9695	0.9708	0.9721	0.9733
-177.95				0.9646	0.9651	0.9656	0.9662	0.9675	0.9688	0.9701	0.9713	0.9726	0.9738
2.177				1.3445	1.3453	1.3460	1.3468	1.3486	1.3504	1.3522	1.3540	1.3557	1.3574
95.3				0.9636	0.9641	0.9646	0.9652	0.9665	0.9678	0.9691	0.9703	0.9716	0.9728
-177.85				0.9641	0.9646	0.9652	0.9657	0.9670	0.9683	0.9696	0.9709	0.9721	0.9734
2.196				1.3439	1.3446	1.3454	1.3461	1.3479	1.3498	1.3515	1.3533	1.3551	1.3568
95.4				0.9631	0.9636	0.9642	0.9647	0.9660	0.9673	0.9686	0.9699	0.9711	0.9724
-177.75				0.9636	0.9642	0.9647	0.9652	0.9665	0.9678	0.9691	0.9704	0.9717	0.9729
2.216				1.3432	1.3440	1.3447	1.3454	1.3473	1.3491	1.3509	1.3527	1.3544	1.3562
95.5				0.9626	0.9632	0.9637	0.9642	0.9656	0.9668	0.9682	0.9694	0.9707	0.9719
-177.65				0.9631	0.9637	0.9642	0.9648	0.9661	0.9674	0.9687	0.9700	0.9712	0.9725
2.235				1.3425	1.3433	1.3440	1.3440	1.3466	1.3485	1.3503	1.3520	1.3538	1.3555
95.6				0.9621	0.9627	0.9632	0.9638	0.9651	0.9664	0.9677	0.9690	0.9702	0.9715
-177.55				0.9627	0.9632	0.9637	0.9643	0.9656	0.9669	0.9682	0.9695	0.9708	0.9720
2.255				1.3419	1.3426	1.3434	1.3441	1.3460	1.3478	1.3496	1.3514	1.3532	1.3549
95.7				0.9617	0.9622	0.9627	0.9633	0.9646	0.9659	0.9672	0.9685	0.9698	0.9710
-177.45				0.9622	0.9627	0.9633	0.9638	0.9651	0.9665	0.9678	0.9690	0.9703	0.9716
2.275				1.3412	1.3420	1.3427	1.3435	1.3453	1.3472	1.3490	1.3508	1.3525	1.3543
95.8				0.9612	0.9617	0.9623	0.9628	0.9641	0.9655	0.9668	0.9681	0.9693	0.9706
-177.35				0.9617	0.9623	0.9628	0.9633	0.9647	0.9660	0.9673	0.9686	0.9698	0.9711
2.294				1.3405	1.3413	1.3421	1.3428	1.3447	1.3465	1.3483	1.3501	1.3519	1.3536
95.9				0.9607	0.9613	0.9618	0.9623	0.9637	0.9650	0.9663	0.9676	0.9689	0.9701
-177.25				0.9612	0.9618	0.9623	0.9629	0.9642	0.9655	0.9668	0.9681	0.9694	0.9706
2.314				1.3399	1.3406	1.3414	1.3422	1.3440	1.3459	1.3477	1.3495	1.3513	1.3530
96.0				0.9602	0.9608	0.9613	0.9619	0.9632	0.9645	0.9658	0.9671	0.9684	0.9697
-177.15				0.9608	0.9613	0.9618	0.9624	0.9637	0.9651	0.9664	0.9677	0.9689	0.9702
2.335				1.3392	1.3400	1.3407	1.3415	1.3434	1.3452	1.3470	1.3488	1.3506	1.3524
96.1				0.9598	0.9603	0.9608	0.9614	0.9627	0.9641	0.9654	0.9667	0.9680	0.9692
-177.05				0.9603	0.9608	0.9614	0.9619	0.9633	0.9646	0.9659	0.9672	0.9685	0.9697
2.355				1.3385	1.3393	1.3401	1.3408	1.3427	1.3446	1.3464	1.3482	1.3500	1.3517
96.2				0.9593	0.9598	0.9604	0.9609	0.9623	0.9636	0.9649	0.9662	0.9675	0.9688
-176.95				0.9598	0.9603	0.9609	0.9614	0.9628	0.9641	0.9654	0.9667	0.9680	0.9693
2.375				1.3379	1.3386	1.3394	1.3402	1.3420	1.3439	1.3457	1.3476	1.3493	1.3511
96.3				0.9588	0.9593	0.9599	0.9604	0.9618	0.9631	0.9644	0.9657	0.9670	0.9683
-176.85				0.9593	0.9599	0.9604	0.9610	0.9623	0.9636	0.9650	0.9663	0.9676	0.9688
2.396				1.3372	1.3380	1.3387	1.3395	1.3414	1.3433	1.3451	1.3469	1.3487	1.3505
96.4				0.9583	0.9589	0.9594	0.9600	0.9613	0.9627	0.9640	0.9653	0.9666	0.9679
-176.75				0.9588	0.9594	0.9599	0.9605	0.9618	0.9632	0.9645	0.9658	0.9671	0.9684
2.416				1.3365	1.3373	1.3381	1.3388	1.3407	1.3426	1.3444	1.3463	1.3481	1.3498
96.5				0.9578	0.9584	0.9589	0.9595	0.9608	0.9622	0.9635	0.9648	0.9661	0.9674
-176.65				0.9584	0.9589	0.9595	0.9600	0.9614	0.9627	0.9640	0.9653	0.9666	0.9679
2.437				1.3359	1.3366	1.3374	1.3382	1.3401	1.3419	1.3438	1.3456	1.3474	1.3492
96.6				0.9574	0.9579	0.9585	0.9590	0.9604	0.9617	0.9630	0.9644	0.9657	0.9669
-176.55				0.9579	0.9584	0.9590	0.9595	0.9609	0.9622	0.9636	0.9649	0.9662	0.9675
2.458				1.3352	1.3360	1.3367	1.3375	1.3394	1.3413	1.3431	1.3450	1.3468	1.3486
96.7				0.9569	0.9574	0.9580	0.9585	0.9599	0.9613	0.9626	0.9639	0.9652	0.9665
-176.45				0.9574	0.9579	0.9585	0.9591	0.9604	0.9618	0.9631	0.9644	0.9657	0.9670
2.479				1.3345	1.3353	1.3361	1.3368	1.3388	1.3406	1.3425	1.3443	1.3461	1.3479
96.8				0.9564	0.9570	0.9575	0.9581	0.9594	0.9608	0.9621	0.9634	0.9647	0.9660
-176.35				0.9569	0.9575	0.9580	0.9586	0.9599	0.9613	0.9626	0.9640	0.9653	0.9665
2.500				1.3339	1.3346	1.3354	1.3362	1.3381	1.3400	1.3418	1.3437	1.3455	1.3473
96.9				0.9559	0.9565	0.9570	0.9576	0.9590	0.9603	0.9616	0.9630	0.9643	0.9656
-176.25				0.9564	0.9570	0.9575	0.9581	0.9595	0.9608	0.9622	0.9635	0.9648	0.9661
2.522				1.3332	1.3340	1.3347	1.3355	1.3374	1.3393	1.3412	1.3430	1.3449	1.3467

TABLE ENTRIES

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
97.0				0.9554	0.9560	0.9565	0.9571	0.9585	0.9598	0.9612	0.9625	0.9638	0.9651
-176.15				0.9559	0.9565	0.9571	0.9576	0.9590	0.9604	0.9617	0.9630	0.9643	0.9656
2.543				1.3325	1.3333	1.3341	1.3348	1.3368	1.3387	1.3405	1.3424	1.3442	1.3460
97.1				0.9549	0.9555	0.9561	0.9566	0.9580	0.9594	0.9607	0.9620	0.9634	0.9646
-176.05				0.9555	0.9560	0.9566	0.9571	0.9585	0.9599	0.9612	0.9626	0.9639	0.9652
2.565				1.3318	1.3326	1.3334	1.3342	1.3361	1.3380	1.3399	1.3417	1.3436	1.3454
97.2				0.9545	0.9550	0.9556	0.9561	0.9575	0.9589	0.9602	0.9616	0.9629	0.9642
-175.95				0.9550	0.9555	0.9561	0.9567	0.9580	0.9594	0.9608	0.9621	0.9634	0.9647
2.586				1.3312	1.3319	1.3327	1.3335	1.3354	1.3373	1.3392	1.3411	1.3429	1.3447
97.3				0.9540	0.9545	0.9551	0.9557	0.9571	0.9584	0.9598	0.9611	0.9624	0.9637
-175.85				0.9545	0.9551	0.9556	0.9562	0.9576	0.9589	0.9603	0.9616	0.9629	0.9643
2.608				1.3305	1.3313	1.3321	1.3328	1.3348	1.3367	1.3386	1.3404	1.3423	1.3441
97.4				0.9535	0.9541	0.9546	0.9552	0.9566	0.9579	0.9593	0.9606	0.9620	0.9633
-175.75				0.9540	0.9546	0.9551	0.9557	0.9571	0.9585	0.9598	0.9612	0.9625	0.9638
2.630				1.3298	1.3306	1.3314	1.3322	1.3341	1.3360	1.3378	1.3398	1.3416	1.3435
97.5				0.9530	0.9536	0.9541	0.9547	0.9561	0.9575	0.9588	0.9602	0.9615	0.9628
-175.65				0.9535	0.9541	0.9547	0.9552	0.9566	0.9580	0.9594	0.9607	0.9620	0.9633
2.653				1.3291	1.3299	1.3307	1.3315	1.3334	1.3354	1.3373	1.3391	1.3410	1.3428
97.6				0.9525	0.9531	0.9537	0.9542	0.9556	0.9570	0.9584	0.9597	0.9610	0.9624
-175.55				0.9530	0.9536	0.9542	0.9547	0.9561	0.9575	0.9589	0.9602	0.9616	0.9629
2.675				1.3285	1.3293	1.3300	1.3308	1.3328	1.3347	1.3366	1.3385	1.3403	1.3422
97.7				0.9520	0.9526	0.9532	0.9537	0.9551	0.9565	0.9579	0.9592	0.9606	0.9619
-175.45				0.9525	0.9531	0.9537	0.9543	0.9557	0.9570	0.9584	0.9598	0.9611	0.9624
2.697				1.3278	1.3286	1.3294	1.3302	1.3321	1.3340	1.3360	1.3378	1.3397	1.3415
97.8				0.9515	0.9521	0.9527	0.9533	0.9547	0.9561	0.9574	0.9588	0.9601	0.9614
-175.35				0.9521	0.9526	0.9532	0.9538	0.9552	0.9566	0.9579	0.9593	0.9606	0.9619
2.720				1.3271	1.3279	1.3287	1.3295	1.3314	1.3334	1.3353	1.3372	1.3390	1.3409
97.9				0.9511	0.9516	0.9522	0.9528	0.9542	0.9556	0.9570	0.9583	0.9596	0.9610
-175.25				0.9516	0.9521	0.9527	0.9533	0.9547	0.9561	0.9575	0.9588	0.9602	0.9615
2.742				1.3264	1.3272	1.3280	1.3288	1.3308	1.3327	1.3346	1.3365	1.3384	1.3402
98.0				0.9506	0.9511	0.9517	0.9523	0.9537	0.9551	0.9565	0.9578	0.9592	0.9605
-175.15				0.9511	0.9517	0.9522	0.9528	0.9542	0.9556	0.9570	0.9584	0.9597	0.9610
2.765				1.3257	1.3265	1.3273	1.3281	1.3301	1.3321	1.3340	1.3359	1.3377	1.3396
98.1				0.9501	0.9507	0.9512	0.9518	0.9532	0.9546	0.9560	0.9574	0.9587	0.9600
-175.05				0.9506	0.9512	0.9518	0.9523	0.9537	0.9551	0.9565	0.9579	0.9592	0.9606
2.788				1.3251	1.3259	1.3267	1.3275	1.3294	1.3314	1.3333	1.3352	1.3371	1.3389
98.2				0.9496	0.9502	0.9508	0.9513	0.9527	0.9541	0.9555	0.9569	0.9582	0.9596
-174.95				0.9501	0.9507	0.9513	0.9518	0.9533	0.9547	0.9560	0.9574	0.9588	0.9601
2.811				1.3244	1.3252	1.3260	1.3268	1.3288	1.3307	1.3327	1.3346	1.3364	1.3383
98.3				0.9491	0.9497	0.9503	0.9508	0.9523	0.9537	0.9551	0.9564	0.9578	0.9591
-174.85				0.9496	0.9502	0.9508	0.9514	0.9528	0.9542	0.9556	0.9569	0.9583	0.9596
2.835				1.3237	1.3245	1.3253	1.3261	1.3281	1.3301	1.3320	1.3339	1.3358	1.3377
98.4				0.9486	0.9492	0.9498	0.9504	0.9518	0.9532	0.9546	0.9560	0.9573	0.9587
-174.75				0.9491	0.9497	0.9503	0.9509	0.9523	0.9537	0.9551	0.9565	0.9578	0.9592
2.858				1.3230	1.3238	1.3246	1.3254	1.3274	1.3294	1.3313	1.3333	1.3351	1.3370
98.5				0.9481	0.9487	0.9493	0.9499	0.9513	0.9527	0.9541	0.9555	0.9568	0.9582
-174.65				0.9486	0.9492	0.9498	0.9504	0.9518	0.9532	0.9546	0.9560	0.9574	0.9587
2.882				1.3223	1.3231	1.3240	1.3248	1.3268	1.3287	1.3307	1.3326	1.3345	1.3364
98.6				0.9476	0.9482	0.9488	0.9494	0.9508	0.9522	0.9536	0.9550	0.9564	0.9577
-174.55				0.9481	0.9487	0.9493	0.9499	0.9513	0.9528	0.9542	0.9555	0.9569	0.9582
2.905				1.3216	1.3225	1.3233	1.3241	1.3261	1.3281	1.3300	1.3319	1.3338	1.3357
98.7				0.9471	0.9477	0.9483	0.9489	0.9503	0.9518	0.9532	0.9545	0.9559	0.9573
-174.45				0.9477	0.9482	0.9488	0.9494	0.9508	0.9523	0.9537	0.9551	0.9564	0.9578
2.929				1.3210	1.3218	1.3226	1.3234	1.3254	1.3274	1.3294	1.3313	1.3332	1.3351
98.8				0.9466	0.9472	0.9478	0.9484	0.9498	0.9513	0.9527	0.9541	0.9554	0.9568
-174.35				0.9472	0.9478	0.9483	0.9489	0.9504	0.9518	0.9532	0.9546	0.9560	0.9573
2.953				1.3203	1.3211	1.3219	1.3227	1.3247	1.3267	1.3287	1.3306	1.3325	1.3344
98.9				0.9462	0.9467	0.9473	0.9479	0.9494	0.9508	0.9522	0.9536	0.9550	0.9563
-174.25				0.9467	0.9473	0.9478	0.9484	0.9499	0.9513	0.9527	0.9541	0.9555	0.9568
2.977				1.3196	1.3204	1.3212	1.3220	1.3241	1.3261	1.3280	1.3300	1.3319	1.3338

