

Board Administration and Regulatory Coordination Unit

Division 3. Air Resources Board

Chapter 1. Air Resources Board

Subchapter 8.5 Consumer Products

Article 3. Aerosol Coating Products

§ 94522. Limits and Requirements for Aerosol Coating Products.

(a)(1) Compliance with Limits. Aerosol coating products manufactured beginning June 1, 2002, for the general coating categories and beginning January 1, 2003, for the specialty coating categories shall comply with the reactivity requirements specified in 94522(a)(3). Aerosol coating products manufactured before the effective dates of the reactivity limits specified in section 94522(a)(3) shall comply with the VOC requirements specified in section 94522(a)(2), except for products that are labeled by the manufacturer with the applicable reactivity limit, as provided in section 94524(b)(1)(B). If an aerosol coating product is so labeled, then the product shall comply with the reactivity requirements specified in section 94522(a)(3), regardless of the date on which the product was manufactured.

(a)(2) VOC Limits for Aerosol Coating Products. Except as provided in sections 94522(a)(1), 94523 (Exemptions), 94525 (Variances), 94540 through 94555 (Alternative Control Plan), and 94567(a)(1) (Hairspray Credit Program), Title 17, California Code of Regulations, no person shall sell, supply, offer for sale, apply, or manufacture for use in California, any aerosol coating product which, at the time of sale, use, or manufacture, contains volatile organic compounds in excess of the limits specified in the following Table of Standards after the specified effective dates.

**Table of Standards
Percent Volatile Organic Compounds by Weight¹**

<i>Aerosol Coating Category</i>	<i>1/8/96</i>
General Coatings	
Clear Coatings	67.0
Flat Paint Products	60.0
Fluorescent Coatings	75.0
Metallic Coatings	80.0
Nonflat Paint Products	65.0
Primers	60.0
Specialty Coatings	
Art Fixatives or Sealants	95.0
Auto Body Primers	80.0
Automotive Bumper and Trim Products	95.0
Aviation or Marine Primers	80.0
Aviation Propeller Coatings	84.0
Corrosion Resistant Brass, Bronze, or Copper Coatings	92.0
Exact Match Finishes:	
Engine Enamel	80.0
Automotive	88.0
Industrial	88.0
Floral Sprays	95.0
Glass Coatings	95.0
Ground Traffic/Marking Coatings	66.0
High Temperature Coatings	80.0
Hobby/Model/Craft Coatings:	
Enamel	80.0
Lacquer	88.0
Clear or Metallic	95.0
Marine Spar Varnishes	85.0

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Table of Standards
Percent Volatile Organic Compounds by Weight[†]

<i>Aerosol Coating Category</i>	<i>1/8/96</i>
Photograph Coatings	95.0
Pleasure Craft Finish Primers, Surfacers or Undercoaters	75.0
Pleasure Craft Topcoats	80.0
Shellac Sealers:	
Clear	88.0
Pigmented	75.0
Slip-Resistant Coatings	80.0
Spatter/Multicolor Coatings	80.0
Vinyl/Fabric/Leather/Polycarbonate Coatings	95.0
Webbing/Veil Coatings	90.0
Weld-Through Primers	75.0
Wood Stains	95.0
Wood Touch-Up, Repair or Restoration Coatings	95.0

[†] As specified in section 94522(c), for aerosol coating products containing methylene chloride, the VOC standards specified in this subsection (a)(2) shall apply to the combined percent VOC and methylene chloride by weight.

(a)(3) Reactivity Limits for Aerosol Coating Products.

(A) Except as provided in sections 94522(a)(1), 94523 (Exemptions) and 94525 (Variances), Title 17, California Code of Regulations, no person shall sell, supply, offer for sale, apply, or manufacture for use in California, any aerosol coating product which, at the time of sale, use, or manufacture, contains reactive organic compounds that have a PWMIR in excess of the limits specified in the following Table of Limits after the specified effective date.

