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THE PROPOSED CALIFORNIA LOW EMISSIONS AND REACTIVITY (CLEAR) REGULATION FOR AEROSOL COATINGS

Adopt new Article 3.1, Aerosol Coating Products, sections 94530-94539, Title 17, California Code of Regulations, to read as follows:

SUBCHAPTER 8.5 CONSUMER PRODUCTS [note: following is new language to be added to the California Code of Regulations]

Article 3.1. Aerosol Coating Products

94530. Purpose and Applicability

(a) Purpose

The purpose of this article is to provide a voluntary alternative method for manufacturers and marketers of aerosol coating products to comply with Title 17, California Code of Regulations, sections 94520-94528, (Aerosol Coatings Regulation).

(b) Applicability

This article may be used as an alternative means to comply with the Aerosol Coatings Regulation for any person who sells, supplies, offers for sale, applies, or manufactures aerosol coating products for use in the State of California. Unless modified by this Article 3.1, all other provisions of the Aerosol Coatings Regulation, sections 94520-94528, shall apply.

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

94531. Definitions

(a) For the purposes of this article, except for the volatile organic compound (VOC) definition found in section 94521(a)(62), all other definitions set forth in section 94521 of the Aerosol Coatings Regulation and the following additional definitions shall apply:

- (1) “Absolute Maximum Incremental Reactivity” (MIR_{abs}) means the grams of ozone formed per gram (g) of ~~volatile organic compound~~ VOC emitted. The units of an absolute MIR value are g O₃/g VOC.
- (2) “Adjusted Maximum Incremental Reactivity” (MIR_{ADJ}) means the Absolute MIR value multiplied by the Uncertainty Factor as set forth in the Table of Specific MIR Values in section 94533(d). MIR_{ADJ} values are used to calculate both Product Weighted MIR (PWMIR) and CLEAR limits.

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- (3) “Base Reactive Organic Gas” (ROG) means a mixture of reactive organic gases utilized in the parameters and definition of the absolute MIR scale. The base ROG is used to represent the range of chemical compositions resulting from a variety of conditions including anthropogenic emissions occurring in the ambient air of urban areas.
- (4) “CLEAR Limit” means the maximum product weighted reactivity allowed in an aerosol coating product in a specific category expressed as g O₃/g product.
- (5) “Kinetic Reactivity” (KR) means the fraction of VOC reacting in the atmosphere.
- (6) “k_{OH}” means the reaction rate constant of the reaction of a hydroxyl (OH) radical with a VOC at ambient temperature and pressure.
- (7) “Maximum Incremental Reactivity” (MIR) means the maximum weight of ozone formed by adding a compound to the “base ROG” mixture per weight of compound added expressed to hundredths of a gram, (g O₃/g VOC). For the purposes of this article “MIR” means the absolute MIR value, unless otherwise noted.
- (8) “Mechanistic Reactivity” (MR) means the gram(s) of ozone formed per gram of VOC reacting.
- (9) “Ozone” means a reactive toxic gaseous molecule consisting of three oxygen atoms, (O₃). Ozone is a product of the photochemical processes involving sunlight and is the main ingredient in photochemical smog.
- (10) “Product-Weighted MIR” (PWMIR) means the sum of all weighted-MIR_{ADJ} for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths in grams of ozone formed per gram of product (excluding container and packaging) and calculated according to the following equations:

(a) Weighted MIR (Wtd-MIR) ingredient = MIR_{ADJ} x Weight fraction VOC,

and,

(b) Product Weighted MIR = (Wtd-MIR)₁ + (Wtd-MIR)₂ + ... + (Wtd- MIR)_N

where,

MIR_{ADJ} = ingredient MIR multiplied by the uncertainty multiplier;

Wtd-MIR = MIR_{ADJ} of each ingredient in a product multiplied by the weight fraction of that ingredient, as shown in equation (10)(a);

1,2,3...N = each ingredient in the product up to the total N ingredients in the product.

- (11) “Reactive Organic Gas” (ROG) means, for the purposes of this article, the same as the “Volatile Organic Compound” (VOC) definition set forth in section 94521(a).

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- (12) “Relative MIR” (MIR_{rel}) means the ratio of the absolute MIR to the base ROG. The MIR_{rel} value is unitless.
- (13) “Uncertainty Factor” means a numerical ranking of the uncertainty of an MIR value as set forth in section 94533(d). The Absolute MIR is multiplied by the uncertainty factor to obtain MIR_{ADJ} for a VOC.
- (14) “Upper Limit MIR” (ULMIR) means the kinetic reactivity (KR) multiplied by the mechanistic reactivity (MR) and unit conversion factors. ULMIR is calculated with the following equation:

$$ULMIR = \text{Upper Limit KR} \times \text{Upper Limit MR}$$

The units for ULMIR are g O₃/g VOC ingredient.