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
99.0				0.9457	0.9463	0.9468	0.9474	0.9488	0.9503	0.9517	0.9531	0.9545	0.9559
-174.15				0.9462	0.9468	0.9474	0.9479	0.9494	0.9500	0.9522	0.9536	0.9550	0.9564
3.001				1.3189	1.3197	1.3205	1.3214	1.3234	1.3254	1.3274	1.3293	1.3312	1.3331
99.1				0.9452	0.9458	0.9464	0.9469	0.9484	0.9498	0.9513	0.9527	0.9540	0.9554
-174.05				0.9457	0.9463	0.9469	0.9475	0.9489	0.9504	0.9518	0.9532	0.9546	0.9559
3.026				1.3182	1.3190	1.3199	1.3207	1.3227	1.3247	1.3267	1.3286	1.3306	1.3325
99.2				0.9447	0.9453	0.9459	0.9465	0.9479	0.9494	0.9508	0.9522	0.9536	0.9549
-173.95				0.9452	0.9458	0.9464	0.9470	0.9484	0.9499	0.9513	0.9527	0.9541	0.9554
3.050				1.3175	1.3184	1.3192	1.3200	1.3220	1.3240	1.3260	1.3280	1.3299	1.3318
99.3				0.9442	0.9448	0.9454	0.9460	0.9474	0.9489	0.9503	0.9517	0.9531	0.9545
-173.85				0.9447	0.9453	0.9459	0.9465	0.9479	0.9494	0.9508	0.9522	0.9536	0.9550
3.075				1.3168	1.3177	1.3185	1.3193	1.3214	1.3234	1.3254	1.3273	1.3293	1.3312
99.4				0.9437	0.9443	0.9449	0.9455	0.9469	0.9484	0.9498	0.9512	0.9526	0.9540
-173.75				0.9442	0.9448	0.9454	0.9460	0.9475	0.9489	0.9503	0.9517	0.9531	0.9545
3.100				1.3161	1.3170	1.3178	1.3186	1.3207	1.3227	1.3247	1.3267	1.3286	1.3305
99.5				0.9432	0.9438	0.9444	0.9450	0.9465	0.9479	0.9493	0.9508	0.9522	0.9535
-173.65				0.9437	0.9443	0.9449	0.9455	0.9470	0.9484	0.9499	0.9513	0.9527	0.9540
3.125				1.3154	1.3163	1.3171	1.3180	1.3200	1.3220	1.3240	1.3260	1.3279	1.3299
99.6				0.9427	0.9433	0.9439	0.9445	0.9460	0.9474	0.9489	0.9503	0.9517	0.9531
-173.55				0.9432	0.9438	0.9444	0.9450	0.9465	0.9479	0.9494	0.9508	0.9522	0.9536
3.150				1.3148	1.3156	1.3164	1.3173	1.3193	1.3214	1.3234	1.3253	1.3273	1.3292
99.7				0.9422	0.9428	0.9434	0.9440	0.9455	0.9469	0.9484	0.9498	0.9512	0.9526
-173.45				0.9427	0.9433	0.9439	0.9445	0.9460	0.9475	0.9489	0.9503	0.9517	0.9531
3.175				1.3141	1.3149	1.3157	1.3166	1.3186	1.3207	1.3227	1.3247	1.3266	1.3286
99.8				0.9417	0.9423	0.9429	0.9435	0.9450	0.9465	0.9479	0.9493	0.9507	0.9521
-173.35				0.9422	0.9428	0.9434	0.9440	0.9455	0.9470	0.9484	0.9498	0.9513	0.9526
3.201				1.3134	1.3142	1.3151	1.3159	1.3180	1.3200	1.3220	1.3240	1.3260	1.3279
99.9				0.9412	0.9418	0.9424	0.9430	0.9445	0.9460	0.9474	0.9489	0.9503	0.9517
-173.25				0.9417	0.9423	0.9429	0.9435	0.9450	0.9465	0.9479	0.9494	0.9508	0.9522
3.227				1.3127	1.3135	1.3144	1.3152	1.3173	1.3193	1.3214	1.3233	1.3253	1.3273
100.0				0.9407	0.9413	0.9419	0.9425	0.9440	0.9455	0.9469	0.9484	0.9498	0.9512
-173.15				0.9412	0.9418	0.9424	0.9430	0.9445	0.9460	0.9475	0.9489	0.9503	0.9517
3.252				1.3120	1.3128	1.3137	1.3145	1.3166	1.3187	1.3207	1.3227	1.3247	1.3266
100.1				0.9402	0.9408	0.9414	0.9420	0.9435	0.9450	0.9465	0.9479	0.9493	0.9507
-173.05				0.9407	0.9413	0.9419	0.9425	0.9440	0.9455	0.9470	0.9484	0.9498	0.9512
3.278				1.3113	1.3121	1.3130	1.3138	1.3159	1.3180	1.3200	1.3220	1.3240	1.3259
100.2				0.9397	0.9403	0.9409	0.9415	0.9430	0.9445	0.9460	0.9474	0.9488	0.9502
-172.95				0.9402	0.9408	0.9414	0.9420	0.9436	0.9450	0.9465	0.9479	0.9494	0.9508
3.304				1.3106	1.3114	1.3123	1.3131	1.3152	1.3173	1.3193	1.3214	1.3233	1.3253
100.3				0.9392	0.9398	0.9404	0.9410	0.9426	0.9440	0.9455	0.9469	0.9484	0.9498
-172.85				0.9397	0.9403	0.9409	0.9416	0.9431	0.9445	0.9460	0.9475	0.9489	0.9503
3.330				1.3099	1.3108	1.3116	1.3125	1.3146	1.3166	1.3187	1.3207	1.3227	1.3246
100.4				0.9387	0.9393	0.9399	0.9406	0.9421	0.9436	0.9450	0.9465	0.9479	0.9493
-172.75				0.9392	0.9398	0.9404	0.9411	0.9426	0.9441	0.9455	0.9470	0.9484	0.9498
3.357				1.3092	1.3101	1.3109	1.3118	1.3139	1.3159	1.3180	1.3200	1.3220	1.3240
100.5				0.9382	0.9388	0.9394	0.9401	0.9416	0.9431	0.9445	0.9460	0.9474	0.9488
-172.65				0.9387	0.9393	0.9400	0.9406	0.9421	0.9436	0.9450	0.9465	0.9479	0.9493
3.383				1.3085	1.3094	1.3102	1.3111	1.3132	1.3153	1.3173	1.3193	1.3213	1.3233
100.6				0.9377	0.9383	0.9389	0.9396	0.9411	0.9426	0.9441	0.9455	0.9469	0.9484
-172.55				0.9382	0.9388	0.9395	0.9401	0.9416	0.9431	0.9446	0.9460	0.9475	0.9489
3.410				1.3078	1.3087	1.3095	1.3104	1.3125	1.3146	1.3166	1.3187	1.3207	1.3227
100.7				0.9372	0.9378	0.9384	0.9391	0.9406	0.9421	0.9436	0.9450	0.9465	0.9479
-172.45				0.9377	0.9383	0.9390	0.9396	0.9411	0.9426	0.9441	0.9455	0.9470	0.9484
3.437				1.3071	1.3080	1.3088	1.3097	1.3118	1.3139	1.3160	1.3180	1.3200	1.3220
100.8				0.9367	0.9373	0.9379	0.9386	0.9401	0.9416	0.9431	0.9445	0.9460	0.9474
-172.35				0.9372	0.9378	0.9385	0.9391	0.9406	0.9421	0.9436	0.9451	0.9465	0.9479
3.464				1.3064	1.3073	1.3081	1.3090	1.3111	1.3132	1.3153	1.3173	1.3194	1.3213
100.9				0.9362	0.9368	0.9375	0.9381	0.9396	0.9411	0.9426	0.9441	0.9455	0.9469
-172.25				0.9367	0.9373	0.9380	0.9386	0.9401	0.9416	0.9431	0.9446	0.9460	0.9475
3.491				1.3057	1.3066	1.3074	1.3083	1.3104	1.3125	1.3146	1.3167	1.3187	1.3207

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.008	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
101.0				0.9357	0.9363	0.9370	0.9376	0.9391	0.9406	0.9421	0.9436	0.9450	0.9465
-172.15				0.9362	0.9368	0.9375	0.9381	0.9396	0.9411	0.9426	0.9441	0.9455	0.9470
3.518				1.3050	1.3059	1.3067	1.3076	1.3098	1.3119	1.3139	1.3160	1.3180	1.3200
101.1				0.9352	0.9358	0.9365	0.9371	0.9386	0.9401	0.9416	0.9431	0.9446	0.9460
-172.05				0.9357	0.9363	0.9370	0.9376	0.9391	0.9406	0.9421	0.9436	0.9451	0.9465
3.546				1.3043	1.3052	1.3060	1.3069	1.3091	1.3112	1.3133	1.3153	1.3174	1.3194
101.2				0.9347	0.9353	0.9359	0.9366	0.9381	0.9396	0.9411	0.9426	0.9441	0.9455
-171.95				0.9352	0.9358	0.9365	0.9371	0.9386	0.9402	0.9417	0.9431	0.9446	0.9460
3.573				1.3036	1.3045	1.3053	1.3062	1.3084	1.3105	1.3126	1.3147	1.3167	1.3187
101.3				0.9342	0.9348	0.9354	0.9361	0.9376	0.9392	0.9407	0.9421	0.9436	0.9450
-171.85				0.9347	0.9353	0.9360	0.9366	0.9381	0.9397	0.9412	0.9426	0.9441	0.9456
3.601				1.3029	1.3038	1.3046	1.3055	1.3077	1.3098	1.3119	1.3140	1.3160	1.3180
101.4				0.9337	0.9343	0.9349	0.9356	0.9371	0.9387	0.9402	0.9417	0.9431	0.9446
-171.75				0.9342	0.9348	0.9355	0.9361	0.9376	0.9392	0.9407	0.9422	0.9436	0.9451
3.629				1.3022	1.3031	1.3039	1.3048	1.3070	1.3091	1.3112	1.3133	1.3154	1.3174
101.5				0.9332	0.9338	0.9344	0.9351	0.9366	0.9382	0.9397	0.9412	0.9426	0.9441
-171.65				0.9337	0.9343	0.9349	0.9356	0.9371	0.9387	0.9402	0.9417	0.9432	0.9446
3.657				1.3015	1.3024	1.3032	1.3041	1.3063	1.3084	1.3106	1.3126	1.3147	1.3167
101.6				0.9327	0.9333	0.9339	0.9346	0.9361	0.9377	0.9392	0.9407	0.9422	0.9436
-171.55				0.9332	0.9338	0.9344	0.9351	0.9366	0.9382	0.9397	0.9412	0.9427	0.9441
3.685				1.3008	1.3017	1.3025	1.3034	1.3056	1.3078	1.3099	1.3120	1.3140	1.3160
101.7				0.9322	0.9328	0.9334	0.9341	0.9356	0.9372	0.9387	0.9402	0.9417	0.9431
-171.45				0.9327	0.9333	0.9339	0.9346	0.9361	0.9377	0.9392	0.9407	0.9422	0.9437
3.714				1.3001	1.3010	1.3018	1.3027	1.3049	1.3071	1.3092	1.3113	1.3133	1.3154
101.8				0.9316	0.9323	0.9329	0.9336	0.9351	0.9367	0.9382	0.9397	0.9412	0.9427
-171.35				0.9322	0.9328	0.9334	0.9341	0.9356	0.9372	0.9387	0.9402	0.9417	0.9432
3.742				1.2994	1.3002	1.3011	1.3020	1.3042	1.3064	1.3085	1.3106	1.3127	1.3147
101.9				0.9311	0.9318	0.9324	0.9331	0.9346	0.9362	0.9377	0.9392	0.9407	0.9422
-171.25				0.9316	0.9323	0.9329	0.9336	0.9351	0.9367	0.9382	0.9397	0.9412	0.9427
3.771				1.2986	1.2995	1.3004	1.3013	1.3035	1.3057	1.3078	1.3099	1.3120	1.3140
102.0				0.9306	0.9313	0.9319	0.9326	0.9341	0.9357	0.9372	0.9387	0.9402	0.9417
-171.15				0.9311	0.9318	0.9324	0.9331	0.9347	0.9362	0.9377	0.9393	0.9407	0.9422
3.800				1.2979	1.2988	1.2997	1.3006	1.3028	1.3050	1.3071	1.3093	1.3113	1.3134
102.1				0.9301	0.9308	0.9314	0.9321	0.9336	0.9352	0.9367	0.9383	0.9398	0.9412
-171.05				0.9306	0.9313	0.9319	0.9326	0.9342	0.9357	0.9373	0.9388	0.9403	0.9417
3.829				1.2972	1.2981	1.2988	1.2999	1.3021	1.3043	1.3065	1.3086	1.3107	1.3127
102.2				0.9296	0.9303	0.9309	0.9316	0.9331	0.9347	0.9363	0.9378	0.9393	0.9408
-170.95				0.9301	0.9308	0.9314	0.9321	0.9337	0.9352	0.9368	0.9383	0.9398	0.9413
3.858				1.2965	1.2974	1.2983	1.2992	1.3014	1.3036	1.3058	1.3079	1.3100	1.3120
102.3				0.9291	0.9298	0.9304	0.9311	0.9326	0.9342	0.9358	0.9373	0.9388	0.9403
-170.85				0.9296	0.9303	0.9309	0.9316	0.9332	0.9347	0.9363	0.9378	0.9393	0.9408
3.887				1.2958	1.2967	1.2976	1.2985	1.3007	1.3029	1.3051	1.3072	1.3093	1.3114
102.4				0.9286	0.9292	0.9299	0.9305	0.9321	0.9337	0.9353	0.9368	0.9383	0.9398
-170.75				0.9291	0.9297	0.9304	0.9310	0.9326	0.9342	0.9358	0.9373	0.9388	0.9403
3.917				1.2951	1.2960	1.2969	1.2978	1.3000	1.3022	1.3044	1.3065	1.3086	1.3107
102.5				0.9281	0.9287	0.9294	0.9300	0.9316	0.9332	0.9348	0.9363	0.9378	0.9393
-170.65				0.9286	0.9292	0.9299	0.9305	0.9321	0.9337	0.9353	0.9368	0.9383	0.9398
3.946				1.2944	1.2953	1.2962	1.2971	1.2993	1.3015	1.3037	1.3059	1.3080	1.3100
102.6				0.9276	0.9282	0.9289	0.9295	0.9311	0.9327	0.9343	0.9358	0.9373	0.9388
-170.55				0.9281	0.9287	0.9294	0.9300	0.9316	0.9332	0.9348	0.9363	0.9378	0.9393
3.976				1.2937	1.2946	1.2955	1.2964	1.2986	1.3009	1.3030	1.3052	1.3073	1.3094
102.7					0.9277	0.9284	0.9290	0.9306	0.9322	0.9338	0.9353	0.9369	0.9384
-170.45					0.9282	0.9289	0.9295	0.9311	0.9327	0.9343	0.9358	0.9374	0.9389
4.006					1.2939	1.2948	1.2957	1.2979	1.3002	1.3023	1.3045	1.3066	1.3087
102.8					0.9272	0.9279	0.9285	0.9301	0.9317	0.9333	0.9348	0.9364	0.9379
-170.35					0.9277	0.9284	0.9290	0.9306	0.9322	0.9338	0.9354	0.9369	0.9384
4.036					1.2932	1.2941	1.2950	1.2972	1.2995	1.3017	1.3038	1.3059	1.3080
102.9					0.9267	0.9274	0.9280	0.9296	0.9312	0.9328	0.9344	0.9359	0.9374
-170.25					0.9272	0.9279	0.9285	0.9301	0.9317	0.9333	0.9349	0.9364	0.9379
4.067					1.2924	1.2934	1.2943	1.2965	1.2988	1.3010	1.3031	1.3053	1.3074