Table of Limits
Product-Weighted MIR in Grams Ozone per Gram Product
(g O₃ / g product)

Aerosol Coating Category	
General Coatings	06/01/2002
Clear Coatings	1.50
Flat Paint Products	1.20
Fluorescent Coatings	1.75
Metallic Coatings	1.90
Nonflat Paint Products	1.40
Primers	1.20
Specialty Coatings	01/01/2003
Art Fixatives or Sealants	1.80
Auto Body Primers	1.55
Automotive Bumper and Trim Products	1.75
Aviation or Marine Primers	2.00
Aviation Propeller Coatings	2.50

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**Table of Limits
Product-Weighted MIR in Grams Ozone per Gram Product
(g O₃ / g product) (continued)**

Corrosion Resistant Brass, Bronze, or Copper Coatings	1.80
Exact Match Finishes:	
Engine Enamel	1.70
Automotive	1.50
Industrial	2.05
Floral Sprays	1.70
Glass Coatings	1.40
Ground Traffic/Marking Coatings	1.20
High Temperature Coatings	1.85
Hobby/Model/Craft Coatings:	
Enamel	1.45
Lacquer	2.70
Clear or Metallic	1.60
Marine Spar Varnishes	0.90
Photograph Coatings	1.00
Pleasure Craft Finish Primers, Surfacers or Undercoaters	1.05
Pleasure Craft Topcoats	0.60
Polyolefin Adhesion Promoters	2.50
Shellac Sealers:	
Clear	1.00
Pigmented	0.95
Slip-Resistant Coatings	2.45
Spatter/Multicolor Coatings	1.05
Vinyl/Fabric/Leather/Polycarbonate Coatings	1.55
Webbing/Veil Coatings	0.85
Weld-Through Primers	1.00
Wood Stains	1.40
Wood Touch-Up, Repair or Restoration Coatings	1.50

(a)(4) If an aerosol coating product is subject to both a general coating limit and a specialty coating limit, as listed in section 94522(a)(2) or (a)(3), and the product meets all the criteria of the applicable specialty coating category as defined in section 94521, then the specialty coating limit shall apply instead of the general coating limit.

(a)(5) Notwithstanding the provisions of sections 94522(a)(4) or 94524(a), high-temperature coatings that contain at least 0.5 percent by weight of an elemental metallic pigment in the formulation, including propellant, shall be subject to the limit specified for metallic coatings.

(a)(6) The Alternative Control Plan Regulation (sections 94540-94555) may not be used for aerosol coating products subject to the reactivity limits specified in section 94522(a)(3).

(b) Sell-Through of Products Subject to the VOC Limits Specified in Section 94522(a)(2).

Notwithstanding the provisions of section 94522(a)(1) and (a)(3), an aerosol coating product manufactured prior to each of the effective dates specified for that product in section 94522(a)(3) may be sold, supplied, offered for sale, or applied for up to three years after each of the specified effective dates, provided that the product complies with the limit specified in section 94522(a)(2). This subsection (b)

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does not apply to any product which does not display on the product container or package the date on which the product was manufactured, or a code indicating such date.

(c) Products Containing Methylene Chloride or Trichloroethylene.

(1) Requirements for Products Subject to the VOC Limits Specified in Section 94522(a)(2).

For any aerosol coating product containing methylene chloride, the VOC standards specified in section 94522(a)(2) shall apply to the combined percent by weight of both volatile organic compounds, and methylene chloride, calculated as follows:

(Percent by weight VOC + Percent by weight methylene chloride) must be less than or equal to the applicable VOC standard

(2) Requirements for Products Subject to the Reactivity Limits Specified in Section 94522(a)(3).

(A) For any aerosol coating product subject to the reactivity limits specified in section 94522(a)(3), no person shall sell, supply, offer for sale, apply, or manufacture for use in California any aerosol coating product which contains methylene chloride or trichloroethylene.

(B) The requirements of section 94522(c)(2) shall not apply to any aerosol coating product containing methylene chloride or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight of the product.

(d) Products Containing Perchloroethylene or Ozone Depleting Substances.

(1) Requirements for Products Subject to the VOC Limits Specified in Section 94522(a)(2).

