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(c) Except as provided in paragraph (b) of this section, if anywhere on the container of any aerosol coating product subject to the limits in Table 1 of this subpart, or on any sticker or label affixed to such product, or in any sales or advertising literature, the manufacturer, importer or distributor of the product makes any representation that the product may be used as, or is suitable for use as a product for which a lower limit is specified, then the lowest applicable limit will apply.

§ 59.505 How do I demonstrate compliance with the reactivity limits?

(a) To demonstrate compliance with the PWR limits presented in Table 1 of this subpart, you must calculate the PWR for each coating as described in paragraphs (a)(1) through (2) of this section:

(1) Calculate the weighted reactivity factor (WRF) for each propellant and coating component using Equation 1:

$$WRF_i = RF_i \times WF_i \qquad \text{Equation 1}$$

Where:

WRF_i = weighted reactivity factor of component i, g O_3/g component i.
RF_i = reactivity factor of component i, g O_3/g component i, from Table 2A, 2B, or 2C.
WF_i = weight fraction of component i in the product,

(2) Calculate the PWR of each product using Equation 2:

$$PWR_p = (WRF)_1 + (WRF)_2 + \ldots + (WRF)_n \qquad \text{Equation 2}$$

Where:

PWR_p = PWR for product P, g O_3/g product.
WRF_1 = weighted reactivity factor for component 1, g O_3/g component.
WRF_2 = weighted reactivity factor for component 2, g O_3/g component.
WRF_n = weighted reactivity factor for component n, g O_3/g component.

(b) In calculating the PWR, you must follow the guidelines in paragraphs (b)(1) through (b)(4) of this section.

(1) Any ingredient which does not contain carbon is assigned a RF value of 0.

(2) Any aerosol coating solid, including but not limited to resins, pigments, fillers, plasticizers, and extenders is assigned a RF of 0. These items do not have to be identified individually in the calculation.

(3) All individual compounds present in the coating in an amount equal to or exceeding 0.1 percent will be considered ingredients regardless of whether or not the ingredient is reported to the manufacturer.

(4) All individual compounds present in the coating in an amount less than 0.1 percent will be assigned an RF value of 0.

(5) Any component that is a VOC but is not listed in Table 2A, 2B, or 2C of this subpart is assigned an RF value as detailed in paragraph (e) of this section.

(c) You may use either formulation data (including information for both the liquid and propellant phases), California Air Resources Board Method 310—Determination of Volatile Organic Compounds (VOC) in Consumer Products and Reactive Organic Compounds in Aerosol Coating Products (May 5, 2005) (incorporated by reference in 59.515), or EPA's Method 311—Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection into a Gas Chromatograph (40 CFR part 63, appendix A), to calculate the PWR. However, if there are inconsistencies between the formulation data and the California Air Resources Board Method 310 (May 5, 2005) (incorporated by reference in 59.515), or EPA Method 311—Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection into a Gas Chromatograph (40 CFR part 63, appendix A) results, the California Air Resources Board Method 310 (May 5, 2005) (incorporated by reference in 59.515), or EPA Method 311—Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection into a Gas Chromatograph (40 CFR part 63, appendix A) results will govern.

(d) If you manufacture a coating containing either an aromatic or aliphatic hydrocarbon solvent mixture, you must use the appropriate RF for that mixture provided in Table 2B or 2C of this subpart when calculating the PWR using formulation data. However, when calculating the PWR for a coating containing these mixtures using data from California Air Resources Board Method 310 (May 5, 2005) (incorporated by reference in 59.515), or EPA Method 311—Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection into a Gas Chromatograph (40 CFR part 63, appendix A), you must identify the individual compounds that are present in the solvent mixture and use the weight fraction of those individual compounds and their RF from Table 2A of this subpart in the calculation.

(e) If a VOC is used in a product but not listed in Table 2A of this subpart, the Reactivity Factor (RF) is assigned according to paragraphs (e)(1), (e)(2), (e)(3) or (e)(4) of this section.

(1) If the VOC is not listed in Table 2A of this subpart, but has an RF greater than 0.3, the regulated entity may petition EPA to add the VOC to Table 2A, as described in §59.511(j). Based on these petitions, EPA will periodically update the appropriate table. Once an RF for a VOC is listed on the appropriate table, that RF will be used for that VOC for the purposes of this rule. As provided in §59.511(j), any petitions submitted to EPA on or before June 1, 2008, will be considered, and if appropriate, incorporated into Table 2A on or before January 1, 2009.

(2) If the VOC is used in a product but not listed in Table 2A of this regulation, and has an RF less than or equal to 0.3, and will be used at a level greater than or equal to 7.3 weight percent (g of compound/g product) in any of the regulated entity's formulations, the regulated entity may petition EPA as described in §59.511(j). Based on these petitions, EPA will periodically update the appropriate table. Once an RF for a VOC is listed on the appropriate table, that RF will be used for that VOC for the purposes of this rule. As provided in §59.511(j), any petition submitted to EPA on or before June 1, 2008 will be considered, and if appropriate, incorporated into Table 2A on or before January 1, 2009.

(3) If a compound has an RF less than or equal to 0.3, and will not be used at a level greater than or equal to 7.3 weight percent (g of compound/g product) in any of the regulated entity's formulations, the RF to be used in all calculations by that entity for this subpart is 0.

(4) Except as provided in paragraph (e)(1), (e)(2) and (e)(3) of this section, if a VOC is not listed in Table 2A of this subpart, it is assigned a default RF factor of 22.04 g O3/g VOC. As described in §59.511(j), regulated entities may petition the Administrator to add a compound or mixture to Table 2A, 2B, or 2C of this subpart.

(f) In calculating the PWR value for a coating containing an aromatic hydrocarbon solvent with a boiling range different from the ranges specified in Table 2C of this subpart, you must assign an RF as described in paragraphs (f)(1) and (f)(2) of this section:

(1) If the solvent boiling point is lower than or equal to 420 degrees F, then you must use the RF in Table 2C of this subpart specified for bin 23;

(2) If the solvent boiling point is higher than 420 degrees F, then you must use the RF specified in Table 2C of this subpart for bin 24.

(g) For purposes of compliance with the PWR limits, all compounds listed in Tables 2A, 2B, or 2C that are used in the aerosol coating products must be included in the calculation. This includes compounds that may otherwise be exempted from the definition of VOC in §59.100(s).

§59.506 How do I demonstrate compliance if I manufacture multi-component kits?

(a) If you manufacture multi-component kits as defined in §59.503, then the Kit PWR must not exceed the Total Reactivity Limit.

(b) You must calculate the Kit PWR and the Total Reactivity Limit as follows:

(1) KIT PWR = $(PWR_{(1)} \times W_1) + (PWR_{(2)} \times W_2) + \ldots + (PWR_{(n)} \times W_n)$

(2) Total Reactivity Limit = $(RL_1 \times W_1) + (RL_2 \times W_2) + \ldots + (RL_n \times W_n)$.

(3) Kit PWR ≤ Total Reactivity Limit.