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/OM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.110	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
103.0					0.9262	0.9268	0.9275	0.9291	0.9307	0.9323	0.9339	0.9354	0.9369
-170.15					0.9267	0.9273	0.9280	0.9296	0.9312	0.9328	0.9344	0.9359	0.9374
4.097					1.2917	1.2926	1.2936	1.2958	1.2981	1.3003	1.3024	1.3046	1.3067
103.1					0.9257	0.9263	0.9270	0.9286	0.9302	0.9318	0.9334	0.9349	0.9364
-170.05					0.9262	0.9268	0.9275	0.9291	0.9307	0.9323	0.9339	0.9354	0.9369
4.128					1.2910	1.2919	1.2929	1.2951	1.2974	1.2996	1.3018	1.3039	1.3060
103.2					0.9252	0.9258	0.9265	0.9281	0.9297	0.9313	0.9329	0.9344	0.9359
-169.95					0.9257	0.9263	0.9270	0.9286	0.9302	0.9318	0.9334	0.9349	0.9365
4.156					1.2903	1.2912	1.2921	1.2944	1.2967	1.2989	1.3011	1.3032	1.3053
103.3					0.9246	0.9253	0.9260	0.9276	0.9292	0.9308	0.9324	0.9339	0.9355
-169.85					0.9251	0.9258	0.9265	0.9281	0.9297	0.9313	0.9329	0.9344	0.9360
4.190					1.2896	1.2905	1.2914	1.2937	1.2960	1.2982	1.3004	1.3025	1.3047
103.4					0.9241	0.9248	0.9255	0.9271	0.9287	0.9303	0.9319	0.9335	0.9350
-169.75					0.9246	0.9253	0.9260	0.9276	0.9292	0.9308	0.9324	0.9340	0.9355
4.221					1.2889	1.2899	1.2907	1.2930	1.2953	1.2975	1.2997	1.3019	1.3040
103.5					0.9236	0.9243	0.9250	0.9266	0.9282	0.9298	0.9314	0.9330	0.9345
-169.65					0.9241	0.9248	0.9255	0.9271	0.9287	0.9303	0.9319	0.9335	0.9350
4.252					1.2881	1.2891	1.2900	1.2923	1.2946	1.2968	1.2990	1.3012	1.3033
103.6					0.9231	0.9238	0.9244	0.9261	0.9277	0.9293	0.9309	0.9325	0.9340
-169.55					0.9236	0.9243	0.9249	0.9266	0.9282	0.9298	0.9314	0.9330	0.9345
4.284					1.2874	1.2884	1.2893	1.2916	1.2939	1.2961	1.2983	1.3005	1.3026
103.7					0.9226	0.9233	0.9239	0.9256	0.9272	0.9288	0.9304	0.9320	0.9335
-169.45					0.9231	0.9238	0.9244	0.9261	0.9277	0.9293	0.9309	0.9325	0.9340
4.316					1.2867	1.2876	1.2886	1.2909	1.2932	1.2954	1.2976	1.2998	1.3020
103.8					0.9221	0.9227	0.9234	0.9251	0.9267	0.9283	0.9299	0.9315	0.9330
-169.35					0.9226	0.9232	0.9239	0.9256	0.9272	0.9288	0.9304	0.9320	0.9335
4.347					1.2860	1.2869	1.2879	1.2902	1.2925	1.2947	1.2970	1.2991	1.3013
103.9					0.9215	0.9222	0.9229	0.9246	0.9262	0.9278	0.9294	0.9310	0.9326
-169.25					0.9220	0.9227	0.9234	0.9251	0.9267	0.9283	0.9299	0.9315	0.9331
4.379					1.2853	1.2862	1.2871	1.2895	1.2918	1.2940	1.2963	1.2985	1.3006
104.0					0.9210	0.9217	0.9224	0.9241	0.9257	0.9273	0.9289	0.9305	0.9321
-169.15					0.9215	0.9222	0.9229	0.9246	0.9262	0.9278	0.9294	0.9310	0.9326
4.412					1.2845	1.2855	1.2864	1.2888	1.2911	1.2933	1.2956	1.2978	1.2999
104.1					0.9205	0.9212	0.9219	0.9236	0.9252	0.9268	0.9284	0.9300	0.9316
-169.05					0.9210	0.9217	0.9224	0.9241	0.9257	0.9273	0.9289	0.9305	0.9321
4.444					1.2838	1.2840	1.2857	1.2881	1.2904	1.2926	1.2949	1.2971	1.2993
104.2					0.9200	0.9207	0.9214	0.9230	0.9247	0.9263	0.9280	0.9295	0.9311
-168.95					0.9205	0.9212	0.9219	0.9236	0.9252	0.9268	0.9285	0.9300	0.9316
4.477					1.2831	1.2840	1.2850	1.2874	1.2897	1.2919	1.2942	1.2964	1.2986
104.3					0.9195	0.9202	0.9208	0.9225	0.9242	0.9258	0.9275	0.9290	0.9306
-168.85					0.9200	0.9207	0.9213	0.9230	0.9247	0.9263	0.9280	0.9295	0.9311
4.509					1.2824	1.2833	1.2843	1.2866	1.2888	1.2912	1.2935	1.2957	1.2979
104.4					0.9189	0.9196	0.9203	0.9220	0.9237	0.9253	0.9270	0.9286	0.9301
-168.75					0.9194	0.9201	0.9208	0.9225	0.9242	0.9258	0.9275	0.9291	0.9306
4.542					1.2816	1.2826	1.2836	1.2859	1.2883	1.2905	1.2928	1.2950	1.2972
104.5					0.9184	0.9191	0.9198	0.9215	0.9232	0.9248	0.9265	0.9281	0.9296
-168.65					0.9189	0.9196	0.9203	0.9220	0.9237	0.9253	0.9270	0.9286	0.9301
4.575					1.2809	1.2819	1.2828	1.2852	1.2875	1.2898	1.2921	1.2943	1.2965
104.6					0.9179	0.9186	0.9193	0.9210	0.9227	0.9243	0.9260	0.9276	0.9291
-168.55					0.9184	0.9191	0.9198	0.9215	0.9232	0.9248	0.9265	0.9281	0.9296
4.609					1.2802	1.2811	1.2821	1.2845	1.2868	1.2891	1.2914	1.2937	1.2959
104.7					0.9174	0.9181	0.9188	0.9205	0.9222	0.9238	0.9255	0.9271	0.9287
-168.45					0.9179	0.9186	0.9193	0.9210	0.9227	0.9243	0.9260	0.9276	0.9292
4.642					1.2794	1.2804	1.2814	1.2838	1.2861	1.2884	1.2907	1.2930	1.2952
104.8					0.9169	0.9176	0.9183	0.9200	0.9217	0.9233	0.9250	0.9266	0.9282
-168.35					0.9173	0.9180	0.9187	0.9205	0.9222	0.9238	0.9255	0.9271	0.9287
4.676					1.2787	1.2797	1.2807	1.2831	1.2854	1.2877	1.2900	1.2923	1.2945
104.9					0.9163	0.9170	0.9177	0.9195	0.9212	0.9228	0.9245	0.9261	0.9277
-168.25					0.9168	0.9175	0.9182	0.9200	0.9217	0.9233	0.9250	0.9266	0.9282
4.709					1.2780	1.2790	1.2799	1.2823	1.2847	1.2870	1.2893	1.2916	1.2938

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM**3

BAR	0.000	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
105.0					0.9158	0.9165	0.9172	0.9189	0.9206	0.9223	0.9240	0.9256	0.9272
-168.15					0.9163	0.9170	0.9177	0.9194	0.9211	0.9228	0.9245	0.9261	0.9277
4.743					1.2773	1.2782	1.2792	1.2816	1.2840	1.2863	1.2886	1.2909	1.2931
105.1					0.9153	0.9160	0.9167	0.9184	0.9201	0.9218	0.9235	0.9251	0.9267
-168.05					0.9158	0.9165	0.9172	0.9189	0.9206	0.9223	0.9240	0.9256	0.9272
4.777					1.2765	1.2775	1.2785	1.2809	1.2833	1.2856	1.2879	1.2902	1.2924
105.2					0.9148	0.9155	0.9162	0.9179	0.9196	0.9213	0.9230	0.9246	0.9262
-167.95					0.9152	0.9160	0.9167	0.9184	0.9201	0.9218	0.9235	0.9251	0.9267
4.812					1.2758	1.2768	1.2778	1.2802	1.2826	1.2849	1.2872	1.2895	1.2918
105.3					0.9142	0.9149	0.9156	0.9174	0.9191	0.9208	0.9225	0.9241	0.9257
-167.85					0.9147	0.9154	0.9161	0.9179	0.9196	0.9213	0.9230	0.9246	0.9262
4.846					1.2751	1.2760	1.2770	1.2795	1.2819	1.2842	1.2865	1.2888	1.2911
105.4					0.9137	0.9144	0.9151	0.9169	0.9186	0.9203	0.9220	0.9236	0.9252
-167.75					0.9142	0.9149	0.9156	0.9174	0.9191	0.9208	0.9225	0.9241	0.9257
4.881					1.2743	1.2753	1.2763	1.2788	1.2812	1.2835	1.2858	1.2881	1.2904
105.5					0.9132	0.9139	0.9146	0.9164	0.9181	0.9198	0.9215	0.9231	0.9247
-167.65					0.9137	0.9144	0.9151	0.9169	0.9186	0.9203	0.9220	0.9236	0.9252
4.916					1.2736	1.2746	1.2756	1.2780	1.2804	1.2828	1.2851	1.2874	1.2897
105.6					0.9126	0.9134	0.9141	0.9158	0.9176	0.9193	0.9210	0.9226	0.9242
-167.55					0.9131	0.9139	0.9146	0.9163	0.9181	0.9198	0.9215	0.9231	0.9247
4.951					1.2728	1.2738	1.2748	1.2773	1.2797	1.2821	1.2844	1.2867	1.2890
105.7					0.9121	0.9128	0.9136	0.9153	0.9171	0.9188	0.9205	0.9221	0.9237
-167.45					0.9126	0.9133	0.9140	0.9158	0.9176	0.9193	0.9210	0.9226	0.9242
4.986					1.2721	1.2731	1.2741	1.2766	1.2790	1.2814	1.2837	1.2860	1.2883
105.8					0.9116	0.9123	0.9130	0.9148	0.9165	0.9183	0.9200	0.9216	0.9232
-167.35					0.9121	0.9128	0.9135	0.9153	0.9170	0.9188	0.9204	0.9221	0.9237
5.021					1.2714	1.2724	1.2734	1.2759	1.2783	1.2807	1.2830	1.2853	1.2876
105.9					0.9111	0.9118	0.9125	0.9143	0.9160	0.9178	0.9194	0.9211	0.9227
-167.25					0.9115	0.9123	0.9130	0.9148	0.9165	0.9183	0.9199	0.9216	0.9232
5.057					1.2706	1.2716	1.2726	1.2751	1.2776	1.2800	1.2823	1.2847	1.2869
106.0					0.9105	0.9113	0.9120	0.9138	0.9155	0.9172	0.9189	0.9206	0.9223
-167.15					0.9110	0.9117	0.9125	0.9143	0.9160	0.9177	0.9194	0.9211	0.9228
5.093					1.2699	1.2709	1.2719	1.2744	1.2769	1.2793	1.2816	1.2840	1.2862
106.1					0.9100	0.9107	0.9115	0.9132	0.9150	0.9167	0.9184	0.9201	0.9218
-167.05					0.9105	0.9112	0.9119	0.9137	0.9155	0.9172	0.9189	0.9206	0.9223
5.129					1.2691	1.2702	1.2712	1.2737	1.2761	1.2786	1.2809	1.2833	1.2856
106.2					0.9095	0.9102	0.9109	0.9127	0.9145	0.9162	0.9179	0.9196	0.9213
-166.95					0.9100	0.9107	0.9114	0.9132	0.9150	0.9167	0.9184	0.9201	0.9218
5.165					1.2684	1.2694	1.2704	1.2730	1.2754	1.2778	1.2802	1.2826	1.2849
106.3					0.9089	0.9097	0.9104	0.9122	0.9140	0.9157	0.9174	0.9191	0.9208
-166.85					0.9094	0.9102	0.9109	0.9127	0.9145	0.9162	0.9179	0.9196	0.9213
5.201					1.2677	1.2687	1.2697	1.2722	1.2747	1.2771	1.2795	1.2819	1.2842
106.4					0.9084	0.9091	0.9099	0.9117	0.9135	0.9152	0.9169	0.9186	0.9203
-166.75					0.9089	0.9096	0.9104	0.9122	0.9139	0.9157	0.9174	0.9191	0.9208
5.237					1.2669	1.2679	1.2690	1.2715	1.2740	1.2764	1.2788	1.2812	1.2835
106.5					0.9079	0.9086	0.9093	0.9112	0.9129	0.9147	0.9164	0.9181	0.9198
-166.65					0.9083	0.9091	0.9098	0.9116	0.9134	0.9152	0.9169	0.9186	0.9203
5.274					1.2662	1.2672	1.2682	1.2708	1.2733	1.2757	1.2781	1.2805	1.2828
106.6					0.9073	0.9081	0.9088	0.9106	0.9124	0.9142	0.9159	0.9176	0.9193
-166.55					0.9078	0.9086	0.9093	0.9111	0.9129	0.9147	0.9164	0.9181	0.9198
5.311					1.2654	1.2665	1.2675	1.2700	1.2725	1.2750	1.2774	1.2798	1.2821
106.7					0.9068	0.9075	0.9083	0.9101	0.9119	0.9137	0.9154	0.9171	0.9188
-166.45					0.9073	0.9080	0.9088	0.9106	0.9124	0.9142	0.9159	0.9176	0.9193
5.348					1.2647	1.2657	1.2668	1.2693	1.2718	1.2743	1.2767	1.2791	1.2814
106.8					0.9063	0.9070	0.9077	0.9096	0.9114	0.9131	0.9149	0.9166	0.9183
-166.35					0.9067	0.9075	0.9082	0.9101	0.9119	0.9136	0.9154	0.9171	0.9188
5.385					1.2639	1.2650	1.2660	1.2686	1.2711	1.2735	1.2760	1.2784	1.2807
106.9					0.9057	0.9065	0.9072	0.9091	0.9109	0.9126	0.9144	0.9161	0.9178
-166.25					0.9062	0.9070	0.9077	0.9095	0.9114	0.9131	0.9149	0.9166	0.9183
5.423					1.2632	1.2642	1.2653	1.2678	1.2704	1.2728	1.2753	1.2777	1.2800

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
107.0					0.9052	0.9059	0.9067	0.9085	0.9103	0.9121	0.9139	0.9156	0.9173
-166.15					0.9057	0.9064	0.9072	0.9090	0.9108	0.9126	0.9144	0.9161	0.9178
5.460					1.2624	1.2635	1.2645	1.2671	1.2696	1.2721	1.2745	1.2769	1.2793
107.1					0.9046	0.9054	0.9061	0.9080	0.9098	0.9116	0.9134	0.9151	0.9168
-166.05					0.9051	0.9059	0.9066	0.9085	0.9103	0.9121	0.9138	0.9156	0.9173
5.498					1.2617	1.2627	1.2638	1.2664	1.2689	1.2714	1.2738	1.2762	1.2786
107.2					0.9041	0.9049	0.9056	0.9075	0.9093	0.9111	0.9128	0.9146	0.9163
-165.95					0.9046	0.9053	0.9061	0.9080	0.9098	0.9116	0.9133	0.9151	0.9168
5.536					1.2609	1.2620	1.2630	1.2656	1.2682	1.2707	1.2731	1.2755	1.2779
107.3					0.9036	0.9043	0.9051	0.9069	0.9088	0.9106	0.9123	0.9141	0.9158
-165.85					0.9040	0.9048	0.9056	0.9074	0.9093	0.9111	0.9128	0.9146	0.9163
5.574					1.2602	1.2612	1.2623	1.2649	1.2674	1.2699	1.2724	1.2748	1.2772
107.4					0.9030	0.9038	0.9045	0.9064	0.9082	0.9101	0.9118	0.9136	0.9153
-165.75					0.9035	0.9043	0.9050	0.9069	0.9087	0.9105	0.9123	0.9141	0.9158
5.613					1.2594	1.2605	1.2615	1.2642	1.2667	1.2692	1.2717	1.2741	1.2765
107.5					0.9025	0.9032	0.9040	0.9059	0.9077	0.9095	0.9113	0.9131	0.9148
-165.65					0.9030	0.9037	0.9045	0.9064	0.9082	0.9100	0.9118	0.9135	0.9153
5.651					1.2587	1.2597	1.2608	1.2634	1.2660	1.2685	1.2710	1.2734	1.2758
107.6					0.9019	0.9027	0.9035	0.9054	0.9072	0.9090	0.9108	0.9125	0.9143
-165.55					0.9024	0.9032	0.9040	0.9059	0.9077	0.9095	0.9113	0.9130	0.9148
5.690					1.2579	1.2590	1.2600	1.2627	1.2653	1.2678	1.2703	1.2727	1.2751
107.7					0.9014	0.9022	0.9029	0.9048	0.9067	0.9085	0.9103	0.9120	0.9138
-165.45					0.9019	0.9027	0.9034	0.9053	0.9072	0.9090	0.9108	0.9125	0.9143
5.729					1.2572	1.2582	1.2593	1.2619	1.2645	1.2671	1.2695	1.2720	1.2744
107.8					0.9009	0.9016	0.9024	0.9043	0.9061	0.9080	0.9098	0.9115	0.9133
-165.35					0.9013	0.9021	0.9029	0.9048	0.9066	0.9085	0.9103	0.9120	0.9138
5.768					1.2564	1.2575	1.2585	1.2612	1.2638	1.2663	1.2688	1.2713	1.2737
107.9					0.9003	0.9011	0.9019	0.9038	0.9056	0.9075	0.9093	0.9110	0.9128
-165.25					0.9008	0.9016	0.9023	0.9042	0.9061	0.9079	0.9097	0.9115	0.9132
5.807					1.2556	1.2567	1.2578	1.2605	1.2631	1.2656	1.2681	1.2706	1.2730
108.0					0.8998	0.9005	0.9013	0.9032	0.9051	0.9069	0.9087	0.9105	0.9123
-165.15					0.9002	0.9010	0.9018	0.9037	0.9056	0.9074	0.9092	0.9110	0.9127
5.847					1.2549	1.2560	1.2570	1.2597	1.2623	1.2649	1.2674	1.2699	1.2723
108.1					0.8992	0.9000	0.9008	0.9027	0.9046	0.9064	0.9082	0.9100	0.9117
-165.05					0.8997	0.9005	0.9013	0.9032	0.9051	0.9069	0.9087	0.9105	0.9122
5.886					1.2541	1.2552	1.2563	1.2590	1.2616	1.2642	1.2667	1.2692	1.2716
108.2					0.8987	0.8995	0.9002	0.9022	0.9040	0.9059	0.9077	0.9095	0.9112
-164.95					0.8992	0.8999	0.9007	0.9026	0.9045	0.9064	0.9082	0.9100	0.9117
5.926					1.2534	1.2545	1.2555	1.2582	1.2608	1.2634	1.2660	1.2684	1.2709
108.3					0.8981	0.8989	0.8997	0.9016	0.9035	0.9054	0.9072	0.9090	0.9107
-164.85					0.8986	0.8994	0.9002	0.9021	0.9040	0.9059	0.9077	0.9095	0.9112
5.966					1.2526	1.2537	1.2548	1.2575	1.2601	1.2627	1.2652	1.2677	1.2702
108.4						0.8984	0.8992	0.9011	0.9030	0.9048	0.9067	0.9085	0.9102
-164.75						0.8989	0.8996	0.9016	0.9035	0.9053	0.9072	0.9090	0.9107
6.007						1.2529	1.2540	1.2567	1.2594	1.2620	1.2645	1.2670	1.2695
108.5						0.8978	0.8986	0.9005	0.9025	0.9043	0.9062	0.9080	0.9097
-164.65						0.8983	0.8991	0.9010	0.9029	0.9048	0.9066	0.9084	0.9102
6.047						1.2522	1.2533	1.2560	1.2586	1.2612	1.2638	1.2663	1.2688
108.6						0.8973	0.8981	0.9000	0.9019	0.9038	0.9056	0.9074	0.9092
-164.55						0.8978	0.8985	0.9005	0.9024	0.9043	0.9061	0.9079	0.9097
6.088						1.2514	1.2525	1.2552	1.2579	1.2605	1.2631	1.2656	1.2681
108.7						0.8967	0.8975	0.8995	0.9014	0.9033	0.9051	0.9069	0.9087
-164.45						0.8972	0.8980	0.9000	0.9019	0.9038	0.9056	0.9074	0.9092
6.129						1.2506	1.2518	1.2545	1.2571	1.2598	1.2623	1.2649	1.2673
108.8						0.8962	0.8970	0.8989	0.9009	0.9027	0.9046	0.9064	0.9082
-164.35						0.8967	0.8975	0.8994	0.9013	0.9032	0.9051	0.9069	0.9087
6.170						1.2499	1.2510	1.2537	1.2564	1.2590	1.2616	1.2641	1.2666
108.9						0.8956	0.8964	0.8984	0.9003	0.9022	0.9041	0.9059	0.9077
-164.25						0.8961	0.8969	0.8989	0.9008	0.9027	0.9046	0.9064	0.9082
6.211						1.2491	1.2502	1.2530	1.2557	1.2583	1.2609	1.2634	1.2659