For any aerosol coating product subject to the VOC limits specified in section 94522(a)(2), no person shall sell, supply, offer for sale, apply, or manufacture for use in California any aerosol coating product which contains perchloroethylene, or an ozone depleting substance identified by the United States Environmental Protection Agency in the Code of Federal Regulations, 40 CFR Part 82, Subpart A, under Appendices A and B, July 1, 1998. The requirements of this section 94522(d)(1) shall not apply to (A) any existing product formulation that complies with the Table of Standards and was sold in California during calendar year 1992, or (B) any product formulation that was sold in California during calendar year 1992 that is reformulated to meet the Table of Standards, as long as the content of perchloroethylene, or ozone depleting substances, as identified in this section 94522(d), in the reformulated product does not increase.

(2) Requirements for Products Subject to the Reactivity Limits Specified in Section 94522(a)(3).

(A) Perchloroethylene

For any aerosol coating product subject to the reactivity limits specified in section 94522(a)(3), no person shall sell, supply, offer for sale, apply, or manufacture for use in California any aerosol coating product which contains perchloroethylene.

(B) Ozone Depleting Substances

For any aerosol coating product subject to the reactivity limits specified in section 94522(a)(3), no person shall sell, supply, offer for sale, apply, or manufacture for use in California any aerosol coating product which contains an ozone depleting substance identified by the United States Environmental Protection Agency in the Code of Federal Regulations, 40 CFR Part 82, Subpart A, under Appendices A and B, July 1, 1998. The requirements of this section 94522(d)(2) shall not apply to (1.) any existing product formulation containing an ozone depleting substance that complies with the Table of Limits and was sold in California during calendar year 1997, or (2.) any product formulation containing an ozone depleting substance that was sold in California during calendar year 1997 that is reformulated to meet the Table of Limits, as long as the content of ozone depleting substances, as identified in this section 94522(d)(2), in the reformulated product does not increase.

(3) The requirements of section 94522(d)(1) and (d)(2) shall not apply to any aerosol coating product containing perchloroethylene, or an ozone depleting substance as identified in section 94522(d)(1) or (d)(2), that are present as impurities in a combined amount equal to or less than 0.01% by weight of the product.

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(e) Multicomponent Kits.

(1) Requirements for Products Subject to the VOC Limits Specified in Section 94522(a)(2).

No person shall sell, supply, offer for sale, apply, or manufacture for use in California any multi-component kit, as defined in section 94521, in which the total weight of VOC and methylene chloride contained in the multi-component kit $(\text{Total VOC} + \text{MC})_{\text{actual}}$ is greater than the total weight of VOC and methylene chloride that would be allowed in the multi-component kit if each component product in the kit had separately met the applicable VOC standards $(\text{Total VOC} + \text{MC})_{\text{standard}}$ as calculated below:

$$(\text{Total VOC} + \text{MC})_{\text{actual}} = (\text{VOC}_1 \times W_1) + (\text{MC}_1 \times W_1) + (\text{VOC}_2 \times W_2) + (\text{MC}_2 \times W_2) + (\text{VOC}_n \times W_n) + (\text{MC}_n \times W_n)$$

$$(\text{Total VOC} + \text{MC})_{\text{standard}} = (\text{STD}_1 \times W_1) + (\text{STD}_2 \times W_2) + (\text{STD}_n \times W_n)$$

Where:

VOC = the percent by weight VOC of the component product

MC = the percent by weight methylene chloride of the component product

STD = the VOC standard specified in section 94522(a) which applies to the component product.

W = the weight of the product contents (excluding container)

Subscript 1 denotes the first component product in the kit

Subscript 2 denotes the second component product in the kit

Subscript n denotes any additional component product

(2) Requirements for Products Subject to the Reactivity Limits Specified in Section 94522(a)(3).