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR	0.800	1.000	2.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000
KP/CM^2	0.816	1.020	2.039	4.079	6.118	8.158	10.197	15.296	20.394	25.493	30.591	35.690	40.789
109.0						0.8951	0.8959	0.8979	0.8998	0.9017	0.9036	0.9054	0.9072
-164.15						0.8956	0.8964	0.8983	0.9003	0.9022	0.9040	0.9059	0.9077
6.253						1.2484	1.2495	1.2522	1.2549	1.2576	1.2602	1.2627	1.2652
109.1						0.8945	0.8953	0.8973	0.8993	0.9012	0.9030	0.9049	0.9067
-164.05						0.8950	0.8958	0.8978	0.8997	0.9016	0.9035	0.9054	0.9072
6.294						1.2476	1.2487	1.2515	1.2542	1.2568	1.2594	1.2620	1.2645
109.2						0.8940	0.8948	0.8968	0.8987	0.9006	0.9025	0.9043	0.9062
-163.95						0.8945	0.8953	0.8973	0.8992	0.9011	0.9030	0.9048	0.9066
6.336						1.2468	1.2479	1.2507	1.2534	1.2561	1.2587	1.2613	1.2638
109.3						0.8934	0.8942	0.8962	0.8982	0.9001	0.9020	0.9038	0.9056
-163.85						0.8939	0.8947	0.8967	0.8987	0.9006	0.9025	0.9043	0.9061
6.378						1.2460	1.2472	1.2500	1.2527	1.2554	1.2580	1.2606	1.2631
109.4						0.8929	0.8937	0.8957	0.8977	0.8996	0.9015	0.9033	0.9051
-163.75						0.8934	0.8942	0.8962	0.8981	0.9001	0.9019	0.9038	0.9056
6.420						1.2453	1.2464	1.2492	1.2519	1.2546	1.2572	1.2598	1.2624
109.5						0.8923	0.8931	0.8951	0.8971	0.8990	0.9009	0.9028	0.9046
-163.65						0.8928	0.8936	0.8956	0.8976	0.8995	0.9014	0.9033	0.9051
6.463						1.2445	1.2456	1.2484	1.2512	1.2539	1.2565	1.2591	
109.6						0.8918	0.8926	0.8946	0.8966	0.8985	0.9004	0.9023	0.9041
-163.55						0.8923	0.8931	0.8951	0.8971	0.8990	0.9009	0.9028	0.9046
6.506						1.2437	1.2449	1.2477	1.2504	1.2531	1.2558	1.2584	1.2609
109.7						0.8912	0.8920	0.8941	0.8960	0.8980	0.8999	0.9018	0.9036
-163.45						0.8917	0.8925	0.8945	0.8965	0.8985	0.9004	0.9022	0.9041
6.548						1.2430	1.2441	1.2469	1.2497	1.2524	1.2551	1.2577	1.2602
109.8						0.8907	0.8915	0.8935	0.8955	0.8975	0.8994	0.9012	0.9031
-163.35						0.8911	0.8920	0.8940	0.8960	0.8979	0.8998	0.9017	0.9036
6.592						1.2422	1.2433	1.2462	1.2489	1.2517	1.2543	1.2569	1.2595
109.9						0.8901	0.8909	0.8930	0.8950	0.8969	0.8988	0.9007	0.9026
-163.25						0.8906	0.8914	0.8935	0.8954	0.8974	0.8993	0.9012	0.9030
6.635						1.2414	1.2426	1.2454	1.2482	1.2509	1.2536	1.2562	1.2588
110.0						0.8895	0.8904	0.8924	0.8944	0.8964	0.8983	0.9002	0.9020
-163.15						0.8900	0.8909	0.8929	0.8949	0.8969	0.8988	0.9007	0.9025
6.678						1.2406	1.2418	1.2446	1.2474	1.2502	1.2528	1.2555	1.2581
110.1						0.8890	0.8898	0.8919	0.8939	0.8959	0.8978	0.8997	0.9015
-163.05						0.8895	0.8903	0.8924	0.8944	0.8963	0.8983	0.9002	0.9020
6.722						1.2399	1.2410	1.2439	1.2467	1.2494	1.2521	1.2548	1.2573
110.2						0.8884	0.8893	0.8913	0.8933	0.8953	0.8973	0.8992	0.9010
-162.95						0.8889	0.8897	0.8918	0.8938	0.8958	0.8977	0.8996	0.9015
6.766						1.2391	1.2402	1.2431	1.2459	1.2487	1.2514	1.2540	1.2566
110.3						0.8879	0.8887	0.8908	0.8928	0.8948	0.8967	0.8986	0.9005
-162.85						0.8884	0.8892	0.8913	0.8933	0.8953	0.8972	0.8991	0.9010
6.810						1.2383	1.2395	1.2423	1.2452	1.2479	1.2506	1.2533	1.2559
110.4						0.8873	0.8882	0.8902	0.8923	0.8942	0.8962	0.8981	0.9000
-162.75						0.8878	0.8886	0.8907	0.8927	0.8947	0.8967	0.8986	0.9005
6.854						1.2375	1.2387	1.2416	1.2444	1.2472	1.2499	1.2526	1.2552
110.5						0.8867	0.8876	0.8897	0.8917	0.8937	0.8957	0.8976	0.8995
-162.65						0.8872	0.8881	0.8902	0.8922	0.8942	0.8961	0.8981	0.8999
6.899						1.2367	1.2379	1.2408	1.2437	1.2464	1.2492	1.2518	1.2545
110.6						0.8862	0.8870	0.8891	0.8912	0.8932	0.8951	0.8971	0.8989
-162.55						0.8867	0.8875	0.8896	0.8917	0.8937	0.8956	0.8975	0.8994
6.944						1.2359	1.2371	1.2400	1.2429	1.2457	1.2484	1.2511	1.2537
110.7						0.8856	0.8865	0.8886	0.8906	0.8926	0.8946	0.8965	0.8984
-162.45						0.8861	0.8870	0.8891	0.8911	0.8931	0.8951	0.8970	0.8988
6.989						1.2352	1.2363	1.2393	1.2421	1.2449	1.2477	1.2504	1.2530
110.8						0.8851	0.8859	0.8880	0.8901	0.8921	0.8941	0.8960	0.8978
-162.35						0.8855	0.8864	0.8885	0.8906	0.8926	0.8946	0.8965	0.8984
7.034						1.2344	1.2356	1.2385	1.2414	1.2442	1.2469	1.2496	1.2523
110.9						0.8845	0.8854	0.8875	0.8895	0.8916	0.8935	0.8955	0.8974
-162.25						0.8850	0.8858	0.8879	0.8900	0.8920	0.8940	0.8960	0.8979
7.079						1.2336	1.2348	1.2377	1.2406	1.2434	1.2462	1.2489	1.2516

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
111.0						0.8839	0.8848	0.8869	0.8890	0.8910	0.8930	0.8950	0.8969
-162.15						0.8844	0.8853	0.8874	0.8895	0.8915	0.8935	0.8954	0.8973
7.125						1.2328	1.2340	1.2370	1.2398	1.2427	1.2455	1.2482	1.2508
112.0						0.8782	0.8791	0.8813	0.8835	0.8856	0.8876	0.8896	0.8916
-161.15						0.8787	0.8796	0.8818	0.8840	0.8861	0.8881	0.8901	0.8921
7.592						1.2249	1.2261	1.2292	1.2322	1.2351	1.2380	1.2408	1.2435
113.0							0.8734	0.8757	0.8779	0.8801	0.8822	0.8843	0.8863
-160.15							0.8738	0.8761	0.8784	0.8805	0.8827	0.8848	0.8868
8.081							1.2181	1.2213	1.2244	1.2274	1.2304	1.2333	1.2361
114.0							0.8675	0.8699	0.8722	0.8745	0.8767	0.8788	0.8810
-159.15							0.8680	0.8704	0.8727	0.8750	0.8772	0.8793	0.8814
8.592							1.2099	1.2132	1.2165	1.2196	1.2227	1.2257	1.2286
115.0							0.8616	0.8641	0.8665	0.8688	0.8711	0.8733	0.8755
-158.15							0.8620	0.8645	0.8669	0.8693	0.8716	0.8738	0.8760
9.126							1.2016	1.2051	1.2084	1.2117	1.2149	1.2180	1.2211
116.0							0.8555	0.8581	0.8606	0.8631	0.8654	0.8678	0.8700
-157.15							0.8560	0.8586	0.8611	0.8635	0.8659	0.8682	0.8705
9.683							1.1932	1.1968	1.2003	1.2037	1.2070	1.2102	1.2134
117.0								0.8521	0.8547	0.8572	0.8597	0.8621	0.8644
-156.15								0.8525	0.8551	0.8577	0.8601	0.8626	0.8649
10.264								1.1883	1.1920	1.1955	1.1990	1.2023	1.2056
118.0								0.8459	0.8486	0.8513	0.8538	0.8563	0.8588
-155.15								0.8463	0.8491	0.8517	0.8543	0.8568	0.8592
10.870								1.1797	1.1836	1.1872	1.1908	1.1943	1.1977
119.0								0.8398	0.8425	0.8452	0.8479	0.8505	0.8530
-154.15								0.8401	0.8429	0.8457	0.8484	0.8510	0.8535
11.500								1.1710	1.1750	1.1788	1.1825	1.1862	1.1897
120.0								0.8332	0.8362	0.8391	0.8419	0.8446	0.8472
-153.15								0.8336	0.8366	0.8395	0.8423	0.8450	0.8477
12.156								1.1620	1.1662	1.1702	1.1741	1.1779	1.1816
121.0								0.8266	0.8298	0.8328	0.8357	0.8385	0.8413
-152.15								0.8271	0.8302	0.8332	0.8362	0.8390	0.8417
12.839								1.1529	1.1572	1.1615	1.1655	1.1695	1.1733
122.0								0.8199	0.8232	0.8264	0.8294	0.8324	0.8353
-151.15								0.8203	0.8236	0.8268	0.8299	0.8328	0.8357
13.548								1.1435	1.1481	1.1525	1.1568	1.1609	1.1649
123.0								0.8130	0.8165	0.8198	0.8230	0.8261	0.8291
-150.15								0.8134	0.8169	0.8203	0.8235	0.8266	0.8296
14.285								1.1339	1.1387	1.1434	1.1479	1.1522	1.1564
124.0									0.8096	0.8131	0.8165	0.8197	0.8229
-149.15									0.8100	0.8136	0.8169	0.8202	0.8233
15.051									1.1291	1.1340	1.1387	1.1433	1.1476
125.0									0.8025	0.8062	0.8098	0.8132	0.8165
-148.15									0.8030	0.8067	0.8102	0.8136	0.8169
15.845									1.1193	1.1245	1.1294	1.1342	1.1387
126.0									0.7953	0.7992	0.8029	0.8065	0.8100
-147.15									0.7957	0.7996	0.8034	0.8070	0.8104
16.668									1.1091	1.1146	1.1198	1.1249	1.1297
127.0									0.7878	0.7919	0.7959	0.7997	0.8033
-146.15									0.7882	0.7924	0.7963	0.8001	0.8038
17.522									1.0987	1.1045	1.1100	1.1153	1.1204
128.0									0.7800	0.7845	0.7887	0.7927	0.7965
-145.15									0.7804	0.7849	0.7891	0.7931	0.7969
18.406									1.0879	1.0941	1.0999	1.1055	1.1109
129.0									0.7720	0.7767	0.7812	0.7855	0.7895
-144.15									0.7724	0.7771	0.7816	0.7859	0.7898
19.322									1.0766	1.0833	1.0895	1.0955	1.1011
130.0										0.7687	0.7735	0.7780	0.7823
-143.15										0.7691	0.7739	0.7785	0.7828
20.271										1.0721	1.0788	1.0851	1.0911

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	4.000 4.079	6.000 6.118	8.000 8.158	10.000 10.197	15.000 15.296	20.000 20.394	25.000 25.493	30.000 30.591	35.000 35.690	40.000 40.789
131.0										0.7604	0.7656	0.7704	0.7749
-142.15										0.7608	0.7660	0.7708	0.7754
21.253										1.0605	1.0677	1.0744	1.0808
132.0										0.7517	0.7573	0.7625	0.7673
-141.15										0.7521	0.7577	0.7629	0.7677
22.268										1.0484	1.0562	1.0634	1.0702
133.0										0.7426	0.7486	0.7542	0.7594
-140.15										0.7430	0.7491	0.7546	0.7599
23.318										1.0357	1.0441	1.0519	1.0592
134.0										0.7330	0.7396	0.7457	0.7513
-139.15										0.7334	0.7400	0.7461	0.7517
24.404										1.0223	1.0315	1.0400	1.0478
135.0											0.7301	0.7367	0.7428
-138.15											0.7305	0.7371	0.7432
25.525											1.0183	1.0275	1.0359
136.0											0.7201	0.7273	0.7339
-137.15											0.7204	0.7277	0.7343
26.685											1.0043	1.0144	1.0236
137.0											0.7093	0.7174	0.7246
-136.15											0.7097	0.7178	0.7250
27.882											0.9893	1.0005	1.0106
138.0											0.6978	0.7069	0.7149
-135.15											0.6981	0.7072	0.7152
29.118											0.9732	0.9858	0.9970
139.0												0.6955	0.7045
-134.15												0.6959	0.7049
30.394												0.9700	0.9825
140.0												0.6832	0.6934
-133.15												0.6836	0.6938
31.711												0.9529	0.9671
141.0												0.6697	0.6814
-132.15												0.6701	0.6818
33.071												0.9340	0.9504
142.0												0.6544	0.6684
-131.15												0.6548	0.6687
34.473												0.9127	0.9322
143.0													0.6538
-130.15													0.6542
35.920													0.9116
144.0													0.6372
-129.15													0.6375
37.412													0.8887
145.0													0.6173
-128.15													0.6177
38.951													0.8610

9. PARAHYDROGEN

The data for parahydrogen tabulated here are based on the monograph by Roder, et al. (1965). Additional, extensive tables of values based on this source were prepared by McCarty and Weber (1972) for NASA. The tables for the saturated liquid were calculated using the explicit equations for vapor pressure (Weber, et al., 1962) and saturated liquid density (Roder, et al., 1963) which were incorporated unchanged into the final compilation (Roder, et al., 1965). The values for temperatures near room temperature were taken from Hilsenrath, et al. (1955), using a high order interpolation. This is the source used by the experimenters in their determination of the liquid densities. The CGA pamphlet P-6 cites Dean (1961), who also presents a high order interpolation of Hilsenrath's values.

Values near room temperature are given in table 13, uncertainties for the data in table 14, values for the saturated liquid are given in table 15, and values for the compressed liquid are shown in table 16. As stated before, these values do not differ from those presented in

Table 13

Density of Parahydrogen Near Atmospheric Pressure and Room Temperature

Temperature	Pressure	Density		Volume	
		gram-mole/cm^3	kg/dm^3	cm^3/gram-mole	dm^3kg
0° C	1 bar	4.4004×10^{-5}	8.8709×10^{-5}	22725.	11273.
	760 torr	4.4588×10^{-5}	8.9885×10^{-5}	22428.	11125.
15° C	1 bar	4.1716×10^{-5}	8.4097×10^{-5}	23972.	11891.
	760 torr	4.2268×10^{-5}	8.5210×10^{-5}	23658.	11735.
Density Ratios - Dimensionless					
Liquid Density at a boiling pressure of 1 bar*/density at 1 bar and 0° C					798.52
Liquid Density at a boiling pressure of 1 bar/density at 1 bar and 15° C					842.31
Liquid Density at a boiling pressure of 760 torr†/density at 760 torr and 0° C					787.50
Liquid Density at a boiling pressure of 760 torr/density at 760 torr and 15° C					830.73

* Liquid density at a boiling pressure of 1 bar 0.07084 kg/dm^3

† Liquid density at a boiling pressure of 760 torr 0.07079 kg/dm^3

the CGA pamphlet P-6. An astute observer may detect a difference of one part in 4000 in the density at the boiling point at 760 torr between this table and pamphlet P-6, but that difference is caused only by accumulative rounding errors.

The properties presented here pertain to parahydrogen. Specifications for delivery of parahydrogen are usually stated as 95% parahydrogen with the remainder being orthohydrogen. As a matter of fact, producers do not send less than 97% parahydrogen to storage tanks, and the liquid when shipped is, or is very close to being, equilibrium hydrogen. Equilibrium parahydrogen is 99.79% para at the boiling point at 760 torr, and the difference between it and 95% parahydrogen amounts to about 0.008 K or about 2 mm in pressure. It is easy to see that sophisticated equipment is required to detect ortho-para composition. The matter of composition is mentioned because the amount of orthohydrogen present has a very pronounced effect on the length of storage but only a very slight effect on the density.

Table 14

Uncertainties in the Data for Parahydrogen

variable	uncertainty	range of temperature
temperature	0.02 K	triple point to critical point
	0.015 K	room temperature
volume	0.1%	triple point to 32 K
	increases to 0.3%	near critical
	0.01%	room temperature
pressure	0.05%	triple point to critical point
	0.01%	room temperature

TABLE 15 SATURATED LIQUID PARAHYDROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
0.0704	0.0718	13.803	-259.347	0.038206	0.07702	26.174	12.983	1.0873	1.0881
0.0788	0.0804	14.000	-259.150	0.038124	0.07686	26.230	13.011	1.0850	1.0857
0.0858	0.0875	14.150	-259.000	0.038061	0.07673	26.274	13.033	1.0832	1.0840
0.100	0.102	14.430	-258.720	0.037943	0.07649	26.356	13.074	1.0798	1.0806
0.134	0.137	15.000	-258.150	0.037698	0.07600	26.527	13.159	1.0728	1.0736
0.145	0.148	15.150	-258.000	0.037632	0.07586	26.573	13.181	1.0710	1.0717
0.200	0.204	15.832	-257.318	0.037330	0.07526	26.788	13.288	1.0624	1.0632
0.216	0.220	16.000	-257.150	0.037255	0.07510	26.842	13.315	1.0602	1.0610
0.231	0.235	16.150	-257.000	0.037187	0.07497	26.891	13.339	1.0583	1.0590
0.300	0.306	16.770	-256.380	0.036900	0.07439	27.100	13.443	1.0502	1.0509
0.329	0.336	17.000	-256.150	0.036792	0.07417	27.180	13.482	1.0471	1.0478
0.350	0.356	17.150	-256.000	0.036721	0.07403	27.232	13.508	1.0451	1.0458
0.400	0.408	17.497	-255.653	0.036554	0.07369	27.356	13.570	1.0403	1.0410
0.482	0.492	18.000	-255.150	0.036308	0.07320	27.542	13.662	1.0333	1.0340
0.500	0.510	18.101	-255.049	0.036258	0.07309	27.580	13.681	1.0319	1.0326
0.509	0.519	18.150	-255.000	0.036233	0.07304	27.599	13.690	1.0312	1.0319
0.600	0.612	18.621	-254.529	0.035995	0.07256	27.781	13.781	1.0244	1.0251
0.682	0.695	19.000	-254.150	0.035799	0.07217	27.933	13.856	1.0188	1.0195
0.700	0.714	19.081	-254.069	0.035757	0.07208	27.967	13.873	1.0176	1.0183
0.716	0.730	19.150	-254.000	0.035721	0.07201	27.995	13.887	1.0166	1.0173
0.800	0.816	19.496	-253.654	0.035537	0.07164	28.140	13.959	1.0114	1.0121
0.900	0.918	19.875	-253.275	0.035331	0.07123	28.303	14.040	1.0055	1.0062
0.935	0.953	20.000	-253.150	0.035262	0.07109	28.359	14.067	1.0035	1.0043
0.978	0.997	20.150	-253.000	0.035179	0.07092	28.426	14.101	1.0012	1.0019
0.981	1.000	20.158	-252.992	0.035175	0.07091	28.430	14.102	1.0010	1.0017
1.000	1.020	20.224	-252.926	0.035138	0.07084	28.459	14.117	1.0000	1.0007
1.013	1.033	20.268	-252.882	0.035113	0.07079	28.479	14.127	0.9993	1.0000
1.100	1.122	20.549	-252.601	0.034954	0.07047	28.609	14.191	0.9948	0.9955
1.200	1.224	20.854	-252.296	0.034779	0.07011	28.753	14.263	0.9898	0.9905
1.250	1.274	21.000	-252.150	0.034694	0.06994	28.824	14.298	0.9874	0.9881
1.300	1.326	21.142	-252.008	0.034610	0.06977	28.893	14.332	0.9850	0.9857
1.303	1.328	21.150	-252.000	0.034605	0.06976	28.897	14.334	0.9848	0.9855
1.400	1.428	21.414	-251.736	0.034448	0.06944	29.029	14.400	0.9804	0.9811
1.500	1.530	21.672	-251.478	0.034291	0.06913	29.162	14.466	0.9759	0.9766
1.600	1.632	21.918	-251.232	0.034139	0.06882	29.292	14.530	0.9716	0.9723
1.634	1.666	22.000	-251.150	0.034088	0.06872	29.336	14.552	0.9701	0.9708
1.698	1.732	22.150	-251.000	0.033994	0.06853	29.417	14.592	0.9674	0.9681
1.700	1.734	22.154	-250.996	0.033992	0.06853	29.419	14.593	0.9674	0.9681
1.800	1.835	22.380	-250.770	0.033848	0.06824	29.544	14.655	0.9633	0.9640
1.900	1.937	22.596	-250.554	0.033708	0.06795	29.667	14.716	0.9593	0.9600
1.961	2.000	22.725	-250.425	0.033623	0.06778	29.741	14.753	0.9569	0.9576

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
2.000	2.039	22.805	-250.345	0.033571	0.06768	29.788	14.776	0.9554	0.9561
2.096	2.138	23.000	-250.150	0.033441	0.06741	29.903	14.834	0.9517	0.9524
2.100	2.141	23.007	-250.143	0.033436	0.06741	29.908	14.836	0.9516	0.9522
2.173	2.216	23.150	-250.000	0.033340	0.06721	29.994	14.879	0.9488	0.9495
2.200	2.243	23.202	-249.948	0.033305	0.06714	30.026	14.894	0.9478	0.9485
2.300	2.345	23.390	-249.760	0.033175	0.06688	30.143	14.952	0.9441	0.9448
2.400	2.447	23.573	-249.577	0.033048	0.06662	30.259	15.010	0.9405	0.9412
2.500	2.549	23.751	-249.399	0.032923	0.06637	30.374	15.067	0.9370	0.9376
2.600	2.651	23.924	-249.226	0.032800	0.06612	30.488	15.124	0.9335	0.9341
2.645	2.697	24.000	-249.150	0.032745	0.06601	30.539	15.149	0.9319	0.9325
2.700	2.753	24.092	-249.058	0.032678	0.06588	30.602	15.180	0.9300	0.9307
2.735	2.789	24.150	-249.000	0.032635	0.06579	30.642	15.200	0.9288	0.9294
2.800	2.855	24.255	-248.895	0.032558	0.06564	30.714	15.236	0.9266	0.9272
2.900	2.957	24.415	-248.735	0.032439	0.06540	30.827	15.291	0.9232	0.9239
2.942	3.000	24.481	-248.669	0.032390	0.06530	30.874	15.315	0.9218	0.9224
3.000	3.059	24.571	-248.579	0.032322	0.06516	30.938	15.347	0.9199	0.9205
3.100	3.161	24.723	-248.427	0.032206	0.06493	31.050	15.402	0.9166	0.9172
3.200	3.263	24.871	-248.279	0.032091	0.06469	31.161	15.457	0.9133	0.9139
3.288	3.353	25.000	-248.150	0.031991	0.06449	31.259	15.506	0.9104	0.9111
3.300	3.365	25.017	-248.133	0.031978	0.06447	31.272	15.512	0.9101	0.9107
3.393	3.460	25.150	-248.000	0.031872	0.06425	31.375	15.564	0.9071	0.9077
3.400	3.467	25.159	-247.991	0.031865	0.06424	31.383	15.567	0.9068	0.9075
3.500	3.569	25.299	-247.851	0.031753	0.06401	31.493	15.622	0.9037	0.9043
3.600	3.671	25.435	-247.715	0.031642	0.06379	31.603	15.677	0.9005	0.9011
3.700	3.773	25.569	-247.581	0.031532	0.06357	31.714	15.732	0.8974	0.8980
3.800	3.875	25.701	-247.449	0.031423	0.06335	31.824	15.786	0.8943	0.8949
3.900	3.977	25.830	-247.320	0.031314	0.06313	31.935	15.841	0.8912	0.8918
3.923	4.000	25.859	-247.291	0.031289	0.06308	31.960	15.854	0.8905	0.8911
4.000	4.079	25.957	-247.193	0.031206	0.06291	32.045	15.896	0.8881	0.8887
4.035	4.114	26.000	-247.150	0.031168	0.06283	32.084	15.915	0.8870	0.8877
4.100	4.181	26.081	-247.069	0.031098	0.06269	32.156	15.951	0.8850	0.8857
4.156	4.238	26.150	-247.000	0.031038	0.06257	32.218	15.982	0.8833	0.8840
4.200	4.283	26.204	-246.946	0.030991	0.06248	32.267	16.006	0.8820	0.8826
4.300	4.385	26.324	-246.826	0.030885	0.06226	32.378	16.061	0.8790	0.8796
4.400	4.487	26.443	-246.707	0.030779	0.06205	32.490	16.117	0.8759	0.8766
4.500	4.589	26.559	-246.591	0.030673	0.06184	32.602	16.172	0.8729	0.8736
4.600	4.691	26.674	-246.476	0.030568	0.06162	32.714	16.228	0.8699	0.8706
4.700	4.793	26.787	-246.363	0.030463	0.06141	32.827	16.284	0.8670	0.8676
4.800	4.895	26.898	-246.252	0.030359	0.06120	32.940	16.340	0.8640	0.8646
4.892	4.989	27.000	-246.150	0.030262	0.06101	33.045	16.392	0.8612	0.8618
4.900	4.997	27.008	-246.142	0.030254	0.06099	33.053	16.396	0.8610	0.8616
4.903	5.000	27.012	-246.138	0.030251	0.06098	33.057	16.398	0.8609	0.8615
5.000	5.099	27.116	-246.034	0.030150	0.06078	33.167	16.452	0.8581	0.8587
5.031	5.131	27.150	-246.000	0.030118	0.06072	33.203	16.470	0.8571	0.8577
5.100	5.201	27.223	-245.927	0.030046	0.06057	33.282	16.509	0.8551	0.8557

TABLE 15 CONTINUED

SATURATED LIQUID PARAHYDROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS -	DIMENSIONLESS
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
5.200	5.303	27.328	-245.822	0.029943	0.06036	33.397	16.566	0.8521	0.8528
5.300	5.404	27.432	-245.718	0.029839	0.06015	33.513	16.624	0.8492	0.8498
5.400	5.506	27.535	-245.615	0.029736	0.05995	33.629	16.682	0.8463	0.8469
5.500	5.608	27.636	-245.514	0.029633	0.05974	33.747	16.740	0.8433	0.8439
5.600	5.710	27.736	-245.414	0.029529	0.05953	33.865	16.798	0.8404	0.8410
5.700	5.812	27.834	-245.316	0.029426	0.05932	33.983	16.857	0.8374	0.8380
5.800	5.914	27.932	-245.218	0.029323	0.05911	34.103	16.917	0.8345	0.8351
5.871	5.986	28.000	-245.150	0.029250	0.05897	34.188	16.959	0.8324	0.8330
5.884	6.000	28.013	-245.137	0.029236	0.05894	34.204	16.967	0.8320	0.8326
5.900	6.016	28.028	-245.122	0.029220	0.05891	34.223	16.976	0.8316	0.8322
6.000	6.118	28.123	-245.027	0.029117	0.05870	34.345	17.037	0.8286	0.8292
6.028	6.147	28.150	-245.000	0.029087	0.05864	34.379	17.054	0.8278	0.8284
6.100	6.220	28.217	-244.933	0.029013	0.05849	34.467	17.097	0.8257	0.8263
6.200	6.322	28.310	-244.840	0.028910	0.05828	34.590	17.158	0.8228	0.8233
6.300	6.424	28.402	-244.748	0.028806	0.05807	34.714	17.220	0.8198	0.8204
6.400	6.526	28.493	-244.657	0.028703	0.05786	34.840	17.282	0.8169	0.8174
6.500	6.628	28.583	-244.567	0.028599	0.05765	34.966	17.345	0.8139	0.8145
6.600	6.730	28.672	-244.478	0.028495	0.05744	35.094	17.408	0.8109	0.8115
6.700	6.832	28.760	-244.390	0.028391	0.05723	35.223	17.472	0.8080	0.8085
6.800	6.934	28.847	-244.303	0.028286	0.05702	35.353	17.537	0.8050	0.8056
6.865	7.000	28.903	-244.247	0.028218	0.05689	35.438	17.579	0.8031	0.8036
6.900	7.036	28.933	-244.217	0.028181	0.05681	35.485	17.602	0.8020	0.8026
6.978	7.116	29.000	-244.150	0.028099	0.05665	35.588	17.653	0.7997	0.8002
7.000	7.138	29.019	-244.131	0.028076	0.05660	35.618	17.668	0.7990	0.7996
7.100	7.240	29.103	-244.047	0.027971	0.05639	35.752	17.735	0.7960	0.7966
7.156	7.297	29.150	-244.000	0.027911	0.05627	35.828	17.772	0.7943	0.7949
7.200	7.342	29.187	-243.963	0.027865	0.05617	35.888	17.802	0.7930	0.7936
7.300	7.444	29.270	-243.880	0.027759	0.05596	36.025	17.870	0.7900	0.7905
7.400	7.546	29.352	-243.798	0.027652	0.05574	36.164	17.939	0.7870	0.7875
7.500	7.648	29.433	-243.717	0.027545	0.05553	36.305	18.009	0.7839	0.7845
7.600	7.750	29.513	-243.637	0.027437	0.05531	36.447	18.079	0.7808	0.7814
7.700	7.852	29.593	-243.557	0.027329	0.05509	36.591	18.151	0.7778	0.7783
7.800	7.954	29.672	-243.478	0.027220	0.05487	36.737	18.223	0.7747	0.7752
7.845	8.000	29.708	-243.442	0.027171	0.05478	36.804	18.256	0.7733	0.7738
7.900	8.056	29.750	-243.400	0.027111	0.05465	36.885	18.297	0.7716	0.7721
8.000	8.158	29.828	-243.322	0.027002	0.05443	37.035	18.371	0.7684	0.7690
8.100	8.260	29.905	-243.245	0.026891	0.05421	37.187	18.446	0.7653	0.7658
8.200	8.362	29.981	-243.169	0.026780	0.05399	37.341	18.523	0.7621	0.7627
8.225	8.387	30.000	-243.150	0.026752	0.05393	37.380	18.542	0.7613	0.7619
8.300	8.464	30.056	-243.094	0.026668	0.05376	37.498	18.601	0.7590	0.7595
8.400	8.566	30.131	-243.019	0.026556	0.05353	37.657	18.679	0.7558	0.7563
8.425	8.591	30.150	-243.000	0.026527	0.05348	37.697	18.700	0.7549	0.7555
8.500	8.668	30.205	-242.945	0.026442	0.05331	37.818	18.760	0.7525	0.7531
8.600	8.770	30.279	-242.871	0.026328	0.05308	37.982	18.841	0.7493	0.7498
8.700	8.872	30.352	-242.798	0.026213	0.05284	38.149	18.924	0.7460	0.7465