No person shall sell, supply, offer for sale, apply, or manufacture for use in California any multi-component kit, as defined in section 94521, in which the Kit PWMIR is greater than the Total Reactivity Limit. The Total Reactivity Limit represents the limit that would be allowed in the multi-component kit if each component product in the kit had separately met the applicable Reactivity Limit. The Kit PWMIR and Total Reactivity Limit are calculated as in equations (1), (2) and (3) below:

$$(1) \text{ Kit PWMIR} = (\text{PWMIR}_{(1)} \times W_1) + (\text{PWMIR}_{(2)} \times W_2) + \dots + (\text{PWMIR}_{(n)} \times W_n)$$

$$(2) \text{ Total Reactivity Limit} = (\text{RL}_1 \times W_1) + (\text{RL}_2 \times W_2) + \dots + (\text{RL}_n \times W_n)$$

$$(3) \text{ Kit PWMIR} \leq \text{Total Reactivity Limit}$$

Where:

W = the weight of the product contents (excluding container)

RL = the Reactivity Limit specified in section 94522(a)(3)

Subscript 1 denotes the first component product in the kit

Subscript 2 denotes the second component product in the kit

Subscript n denotes any additional component product

(f) Products Assembled by Adding Bulk Paint to Aerosol Containers of Propellant. No person shall sell, supply, offer for sale, apply, or manufacture for use in the state of California any aerosol coating product assembled by adding bulk paint to aerosol containers of propellant, unless such products comply with the VOC standards specified in section 94522(a)(2), or with the reactivity limits specified in section 94522(a)(3) for products subject to those limits.

(g) Requirements for Lacquer Aerosol Coating Products Subject to the VOC Limits Specified in Section 94522(a)(2).

(1) Notwithstanding the provisions of Section 94522(a)(2), lacquer aerosol coating products may be sold, supplied, offered for sale, applied, or manufactured for use in California with a combined VOC and methylene chloride content of up to 80 percent by weight until January 1, 1998.

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(2) On or after January 1, 1998, all lacquer aerosol coating products sold, supplied, offered for sale, applied, or manufactured for use in California shall comply with the provisions of section 94522(a)(2), except that lacquer aerosol coating products manufactured prior to January 1, 1998 may be sold, supplied, offered for sale, or applied until January 1, 2001, as long as the product displays on the product container or package the date on which the product was manufactured or a code indicating such date.

(3) This subsection (g) does not apply to: (A) any lacquer coating product not clearly labeled as such, or (B) any lacquer coating product which is sold, supplied, offered for sale, applied, or manufactured for use in the Bay Area Air Quality Management District (BAAQMD) and is subject to BAAQMD Rule 8-49, or (C) any lacquer coating product that meets the definition of "clear coating" specified in section 94521.

(h) **Assignment of Maximum Incremental Reactivity (MIR) Values.**

(1) In order to calculate the PWMIR of aerosol coating products as specified in section 94521(a)(57), the MIR values of product ingredients are assigned as follows:

(A) Any ingredient which does not contain carbon is assigned a MIR value of 0.0.

(B) Any aerosol coating solid, including but not limited to resins, pigments, fillers, plasticizers, and extenders is assigned a MIR value of 0.0.

(C) For any ROC not covered under (1)(A) and (1)(B) of this subsection (h), each ROC is assigned the MIR value set forth in Subchapter 8.6, Article 1, sections 94700 and 94701, Title 17, California Code of Regulations.

(D) Except as provided in subsection (h)(3), only ROCs listed in sections 94700 and 94701, Title 17, California Code of Regulations, can be used to comply with the reactivity limits specified in section 94522(a)(3).

(E) All individual compounds in an amount equal to or exceeding 0.1 percent shall be considered ingredients in calculating the PWMIR. Such individual compounds shall be considered ingredients whether or not they are reported by the manufacturer pursuant to section 94526(b).

(2) (A) The MIR values dated [Effective Date] shall be used to calculate the PWMIR for aerosol coating products, and these MIR values shall not be changed until June 1, 2007.

(B) If a new ROC is added to section 94700 or 94701, then the new ROC may be used in aerosol coating products, and the MIR value for the new ROC shall be used to calculate the PWMIR after the effective date of the MIR value.

(3) The MIR value for any aromatic hydrocarbon solvent with a boiling range different from the ranges specified in section 94701(b) shall be assigned as follows:

(A) if the solvent dry point is lower than or equal to 420 degrees F, the MIR value specified in section 94701(b) for bin 23 shall be used.

(B) if the solvent initial boiling point is higher than 420 degrees F, the MIR value specified in section 94701(b) for bin 24 shall be used.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

REFERENCE