TABLE 15 CONTINUED

SATURATED LIQUID PARAHYDROGEN

PRESSURE		TEMPERATURE		DENSITY		VOLUME		DENSITY RATIOS - DIMENSIONLESS	
BAR	KP/CM^2	KELVIN	CELSIUS	GRAM-MOLE/ CM^3	KG/ DM^3	CM^3/ GRAM-MOLE	DM^3/ KG	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 1 BAR	LIQUID DENSITY/ DENSITY AT A BOIL. PRESS. OF 760 TORR
8.800	8.974	30.424	-242.726	0.026097	0.05261	38.318	19.008	0.7427	0.7432
8.826	9.000	30.443	-242.707	0.026067	0.05255	38.363	19.030	0.7418	0.7424
8.900	9.075	30.496	-242.654	0.025980	0.05237	38.491	19.093	0.7394	0.7399
9.000	9.177	30.567	-242.583	0.025862	0.05214	38.667	19.180	0.7360	0.7365
9.100	9.279	30.638	-242.512	0.025743	0.05190	38.846	19.269	0.7326	0.7331
9.200	9.381	30.708	-242.442	0.025623	0.05165	39.028	19.360	0.7292	0.7297
9.300	9.483	30.777	-242.373	0.025501	0.05141	39.214	19.452	0.7257	0.7263
9.400	9.585	30.846	-242.304	0.025378	0.05116	39.404	19.546	0.7222	0.7228
9.500	9.687	30.914	-242.236	0.025254	0.05091	39.598	19.642	0.7187	0.7192
9.600	9.789	30.982	-242.168	0.025128	0.05066	39.796	19.741	0.7151	0.7156
9.627	9.816	31.000	-242.150	0.025095	0.05059	39.849	19.767	0.7142	0.7147
9.700	9.891	31.049	-242.101	0.025001	0.05040	39.999	19.841	0.7115	0.7120
9.800	9.993	31.116	-242.034	0.024872	0.05014	40.206	19.944	0.7078	0.7083
9.807	10.000	31.121	-242.029	0.024863	0.05012	40.220	19.951	0.7076	0.7081
9.851	10.045	31.150	-242.000	0.024806	0.05001	40.314	19.997	0.7059	0.7064
9.900	10.095	31.182	-241.968	0.024741	0.04988	40.418	20.049	0.7041	0.7046
10.000	10.197	31.248	-241.902	0.024609	0.04961	40.636	20.157	0.7003	0.7008
10.100	10.299	31.314	-241.836	0.024474	0.04934	40.860	20.268	0.6965	0.6970
10.200	10.401	31.378	-241.772	0.024337	0.04906	41.089	20.382	0.6926	0.6931
10.300	10.503	31.443	-241.707	0.024198	0.04878	41.325	20.499	0.6887	0.6891
10.400	10.605	31.507	-241.643	0.024057	0.04850	41.569	20.620	0.6846	0.6851
10.500	10.707	31.570	-241.580	0.023913	0.04821	41.819	20.744	0.6805	0.6810
10.600	10.809	31.633	-241.517	0.023766	0.04791	42.078	20.872	0.6764	0.6768
10.700	10.911	31.695	-241.455	0.023616	0.04761	42.345	21.005	0.6721	0.6726
10.787	11.000	31.750	-241.400	0.023482	0.04734	42.586	21.124	0.6683	0.6688
10.800	11.013	31.758	-241.392	0.023462	0.04730	42.621	21.142	0.6677	0.6682
10.900	11.115	31.819	-241.331	0.023306	0.04698	42.908	21.284	0.6633	0.6637
11.000	11.217	31.880	-241.270	0.023145	0.04666	43.206	21.432	0.6587	0.6592
11.100	11.319	31.941	-241.209	0.022980	0.04633	43.516	21.586	0.6540	0.6545
11.198	11.419	32.000	-241.150	0.022814	0.04599	43.832	21.743	0.6493	0.6497
11.200	11.421	32.001	-241.149	0.022811	0.04599	43.839	21.746	0.6492	0.6496
11.300	11.523	32.061	-241.089	0.022636	0.04563	44.177	21.914	0.6442	0.6447
11.400	11.625	32.121	-241.029	0.022456	0.04527	44.531	22.090	0.6391	0.6395
11.450	11.675	32.150	-241.000	0.022364	0.04508	44.714	22.180	0.6365	0.6369
11.500	11.727	32.180	-240.970	0.022270	0.04489	44.904	22.275	0.6338	0.6342
11.600	11.829	32.238	-240.912	0.022076	0.04450	45.298	22.470	0.6283	0.6287
11.700	11.931	32.296	-240.854	0.021875	0.04410	45.714	22.676	0.6225	0.6230
11.768	12.000	32.336	-240.814	0.021733	0.04381	46.003	22.825	0.6185	0.6189
11.800	12.033	32.354	-240.796	0.021665	0.04367	46.158	22.897	0.6166	0.6170
11.900	12.135	32.411	-240.739	0.021444	0.04323	46.634	23.132	0.6103	0.6107
12.000	12.237	32.468	-240.682	0.021211	0.04276	47.146	23.387	0.6036	0.6041
12.749	13.000	32.881	-240.269	0.018570	0.03744	53.851	26.712	0.5285	0.5289
12.928	13.183	32.976	-240.174	0.015590	0.03143	64.144	31.818	0.4437	0.4440

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/CM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	3.000 3.059	4.000 4.079	5.000 5.099	6.000 6.118	7.000 7.138	8.000 8.158	9.000 9.177	10.000 10.197	11.000 11.217	12.000 12.237
19.5		1.0116	1.0135	1.0153	1.0171	1.0189	1.0206	1.0224	1.0241	1.0258	1.0274	1.0291	1.0307
-253.65		1.0124	1.0142	1.0160	1.0178	1.0196	1.0214	1.0231	1.0248	1.0265	1.0282	1.0298	1.0314
0.801		0.07166	0.07179	0.07192	0.07205	0.07217	0.07230	0.07242	0.07254	0.07266	0.07278	0.07290	0.07301
19.6		1.0101	1.0119	1.0138	1.0156	1.0174	1.0191	1.0209	1.0226	1.0243	1.0260	1.0276	1.0293
-253.55		1.0108	1.0126	1.0145	1.0163	1.0181	1.0199	1.0216	1.0233	1.0250	1.0267	1.0284	1.0300
0.827		0.07155	0.07168	0.07181	0.07194	0.07207	0.07219	0.07232	0.07244	0.07256	0.07268	0.07279	0.07291
19.7		1.0085	1.0104	1.0122	1.0140	1.0158	1.0176	1.0194	1.0211	1.0228	1.0245	1.0262	1.0279
-253.45		1.0092	1.0111	1.0129	1.0148	1.0166	1.0184	1.0201	1.0218	1.0236	1.0252	1.0269	1.0286
0.853		0.07144	0.07157	0.07170	0.07183	0.07196	0.07208	0.07221	0.07233	0.07245	0.07257	0.07269	0.07281
19.8		1.0069	1.0088	1.0107	1.0125	1.0143	1.0161	1.0179	1.0196	1.0214	1.0231	1.0247	1.0264
-253.35		1.0076	1.0095	1.0114	1.0132	1.0150	1.0168	1.0186	1.0204	1.0221	1.0238	1.0255	1.0271
0.880		0.07133	0.07146	0.07159	0.07172	0.07185	0.07198	0.07210	0.07223	0.07235	0.07247	0.07259	0.07271
19.9		1.0053	1.0072	1.0091	1.0109	1.0128	1.0146	1.0164	1.0181	1.0199	1.0216	1.0233	1.0250
-253.25		1.0060	1.0079	1.0098	1.0117	1.0135	1.0153	1.0171	1.0189	1.0206	1.0223	1.0240	1.0257
0.907		0.07121	0.07135	0.07148	0.07161	0.07174	0.07187	0.07200	0.07212	0.07224	0.07237	0.07249	0.07260
20.0		1.0037	1.0056	1.0075	1.0094	1.0112	1.0131	1.0149	1.0166	1.0184	1.0201	1.0218	1.0235
-253.15		1.0044	1.0063	1.0082	1.0101	1.0119	1.0138	1.0156	1.0173	1.0191	1.0208	1.0225	1.0242
0.935		0.07110	0.07123	0.07137	0.07150	0.07163	0.07176	0.07188	0.07201	0.07214	0.07226	0.07238	0.07250
20.1		1.0021	1.0040	1.0059	1.0078	1.0097	1.0115	1.0133	1.0151	1.0169	1.0186	1.0204	1.0221
-253.05		1.0028	1.0047	1.0066	1.0085	1.0104	1.0122	1.0140	1.0158	1.0176	1.0193	1.0211	1.0228
0.964		0.07098	0.07112	0.07126	0.07139	0.07152	0.07165	0.07178	0.07191	0.07203	0.07216	0.07228	0.07240
20.2		1.0004	1.0024	1.0043	1.0062	1.0081	1.0099	1.0118	1.0136	1.0154	1.0171	1.0189	1.0206
-252.95		1.0011	1.0031	1.0050	1.0069	1.0088	1.0107	1.0125	1.0143	1.0161	1.0178	1.0196	1.0213
0.993		0.07087	0.07101	0.07114	0.07128	0.07141	0.07154	0.07167	0.07180	0.07192	0.07205	0.07217	0.07229
20.3			1.0008	1.0027	1.0046	1.0065	1.0084	1.0102	1.0121	1.0138	1.0156	1.0174	1.0191
-252.85			1.0015	1.0034	1.0053	1.0072	1.0091	1.0109	1.0128	1.0146	1.0163	1.0181	1.0198
1.023			0.07089	0.07103	0.07116	0.07130	0.07143	0.07156	0.07169	0.07182	0.07194	0.07207	0.07219
20.4			0.9991	1.0011	1.0030	1.0049	1.0068	1.0087	1.0105	1.0123	1.0141	1.0159	1.0176
-252.75			0.9998	1.0018	1.0037	1.0056	1.0075	1.0094	1.0112	1.0130	1.0148	1.0166	1.0183
1.053			0.07077	0.07091	0.07105	0.07119	0.07132	0.07145	0.07158	0.07171	0.07184	0.07196	0.07208
20.5			0.9975	0.9994	1.0014	1.0033	1.0052	1.0071	1.0090	1.0108	1.0126	1.0144	1.0161
-252.65			0.9982	1.0002	1.0021	1.0040	1.0059	1.0078	1.0097	1.0115	1.0133	1.0151	1.0168
1.084			0.07066	0.07080	0.07094	0.07107	0.07121	0.07134	0.07147	0.07160	0.07173	0.07185	0.07198
20.6			0.9958	0.9978	0.9998	1.0017	1.0036	1.0055	1.0074	1.0092	1.0111	1.0128	1.0146
-252.55			0.9965	0.9985	1.0005	1.0024	1.0043	1.0062	1.0081	1.0099	1.0118	1.0136	1.0153
1.116			0.07054	0.07068	0.07082	0.07096	0.07109	0.07123	0.07136	0.07149	0.07162	0.07175	0.07187
20.7			0.9941	0.9961	0.9981	1.0001	1.0020	1.0039	1.0058	1.0077	1.0095	1.0113	1.0131
-252.45			0.9948	0.9968	0.9988	1.0008	1.0027	1.0046	1.0065	1.0084	1.0102	1.0120	1.0138
1.149			0.07042	0.07056	0.07070	0.07084	0.07098	0.07111	0.07125	0.07138	0.07151	0.07164	0.07176
20.8			0.9924	0.9944	0.9965	0.9984	1.0004	1.0023	1.0042	1.0061	1.0080	1.0098	1.0116
-252.35			0.9931	0.9951	0.9972	0.9992	1.0011	1.0030	1.0049	1.0068	1.0087	1.0105	1.0123
1.182			0.07030	0.07044	0.07059	0.07073	0.07086	0.07100	0.07114	0.07127	0.07140	0.07153	0.07166
20.9			0.9907	0.9927	0.9948	0.9968	0.9988	1.0007	1.0026	1.0045	1.0064	1.0082	1.0100
-252.25			0.9914	0.9935	0.9955	0.9975	0.9995	1.0014	1.0033	1.0052	1.0071	1.0089	1.0108
1.216			0.07018	0.07032	0.07047	0.07061	0.07075	0.07088	0.07102	0.07116	0.07129	0.07142	0.07155
21.0			0.9889	0.9910	0.9931	0.9951	0.9971	0.9991	1.0010	1.0029	1.0048	1.0067	1.0085
-252.15			0.9897	0.9917	0.9938	0.9958	0.9978	0.9998	1.0017	1.0036	1.0055	1.0074	1.0092
1.250			0.07005	0.07020	0.07035	0.07049	0.07063	0.07077	0.07091	0.07104	0.07118	0.07131	0.07144
21.1			0.9872	0.9893	0.9914	0.9935	0.9955	0.9975	0.9994	1.0013	1.0032	1.0051	1.0070
-252.05			0.9879	0.9900	0.9921	0.9942	0.9962	0.9982	1.0001	1.0020	1.0039	1.0058	1.0077
1.285			0.06993	0.07008	0.07023	0.07037	0.07052	0.07066	0.07079	0.07093	0.07107	0.07120	0.07133
21.2			0.9855	0.9876	0.9897	0.9918	0.9938	0.9958	0.9978	0.9997	1.0016	1.0035	1.0054
-251.95			0.9862	0.9883	0.9904	0.9925	0.9945	0.9965	0.9985	1.0004	1.0024	1.0042	1.0061
1.321			0.06981	0.06996	0.07011	0.07025	0.07040	0.07054	0.07068	0.07082	0.07095	0.07109	0.07122
21.3			0.9837	0.9859	0.9880	0.9901	0.9921	0.9942	0.9961	0.9981	1.0000	1.0019	1.0038
-251.85			0.9844	0.9866	0.9887	0.9908	0.9928	0.9949	0.9968	0.9988	1.0007	1.0027	1.0045
1.357			0.06968	0.06983	0.06999	0.07013	0.07028	0.07042	0.07056	0.07070	0.07084	0.07097	0.07111
21.4			0.9819	0.9841	0.9863	0.9884	0.9904	0.9925	0.9945	0.9965	0.9984	1.0003	1.0022
-251.75			0.9826	0.9848	0.9870	0.9891	0.9911	0.9932	0.9952	0.9972	0.9991	1.0011	1.0030
1.395			0.06956	0.06971	0.06986	0.07001	0.07016	0.07030	0.07045	0.07059	0.07072	0.07086	0.07099

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	3.000 3.059	4.000 4.079	5.000 5.099	6.000 6.118	7.000 7.138	8.000 8.158	9.800 9.177	10.000 10.197	11.000 11.217	12.000 12.237
21.5			0.9802	0.9823	0.9845	0.9866	0.9887	0.9908	0.9928	0.9948	0.9968	0.9987	1.0007
-251.65			0.9808	0.9830	0.9852	0.9873	0.9894	0.9915	0.9935	0.9955	0.9975	0.9994	1.0014
1.433			0.06943	0.06959	0.06974	0.06989	0.07004	0.07018	0.07033	0.07047	0.07061	0.07075	0.07088
21.6			0.9784	0.9806	0.9828	0.9849	0.9870	0.9891	0.9912	0.9932	0.9952	0.9971	0.9991
-251.55			0.9790	0.9813	0.9835	0.9856	0.9877	0.9898	0.9919	0.9939	0.9959	0.9978	0.9998
1.471			0.06930	0.06946	0.06961	0.06977	0.06992	0.07006	0.07021	0.07035	0.07049	0.07063	0.07077
21.7			0.9765	0.9788	0.9810	0.9832	0.9853	0.9874	0.9895	0.9915	0.9935	0.9955	0.9974
-251.45			0.9772	0.9795	0.9817	0.9839	0.9860	0.9881	0.9902	0.9922	0.9942	0.9962	0.9981
1.511			0.06917	0.06933	0.06949	0.06964	0.06980	0.06994	0.07009	0.07024	0.07038	0.07052	0.07065
21.8			0.9747	0.9770	0.9792	0.9814	0.9836	0.9857	0.9878	0.9898	0.9919	0.9939	0.9958
-251.35			0.9754	0.9777	0.9799	0.9821	0.9843	0.9864	0.9885	0.9905	0.9926	0.9946	0.9965
1.551			0.06905	0.06921	0.06936	0.06952	0.06967	0.06982	0.06997	0.07012	0.07026	0.07040	0.07054
21.9			0.9729	0.9752	0.9774	0.9796	0.9818	0.9840	0.9861	0.9882	0.9902	0.9922	0.9942
-251.25			0.9736	0.9759	0.9781	0.9803	0.9825	0.9847	0.9868	0.9889	0.9909	0.9929	0.9949
1.592			0.06891	0.06908	0.06924	0.06939	0.06955	0.06970	0.06985	0.07000	0.07014	0.07028	0.07042
22.0			0.9710	0.9733	0.9756	0.9779	0.9801	0.9822	0.9844	0.9865	0.9885	0.9906	0.9926
-251.15			0.9717	0.9740	0.9763	0.9785	0.9808	0.9829	0.9851	0.9872	0.9892	0.9913	0.9933
1.634			0.06878	0.06895	0.06911	0.06927	0.06942	0.06958	0.06973	0.06988	0.07002	0.07017	0.07031
22.1			0.9691	0.9715	0.9738	0.9761	0.9783	0.9805	0.9826	0.9847	0.9868	0.9889	0.9909
-251.05			0.9698	0.9722	0.9745	0.9768	0.9790	0.9812	0.9833	0.9854	0.9875	0.9896	0.9916
1.677			0.06865	0.06882	0.06898	0.06914	0.06930	0.06945	0.06961	0.06976	0.06990	0.07005	0.07019
22.2			0.9672	0.9696	0.9720	0.9742	0.9765	0.9787	0.9809	0.9830	0.9851	0.9872	0.9892
-250.95			0.9679	0.9703	0.9726	0.9749	0.9772	0.9794	0.9816	0.9837	0.9858	0.9879	0.9899
1.720			0.06851	0.06868	0.06885	0.06901	0.06917	0.06933	0.06948	0.06963	0.06978	0.06993	0.07007
22.3			0.9653	0.9678	0.9701	0.9724	0.9747	0.9769	0.9791	0.9813	0.9834	0.9855	0.9876
-250.85			0.9660	0.9684	0.9708	0.9731	0.9754	0.9776	0.9798	0.9820	0.9841	0.9862	0.9883
1.764			0.06838	0.06855	0.06872	0.06888	0.06904	0.06920	0.06936	0.06951	0.06966	0.06981	0.06996
22.4			0.9634	0.9658	0.9682	0.9706	0.9729	0.9751	0.9774	0.9795	0.9817	0.9838	0.9859
-250.75			0.9641	0.9665	0.9689	0.9713	0.9736	0.9758	0.9780	0.9802	0.9824	0.9845	0.9866
1.809			0.06824	0.06842	0.06859	0.06875	0.06891	0.06907	0.06923	0.06939	0.06954	0.06969	0.06984
22.5			0.9614	0.9639	0.9663	0.9687	0.9710	0.9733	0.9756	0.9778	0.9799	0.9821	0.9842
-250.65			0.9621	0.9646	0.9670	0.9694	0.9717	0.9740	0.9763	0.9785	0.9806	0.9828	0.9849
1.855			0.06810	0.06828	0.06845	0.06862	0.06879	0.06895	0.06911	0.06926	0.06942	0.06957	0.06972
22.6			0.9595	0.9620	0.9644	0.9668	0.9692	0.9715	0.9738	0.9760	0.9782	0.9803	0.9825
-250.55			0.9601	0.9626	0.9651	0.9675	0.9699	0.9722	0.9745	0.9767	0.9789	0.9810	0.9832
1.902			0.06796	0.06814	0.06832	0.06849	0.06865	0.06882	0.06898	0.06914	0.06929	0.06944	0.06960
22.7			0.9575	0.9600	0.9625	0.9649	0.9673	0.9697	0.9720	0.9742	0.9764	0.9786	0.9807
-250.45			0.9581	0.9607	0.9632	0.9656	0.9680	0.9704	0.9727	0.9749	0.9771	0.9793	0.9814
1.949			0.06782	0.06800	0.06818	0.06835	0.06852	0.06869	0.06885	0.06901	0.06917	0.06932	0.06947
22.8			0.9555	0.9580	0.9606	0.9630	0.9654	0.9678	0.9701	0.9724	0.9747	0.9769	0.9790
-250.35			0.9561	0.9587	0.9612	0.9637	0.9661	0.9685	0.9708	0.9731	0.9753	0.9775	0.9797
1.997			0.06768	0.06786	0.06804	0.06822	0.06839	0.06856	0.06872	0.06888	0.06904	0.06920	0.06935
22.9				0.9560	0.9586	0.9611	0.9635	0.9659	0.9683	0.9706	0.9729	0.9751	0.9773
-250.25				0.9567	0.9593	0.9618	0.9642	0.9666	0.9690	0.9713	0.9736	0.9758	0.9780
2.047				0.06772	0.06790	0.06808	0.06825	0.06842	0.06859	0.06875	0.06891	0.06907	0.06923
23.0				0.9540	0.9566	0.9592	0.9616	0.9641	0.9664	0.9688	0.9711	0.9733	0.9755
-250.15				0.9547	0.9573	0.9598	0.9623	0.9647	0.9671	0.9695	0.9717	0.9740	0.9762
2.096				0.06758	0.06776	0.06794	0.06812	0.06829	0.06846	0.06862	0.06879	0.06895	0.06910
23.1				0.9520	0.9546	0.9572	0.9597	0.9622	0.9646	0.9669	0.9692	0.9715	0.9737
-250.05				0.9527	0.9553	0.9579	0.9604	0.9628	0.9652	0.9676	0.9699	0.9722	0.9744
2.147				0.06744	0.06762	0.06780	0.06798	0.06816	0.06833	0.06849	0.06866	0.06882	0.06898
23.2				0.9500	0.9526	0.9552	0.9578	0.9602	0.9627	0.9651	0.9674	0.9697	0.9720
-249.95				0.9507	0.9533	0.9559	0.9584	0.9609	0.9634	0.9657	0.9681	0.9704	0.9726
2.199				0.06729	0.06748	0.06766	0.06784	0.06802	0.06819	0.06836	0.06853	0.06869	0.06885
23.3				0.9479	0.9506	0.9532	0.9558	0.9583	0.9608	0.9632	0.9656	0.9679	0.9702
-249.85				0.9486	0.9513	0.9539	0.9565	0.9590	0.9615	0.9639	0.9662	0.9686	0.9709
2.252				0.06715	0.06734	0.06752	0.06770	0.06788	0.06806	0.06823	0.06840	0.06856	0.06872
23.4				0.9458	0.9486	0.9512	0.9538	0.9564	0.9589	0.9613	0.9637	0.9660	0.9684
-249.75				0.9465	0.9492	0.9519	0.9545	0.9570	0.9595	0.9620	0.9644	0.9667	0.9690
2.305				0.06700	0.06719	0.06738	0.06756	0.06774	0.06792	0.06809	0.06826	0.06843	0.06859

TABLE ENTRIES

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM2	0.800 0.816	1.000 1.020	2.000 2.039	3.000 3.059	4.000 4.079	5.000 5.099	6.000 6.118	7.000 7.138	8.000 8.158	9.000 9.177	10.000 10.197	11.000 11.217	12.000 12.237
23.5				0.9437	0.9465	0.9492	0.9518	0.9544	0.9569	0.9594	0.9618	0.9642	0.9665
-249.65				0.9444	0.9472	0.9499	0.9525	0.9551	0.9576	0.9601	0.9625	0.9649	0.9672
2.360				0.06685	0.06705	0.06724	0.06742	0.06761	0.06778	0.06796	0.06813	0.06830	0.06846
23.6				0.9416	0.9444	0.9471	0.9498	0.9524	0.9550	0.9575	0.9599	0.9623	0.9647
-249.55				0.9423	0.9451	0.9478	0.9505	0.9531	0.9556	0.9582	0.9606	0.9630	0.9654
2.415				0.06670	0.06690	0.06709	0.06728	0.06747	0.06765	0.06782	0.06800	0.06817	0.06833
23.7				0.9395	0.9423	0.9451	0.9478	0.9504	0.9530	0.9555	0.9580	0.9604	0.9628
-249.45				0.9401	0.9430	0.9457	0.9484	0.9511	0.9537	0.9562	0.9587	0.9611	0.9635
2.471				0.06655	0.06675	0.06695	0.06714	0.06732	0.06751	0.06769	0.06786	0.06803	0.06820
23.8				0.9373	0.9402	0.9430	0.9457	0.9484	0.9510	0.9536	0.9561	0.9586	0.9610
-249.35				0.9380	0.9408	0.9437	0.9464	0.9491	0.9517	0.9543	0.9568	0.9592	0.9616
2.528				0.06639	0.06660	0.06680	0.06699	0.06718	0.06737	0.06755	0.06773	0.06790	0.06807
23.9				0.9351	0.9380	0.9409	0.9437	0.9464	0.9490	0.9516	0.9542	0.9566	0.9591
-249.25				0.9358	0.9387	0.9416	0.9443	0.9470	0.9497	0.9523	0.9548	0.9573	0.9598
2.586				0.06624	0.06645	0.06665	0.06685	0.06704	0.06723	0.06741	0.06759	0.06777	0.06794
24.0				0.9329	0.9359	0.9387	0.9416	0.9443	0.9470	0.9496	0.9522	0.9547	0.9572
-249.15				0.9336	0.9365	0.9394	0.9422	0.9450	0.9477	0.9503	0.9529	0.9554	0.9579
2.645				0.06608	0.06629	0.06650	0.06670	0.06689	0.06708	0.06727	0.06745	0.06763	0.06780
24.1				0.9307	0.9337	0.9366	0.9395	0.9423	0.9450	0.9476	0.9502	0.9528	0.9553
-249.05				0.9313	0.9343	0.9373	0.9401	0.9429	0.9456	0.9483	0.9509	0.9535	0.9560
2.705				0.06592	0.06614	0.06634	0.06655	0.06675	0.06694	0.06713	0.06731	0.06749	0.06767
24.2				0.9284	0.9315	0.9344	0.9373	0.9402	0.9429	0.9456	0.9483	0.9508	0.9534
-248.95				0.9291	0.9321	0.9351	0.9380	0.9408	0.9436	0.9463	0.9489	0.9515	0.9540
2.766				0.06576	0.06598	0.06619	0.06640	0.06660	0.06679	0.06698	0.06717	0.06735	0.06753
24.3				0.9261	0.9292	0.9322	0.9352	0.9380	0.9409	0.9436	0.9462	0.9489	0.9514
-248.85				0.9268	0.9299	0.9329	0.9358	0.9387	0.9415	0.9443	0.9469	0.9495	0.9521
2.828				0.06560	0.06582	0.06604	0.06624	0.06645	0.06665	0.06684	0.06703	0.06721	0.06739
24.4				0.9238	0.9270	0.9300	0.9330	0.9359	0.9387	0.9415	0.9442	0.9469	0.9495
-248.75				0.9244	0.9276	0.9307	0.9337	0.9366	0.9394	0.9422	0.9449	0.9475	0.9501
2.891				0.06544	0.06566	0.06588	0.06609	0.06630	0.06650	0.06669	0.06689	0.06707	0.06726
24.5				0.9214	0.9246	0.9278	0.9308	0.9338	0.9366	0.9395	0.9422	0.9449	0.9475
-248.65				0.9221	0.9253	0.9284	0.9315	0.9344	0.9373	0.9401	0.9429	0.9455	0.9482
2.954				0.06527	0.06550	0.06572	0.06593	0.06614	0.06635	0.06655	0.06674	0.06693	0.06712
24.6					0.9223	0.9255	0.9286	0.9316	0.9345	0.9373	0.9401	0.9428	0.9455
-248.55					0.9230	0.9262	0.9293	0.9322	0.9352	0.9380	0.9408	0.9435	0.9462
3.019					0.06533	0.06556	0.06578	0.06598	0.06620	0.06640	0.06660	0.06679	0.06698
24.7					0.9200	0.9232	0.9264	0.9294	0.9323	0.9352	0.9380	0.9408	0.9435
-248.45					0.9206	0.9239	0.9270	0.9301	0.9330	0.9359	0.9387	0.9415	0.9442
3.085					0.06517	0.06540	0.06562	0.06582	0.06604	0.06625	0.06645	0.06664	0.06683
24.8					0.9176	0.9209	0.9241	0.9272	0.9302	0.9331	0.9359	0.9387	0.9415
-248.35					0.9183	0.9215	0.9247	0.9278	0.9308	0.9338	0.9366	0.9394	0.9421
3.152					0.06500	0.06523	0.06546	0.06568	0.06589	0.06610	0.06630	0.06650	0.06669
24.9					0.9152	0.9186	0.9218	0.9249	0.9280	0.9309	0.9338	0.9367	0.9394
-248.25					0.9159	0.9192	0.9224	0.9256	0.9286	0.9316	0.9345	0.9373	0.9401
3.220					0.06483	0.06507	0.06530	0.06552	0.06574	0.06594	0.06615	0.06635	0.06655
25.0					0.9128	0.9162	0.9195	0.9226	0.9258	0.9288	0.9317	0.9346	0.9373
-248.15					0.9135	0.9169	0.9201	0.9233	0.9264	0.9294	0.9324	0.9352	0.9380
3.288					0.06466	0.06490	0.06513	0.06536	0.06558	0.06579	0.06600	0.06620	0.06640
25.1					0.9104	0.9138	0.9171	0.9204	0.9235	0.9266	0.9296	0.9324	0.9353
-248.05					0.9110	0.9145	0.9178	0.9210	0.9241	0.9272	0.9302	0.9331	0.9359
3.358					0.06449	0.06473	0.06497	0.06519	0.06542	0.06564	0.06585	0.06605	0.06625
25.2					0.9079	0.9114	0.9148	0.9181	0.9212	0.9243	0.9274	0.9303	0.9332
-247.95					0.9085	0.9120	0.9154	0.9187	0.9219	0.9250	0.9280	0.9310	0.9338
3.429					0.06431	0.06456	0.06480	0.06503	0.06526	0.06548	0.06569	0.06590	0.06610
25.3					0.9054	0.9089	0.9124	0.9157	0.9189	0.9221	0.9252	0.9282	0.9311
-247.85					0.9060	0.9096	0.9130	0.9164	0.9196	0.9227	0.9258	0.9288	0.9317
3.501					0.06413	0.06439	0.06463	0.06487	0.06510	0.06532	0.06554	0.06575	0.06595
25.4					0.9028	0.9065	0.9100	0.9134	0.9167	0.9198	0.9229	0.9260	0.9289
-247.75					0.9035	0.9071	0.9106	0.9140	0.9173	0.9205	0.9236	0.9267	0.9296
3.574					0.06395	0.06421	0.06446	0.06470	0.06493	0.06516	0.06538	0.06559	0.06580

1. TEMPERATURE, K 2. TEMPERATURE, C 3. VAPOR PRESSURE, BAR	TABLE ENTRIES 1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS 2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS 3. DENSITY, KG/DM^3											
BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	3.000 3.059	4.000 4.079	5.000 5.099	6.000 6.118	7.000 7.138	8.000 8.158	9.000 9.177	10.000 10.197	11.000 11.217	12.000 12.237
25.5 -247.65 3.648					0.9003 0.9009 0.06377	0.9040 0.9046 0.06403	0.9075 0.9082 0.06428	0.9110 0.9116 0.06453	0.9143 0.9150 0.06477	0.9176 0.9182 0.06500	0.9207 0.9214 0.06522	0.9238 0.9244 0.06544	0.9268 0.9274 0.06565
25.6 -247.55 3.723					0.8977 0.8983 0.06359	0.9014 0.9021 0.06385	0.9050 0.9057 0.06411	0.9085 0.9092 0.06436	0.9120 0.9126 0.06460	0.9153 0.9159 0.06483	0.9185 0.9191 0.06506	0.9216 0.9222 0.06528	0.9246 0.9252 0.06549
25.7 -247.45 3.799					0.8950 0.8956 0.06340	0.8989 0.8995 0.06367	0.9025 0.9032 0.06393	0.9061 0.9068 0.06419	0.9096 0.9102 0.06443	0.9129 0.9136 0.06467	0.9162 0.9168 0.06490	0.9193 0.9200 0.06512	0.9224 0.9230 0.06534
25.8 -247.35 3.877					0.8923 0.8929 0.06321	0.8962 0.8968 0.06348	0.9000 0.9007 0.06375	0.9036 0.9043 0.06401	0.9072 0.9078 0.06426	0.9105 0.9112 0.06450	0.9139 0.9145 0.06473	0.9171 0.9177 0.06496	0.9202 0.9208 0.06518
25.9 -247.25 3.955					0.8896 0.8902 0.06301	0.8936 0.8942 0.06330	0.8975 0.8981 0.06357	0.9012 0.9018 0.06383	0.9047 0.9054 0.06409	0.9082 0.9088 0.06433	0.9115 0.9122 0.06457	0.9148 0.9154 0.06480	0.9180 0.9186 0.06502
26.0 -247.15 4.035						0.8909 0.8915 0.06311	0.8948 0.8954 0.06338	0.8986 0.8993 0.06366	0.9021 0.9029 0.06391	0.9058 0.9064 0.06416	0.9092 0.9098 0.06440	0.9125 0.9131 0.06464	0.9157 0.9164 0.06486
26.1 -247.05 4.115						0.8882 0.8888 0.06292	0.8922 0.8928 0.06320	0.8960 0.8966 0.06347	0.8998 0.9004 0.06374	0.9033 0.9040 0.06399	0.9068 0.9074 0.06423	0.9101 0.9108 0.06447	0.9134 0.9141 0.06470
26.2 -246.95 4.197						0.8855 0.8861 0.06272	0.8895 0.8901 0.06301	0.8934 0.8940 0.06329	0.8972 0.8979 0.06356	0.9009 0.9015 0.06381	0.9044 0.9050 0.06406	0.9078 0.9084 0.06430	0.9111 0.9118 0.06454
26.3 -246.85 4.280						0.8827 0.8833 0.06252	0.8868 0.8874 0.06282	0.8908 0.8914 0.06310	0.8946 0.8953 0.06337	0.8984 0.8990 0.06364	0.9020 0.9026 0.06389	0.9054 0.9061 0.06414	0.9088 0.9094 0.06437
26.4 -246.75 4.364						0.8797 0.8803 0.06232	0.8841 0.8847 0.06262	0.8881 0.8888 0.06291	0.8920 0.8927 0.06319	0.8958 0.8964 0.06346	0.8995 0.9001 0.06372	0.9030 0.9037 0.06397	0.9064 0.9071 0.06421
26.5 -246.65 4.449						0.8769 0.8775 0.06211	0.8812 0.8818 0.06242	0.8854 0.8861 0.06272	0.8894 0.8901 0.06300	0.8933 0.8939 0.06328	0.8970 0.8977 0.06354	0.9006 0.9012 0.06380	0.9041 0.9047 0.06404
26.6 -246.55 4.535						0.8740 0.8746 0.06191	0.8784 0.8790 0.06222	0.8827 0.8833 0.06253	0.8868 0.8874 0.06282	0.8907 0.8913 0.06309	0.8945 0.8951 0.06336	0.8981 0.8988 0.06362	0.9017 0.9023 0.06387
26.7 -246.45 4.623						0.8710 0.8716 0.06170	0.8755 0.8761 0.06202	0.8798 0.8805 0.06232	0.8841 0.8847 0.06263	0.8881 0.8887 0.06291	0.8919 0.8925 0.06318	0.8956 0.8963 0.06344	0.8993 0.8999 0.06370
26.8 -246.35 4.712						0.8679 0.8685 0.06148	0.8726 0.8732 0.06181	0.8770 0.8777 0.06213	0.8813 0.8819 0.06243	0.8854 0.8861 0.06272	0.8893 0.8900 0.06300	0.8931 0.8937 0.06326	0.8968 0.8974 0.06353
26.9 -246.25 4.801						0.8649 0.8655 0.06126	0.8697 0.8703 0.06161	0.8742 0.8748 0.06193	0.8785 0.8791 0.06223	0.8828 0.8834 0.06253	0.8867 0.8874 0.06281	0.8906 0.8912 0.06309	0.8943 0.8949 0.06335
27.0 -246.15 4.892						0.8618 0.8624 0.06104	0.8666 0.8672 0.06139	0.8713 0.8719 0.06172	0.8757 0.8763 0.06203	0.8800 0.8806 0.06233	0.8841 0.8847 0.06263	0.8880 0.8886 0.06290	0.8918 0.8924 0.06317
27.1 -246.05 4.985						0.8586 0.8592 0.06082	0.8636 0.8642 0.06117	0.8684 0.8690 0.06151	0.8729 0.8735 0.06183	0.8772 0.8778 0.06214	0.8814 0.8820 0.06243	0.8854 0.8860 0.06272	0.8893 0.8899 0.06299
27.2 -245.95 5.078							0.8605 0.8611 0.06095	0.8653 0.8659 0.06130	0.8700 0.8706 0.06163	0.8744 0.8750 0.06194	0.8787 0.8793 0.06224	0.8828 0.8834 0.06253	0.8867 0.8873 0.06281
27.3 -245.85 5.173							0.8573 0.8579 0.06073	0.8623 0.8629 0.06108	0.8670 0.8676 0.06142	0.8716 0.8722 0.06174	0.8759 0.8765 0.06205	0.8801 0.8807 0.06234	0.8841 0.8847 0.06263
27.4 -245.75 5.269							0.8541 0.8547 0.06050	0.8592 0.8598 0.06086	0.8641 0.8647 0.06121	0.8687 0.8693 0.06154	0.8731 0.8738 0.06185	0.8774 0.8780 0.06215	0.8814 0.8821 0.06244

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	3.000 3.059	4.000 4.079	5.000 5.099	6.000 6.118	7.000 7.138	8.000 8.158	9.000 9.177	10.000 10.197	11.000 11.217	12.000 12.237
27.5							0.8507	0.8561	0.8610	0.8658	0.8703	0.8746	0.8788
-245.65							0.8513	0.8567	0.8617	0.8664	0.8709	0.8753	0.8794
5.366							0.06026	0.06064	0.06099	0.06133	0.06165	0.06196	0.06225
27.6							0.8473	0.8527	0.8580	0.8628	0.8674	0.8719	0.8761
-245.55							0.8479	0.8533	0.8586	0.8634	0.8680	0.8725	0.8767
5.464							0.06002	0.06040	0.06078	0.06112	0.06144	0.06176	0.06206
27.7							0.8439	0.8495	0.8548	0.8598	0.8645	0.8691	0.8734
-245.45							0.8445	0.8501	0.8555	0.8604	0.8651	0.8697	0.8740
5.564							0.05978	0.06017	0.06055	0.06090	0.06124	0.06156	0.06187
27.8							0.8404	0.8462	0.8515	0.8567	0.8616	0.8662	0.8706
-245.35							0.8410	0.8468	0.8522	0.8574	0.8622	0.8668	0.8712
5.665							0.05953	0.05994	0.06032	0.06069	0.06103	0.06136	0.06167
27.9							0.8368	0.8428	0.8483	0.8535	0.8586	0.8633	0.8678
-245.25							0.8374	0.8434	0.8489	0.8541	0.8592	0.8639	0.8684
5.767							0.05928	0.05970	0.06009	0.06046	0.06082	0.06115	0.06147
28.0							0.8332	0.8393	0.8450	0.8504	0.8555	0.8604	0.8650
-245.15							0.8338	0.8399	0.8456	0.8510	0.8561	0.8610	0.8656
5.871							0.05902	0.05945	0.05986	0.06024	0.06060	0.06094	0.06127
28.1							0.8295	0.8358	0.8417	0.8472	0.8524	0.8574	0.8621
-245.05							0.8301	0.8364	0.8423	0.8478	0.8530	0.8580	0.8627
5.976							0.05876	0.05920	0.05962	0.06001	0.06038	0.06073	0.06107
28.2								0.8322	0.8382	0.8439	0.8492	0.8544	0.8592
-244.95								0.8328	0.8388	0.8445	0.8499	0.8550	0.8598
6.082								0.05895	0.05938	0.05978	0.06016	0.06052	0.06086
28.3								0.8285	0.8347	0.8406	0.8461	0.8512	0.8562
-244.85								0.8291	0.8353	0.8412	0.8467	0.8518	0.8568
6.189								0.05869	0.05913	0.05954	0.05993	0.06030	0.06065
28.4								0.8246	0.8312	0.8372	0.8428	0.8481	0.8532
-244.75								0.8252	0.8318	0.8378	0.8434	0.8487	0.8538
6.298								0.05841	0.05888	0.05930	0.05970	0.06008	0.06043
28.5								0.8208	0.8275	0.8337	0.8395	0.8450	0.8501
-244.65								0.8214	0.8281	0.8343	0.8401	0.8456	0.8507
6.408								0.05814	0.05862	0.05906	0.05947	0.05985	0.06022
28.6								0.8169	0.8237	0.8302	0.8361	0.8417	0.8470
-244.55								0.8174	0.8243	0.8308	0.8367	0.8423	0.8476
6.519								0.05786	0.05835	0.05881	0.05923	0.05963	0.06000
28.7								0.8128	0.8199	0.8266	0.8327	0.8384	0.8439
-244.45								0.8134	0.8205	0.8272	0.8333	0.8390	0.8445
6.632								0.05758	0.05808	0.05855	0.05899	0.05939	0.05978
28.8								0.8086	0.8160	0.8228	0.8292	0.8351	0.8407
-244.35								0.8092	0.8166	0.8234	0.8298	0.8357	0.8413
6.746								0.05729	0.05781	0.05829	0.05874	0.05916	0.05955
28.9								0.8043	0.8121	0.8191	0.8257	0.8317	0.8374
-244.25								0.8049	0.8126	0.8197	0.8262	0.8323	0.8380
6.861								0.05698	0.05752	0.05802	0.05849	0.05892	0.05932
29.0								0.7998	0.8079	0.8152	0.8220	0.8283	0.8341
-244.15								0.8005	0.8085	0.8158	0.8225	0.8286	0.8347
6.978								0.05666	0.05723	0.05775	0.05822	0.05867	0.05909
29.1									0.8037	0.8113	0.8183	0.8247	0.8308
-244.05									0.8043	0.8119	0.8188	0.8253	0.8313
7.096									0.05693	0.05747	0.05796	0.05842	0.05885
29.2									0.7994	0.8072	0.8145	0.8211	0.8273
-243.95									0.8000	0.8078	0.8150	0.8217	0.8279
7.216									0.05663	0.05718	0.05769	0.05816	0.05861
29.3									0.7949	0.8031	0.8106	0.8174	0.8238
-243.85									0.7954	0.8037	0.8111	0.8180	0.8244
7.337									0.05631	0.05689	0.05742	0.05790	0.05836
29.4									0.7902	0.7988	0.8066	0.8137	0.8203
-243.75									0.7908	0.7994	0.8071	0.8143	0.8208
7.459									0.05598	0.05659	0.05713	0.05764	0.05810

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KP/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	3.000 3.059	4.000 4.079	5.000 5.099	6.000 6.118	7.000 7.138	8.000 8.158	9.000 9.177	10.000 10.197	11.000 11.217	12.000 12.237
29.5 -243.65 7.583									0.7855 0.7860 0.05564	0.7944 0.7950 0.05627	0.8025 0.8031 0.05685	0.8098 0.8104 0.05737	0.8166 0.8172 0.05785
29.6 -243.55 7.709									0.7805 0.7811 0.05529	0.7899 0.7905 0.05596	0.7983 0.7989 0.05655	0.8059 0.8065 0.05709	0.8130 0.8135 0.05759
29.7 -243.45 7.836									0.7754 0.7759 0.05492	0.7852 0.7858 0.05562	0.7940 0.7946 0.05624	0.8019 0.8025 0.05680	0.8092 0.8097 0.05732
29.8 -243.35 7.964									0.7700 0.7706 0.05454	0.7804 0.7810 0.05528	0.7896 0.7901 0.05593	0.7978 0.7984 0.05651	0.8053 0.8059 0.05704
29.9 -243.25 8.094										0.7754 0.7760 0.05493	0.7850 0.7856 0.05561	0.7936 0.7941 0.05621	0.8014 0.8019 0.05676
30.0 -243.15 8.225										0.7702 0.7708 0.05456	0.7803 0.7809 0.05528	0.7892 0.7898 0.05591	0.7973 0.7979 0.05648
30.1 -243.05 8.358										0.7649 0.7655 0.05418	0.7755 0.7760 0.05493	0.7848 0.7853 0.05559	0.7932 0.7937 0.05619
30.2 -242.95 8.493										0.7593 0.7598 0.05378	0.7704 0.7710 0.05457	0.7802 0.7806 0.05527	0.7889 0.7895 0.05588
30.3 -242.85 8.629										0.7536 0.7541 0.05338	0.7653 0.7658 0.05421	0.7755 0.7760 0.05493	0.7846 0.7851 0.05556
30.4 -242.75 8.766										0.7474 0.7479 0.05294	0.7598 0.7604 0.05382	0.7706 0.7711 0.05459	0.7801 0.7807 0.05526
30.5 -242.65 8.906										0.7408 0.7413 0.05248	0.7542 0.7547 0.05342	0.7656 0.7661 0.05423	0.7755 0.7760 0.05493
30.6 -242.55 9.047											0.7484 0.7490 0.05302	0.7604 0.7609 0.05386	0.7708 0.7713 0.05460
30.7 -242.45 9.189											0.7422 0.7427 0.05257	0.7549 0.7555 0.05348	0.7659 0.7664 0.05425
30.8 -242.35 9.333											0.7358 0.7363 0.05212	0.7494 0.7499 0.05308	0.7608 0.7614 0.05389
30.9 -242.25 9.479											0.7288 0.7293 0.05163	0.7435 0.7440 0.05266	0.7556 0.7561 0.05352
31.0 -242.15 9.627											0.7215 0.7220 0.05111	0.7373 0.7375 0.05223	0.7502 0.7508 0.05314
31.1 -242.05 9.776											0.7135 0.7140 0.05054	0.7308 0.7313 0.05177	0.7446 0.7451 0.05274
31.2 -241.95 9.927											0.7053 0.7058 0.04996	0.7240 0.7245 0.05126	0.7387 0.7393 0.05233
31.3 -241.85 10.079												0.7166 0.7171 0.05076	0.7326 0.7331 0.05189
31.4 -241.75 10.234												0.7091 0.7096 0.05023	0.7261 0.7266 0.05143

TABLE 16 - CONTINUED DENSITY OF COMPRESSED LIQUID HYDROGEN - CONTINUED

1. TEMPERATURE, K
2. TEMPERATURE, C
3. VAPOR PRESSURE, BAR

TABLE ENTRIES

1. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 1 BAR, DIMENSIONLESS
2. DENSITY RATIO, LIQUID DENSITY/DENSITY AT A BOILING PRESSURE OF 760 TORR, DIMENSIONLESS
3. DENSITY, KG/DM^3

BAR KF/CM^2	0.800 0.816	1.000 1.020	2.000 2.039	3.000 3.059	4.000 4.079	5.000 5.099	6.000 6.118	7.000 7.138	8.000 8.158	9.000 9.177	10.000 10.197	11.000 11.217	12.000 12.237
31.5 -241.65 10.390												0.7007 0.7012 0.04963	0.7193 0.7198 0.05095
31.6 -241.55 10.548												0.6916 0.6921 0.04899	0.7121 0.7126 0.05044
31.7 -241.45 10.707												0.6826 0.6821 0.04828	0.7046 0.7051 0.04991
31.8 -241.35 10.869												0.6700 0.6705 0.04746	0.6965 0.6970 0.04934
31.9 -241.25 11.032													0.6875 0.6880 0.04870
32.0 -241.15 11.198													0.6779 0.6784 0.04802

10. REFERENCES

Beattie, James A., "The Thermodynamic Temperature of the Ice Point," Temperature, Its Measurement and Control in Science and Industry, (Reinhold Pub. Corp., New York, N. Y., 1941) pp. 78-88.

Compressed Gas Association, Standard Density Data Atmospheric Gases and Hydrogen, Pamphlet P-6, first ed., Compressed Gas Association, Inc., New York, N. Y. (1965).

Cragoe, C. S., "Slopes of the PV Isotherms of Some Thermometric Gases at Pressures Below Two Atmospheres," Temperature, Its Measurement and Control in Science and Industry, (Reinhold Pub. Corp., New York, N. Y., 1941) pp. 89-126.

Dean, J. W., "A Tabulation of the Thermodynamic Properties of Normal Hydrogen from Low Temperatures to 300°K and from 1 to 100 Atmospheres," Nat. Bur. Stand. (U.S.), Tech. Note 120 (1961).

Gosman, A. L., McCarty, R. D., and Hust, J. G., "Thermodynamic Properties of Argon from the Triple Point to 300 K at Pressures to 1000 Atmospheres," Nat. Stand. Ref. Data Ser., Nat. Bur. Stand. (U.S.), 27, 146 pages (March 1969).

Hilsenrath, Joseph, et al., "Tables of Thermal Properties of Gases, Comprising Tables of Thermodynamic and Transport Properties of Air, Argon, Carbon Dioxide, Carbon Monoxide, Hydrogen, Nitrogen, Oxygen, and Steam," Nat. Bur. Stand. (U.S.), Circ. 564, (U. S. Government Printing Office, Washington, D. C.) (Nov. 1955).

IUPAC Revises Atomic Weight Values, Chem. Engr. News 39, 42-43 (Nov. 20, 1961).

McCarty, R. D., and Weber, L. A., "Thermophysical Properties of Oxygen from the Freezing Liquid Line to 600 R for Pressures to 5000 Psia," Nat. Bur. Stand. (U.S.), Tech. Note 384, 189 pages (July 1971).

McCarty, R. D., and Weber, L. A., "Thermophysical Properties of Parahydrogen from the Freezing Liquid Line to 5000 R for Pressures to 10,000 Psia," Nat. Bur. Stand. (U.S.), Tech. Note 617, 169 pages (April 1972).

Mechtly, E. A., "The International System of Units," NASA Spec. Pub. 7012, revised (1969).

Michels, A., DeGraaff, W., Wassenaar, T., Levelt, J. M. H., and Louwerse, P., "Compressibility Isotherms of Hydrogen and Deuterium at Temperatures Between -175°C and +150°C (at Densities up to 960 Amagat)," Physica 25, 25-51 (1959).

Michels, A., Schamp, H. W., DeGraaff, W., "Compressibility Isotherms of Oxygen at 0°, 25°C and 50°C and at Pressures up to 135 Atmospheres," Physica 20, 1209-14 (1954).

Roder, H. M., Diller, D. E., Weber, L. A., and Goodwin, R. D., "The Orthobaric Densities of Parahydrogen, Derived Heats of Vaporization, and Critical Constants," Cryogenics 3, 16-22 (1963).

Roder, H. M., McCarty, R. D., and Johnson, V. J., "Saturated Liquid Densities of Oxygen, Nitrogen, Argon, and Parahydrogen," Nat. Bur. Stand. (U.S.), Tech. Note 361, 67 pages (Jan. 1968).

Roder, H. M., McCarty, R. D., and Johnson, V. J., "Liquid Densities of Oxygen, Nitrogen, Argon, and Parahydrogen," Nat. Bur. Stand. (U.S.), Tech. Note 361 (Revised), 181 pages (October 1972).

Roder, H. M., Weber, L. A., and Goodwin, R. D., "Thermodynamic and Related Properties of Parahydrogen From the Triple Point to 100°K at Pressures to 340 Atmospheres," Nat. Bur. Stand. (U.S.), Monogr. 94 (U. S. Government Printing Office, Washington, D. C.) (1965).

Strobridge, T. R., "The Thermodynamic Properties of Nitrogen from 64 to 200 Atmospheres," Nat. Bur. Stand. (U.S.), Tech. Note 129 (Jan. 1962); and Strobridge, T. R., "The Thermodynamic Properties of Nitrogen from 114 to 540°R between 1.0 and 3000 PSIA, Supplement A (British Units)," Nat. Bur. Stand. (U.S.), Tech. Note 129A (Feb. 1963).

Weber, L. A., "P-V-T, Thermodynamic and Related Properties of Oxygen from the Triple Point to 300 K at Pressures to 33 MN/m^2," J. Res. Nat. Bur. Stand. (U.S.), 74A, (Phys. and Chem.), No. 1, 93-129 (Jan.-Feb. 1970).

Weber, L. A., Diller, D. E., Roder, H. M., and Goodwin, R. D., "The Vapour Pressure of 20°K Equilibrium Hydrogen," Cryogenics 2, 236-8 (1962).

Woolley, Harold W., Scott, Russell B., and Brickwedde, F. G., "Compilation of Thermal Properties of Hydrogen in Its Various Isotopic and Ortho-Para Modifications," J. Res. Nat. Bur. Stand. (U.S.) 41, 379-475 (Nov. 1948).

APPENDIX

Units and Conversions

The calculations for all fluids were performed with equations whose units were atmospheres, Kelvin, and molar volumes. The various units presented in the tables involved the following conversion factors (IUPAC 1961 and Mechtly 1969):

Molecular Weight		Conversion Factors	
Parahydrogen	2.01594	1 atm	= 1.01325 bar
Oxygen	31.9988	760 torr	= 1.01325 bar
Nitrogen	28.016	1 atm	= 1.033227453 kp/cm^2
Argon	39.948	1 kp/cm^2	= 1 kgf/cm^2
		1 kg/dm^3	= 1 kg/litre
		°C	= K - 273.15

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