- (15) “Weight Fraction” means the ratio of the weight of an ingredient to the total net weight of the product, expressed to hundredths in grams of ingredient per gram of product (excluding container and packaging) and calculated according to the following equation:

$$\text{Weight Fraction} = \frac{\text{Weight of the ingredient}}{\text{Total product net weight (excluding container and packaging)}}$$

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

94532. CLEAR Limits for Aerosol Coating Products

- (a)(1) Except as specified in section 94532(a)(2),(b), (c), and (d), all of the requirements of section 94522 shall apply.
- (2) As a voluntary alternative to the VOC limits specified in section 94522, a person may sell, supply, offer for sale, or manufacture for use in California any aerosol coating product which, at the time of sale or manufacture, has a PWMIR no greater than the CLEAR Limit, specified in the following Table of CLEAR Limits:

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Table of CLEAR Limits
(VOC Limits, expressed as percent by weight of product)
(CLEAR Limits expressed as grams ozone per gram of product)

	Effective Date	
	January 1, 2002	
	VOC Limit, wt%	CLEAR Limit
General Coatings		
Clear Coatings	50.0	
Flat Paint Products	40.0	
Fluorescent Coatings	60.0	
Metallic Coatings	65.0	
Nonflat Paint Products	45.0	
Primers	40.0	
Specialty Coatings		
Art Fixatives or Sealants	60.0	
Auto Body Primers	45.0	
Automotive Bumper and Trim Products	75.0	
Aviation or Marine Primers	70.0	
Aviation Propeller Coatings	70.0	
Corrosion Resistant Brass, Bronze, or Copper Coatings	70.0	
Exact Match Finishes: Engine Enamel	50.0	
Automotive	50.0	
Industrial	70.0	
Floral Sprays	70.0	

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	Effective Date	
	January 1, 2002	
	VOC Limit, wt%	CLEAR Limit
Specialty Coatings (continued)		
Glass Coatings	65.0	
Ground Traffic/Marking Coatings	45.0	
High Temperature Coatings	60.0	
Hobby/Model/Craft Coatings:		
Enamel	70.0	
Lacquer	70.0	
Clear or Metallic	80.0	
Marine Spar Varnishes	60.0	
Photograph Coatings	70.0	
Pleasure Craft Finish Primers Surfacer or Undercoaters	55.0	
Pleasure Craft Topcoats	55.0	
Shellac Sealers:		
Clear	70.0	
Pigmented	60.0	
Slip-Resistant Coatings	60.0	
Spatter/Multicolor Coatings	55.0	
Vinyl/Fabric/Leather/Polycarbonate	70.0	
Webbing/Veil Coatings	80.0	
Weld-Through Primers	50.0	
Wood Stains	75.0	

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	Effective Date	
	January 1, 2002	
	VOC Limit, wt%	CLEAR Limit
Specialty Coatings (continued)		
Wood Touch-Up, Repair, or Restoration Coatings	90.0	

(b) Products Containing Methylene Chloride.

- (1) After the effective date of this article, for any aerosol coating product for which limits are specified in section 94532(a)(2), no person shall sell, supply, offer for sale, apply, or manufacture for use in California any aerosol coating product which contains methylene chloride. The requirements of this section 94532(b) shall not apply to (A) any existing product formulation that complies with the Table of CLEAR Limits and was sold in California during calendar year 1997, or (B) any product formulation that was sold in California during calendar year 1997 that is reformulated to meet the Table of CLEAR Limits as long as the content of methylene chloride in the reformulated product does not increase.
- (2) The requirements of section 94532(b)(1) shall not apply to any aerosol coating product containing methylene chloride that are present as impurities in a combined amount equal to or less than 0.01% by weight of the product.

(c) Multicomponent Kits Requirements for Products Formulated to meet CLEAR Limits. Any person utilizing this article, shall not 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 CLEAR term. The Total CLEAR term represents the limit that would be allowed in the multi-component kit if each component product in the kit had separately met the applicable CLEAR limit. The Kit PWMIR and Total CLEAR are calculated as in equations (1), (2) and (3) below:

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

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

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

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Where:

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

CLEAR = the CLEAR Limit specified in section 94532(a)(2)

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

- (d) **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 either the limits in section 94522(a)(1) or the CLEAR limits specified in section 94532(a)(2).

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

94533. Assignment of Maximum Incremental Reactivity (MIR) Values

For the purposes of this article, MIR values are assigned as follows:

- (a) All ingredients which do not contain carbon are assigned a MIR value of 0.0.
- (b) Except as specified in subpart (c) of this section 94533, each aerosol coating ingredient that contains at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, or carbonates, and ammonium carbonate shall be assigned the adjusted MIR value set forth in section 95433(d).
- (c) Any aerosol coating solid, including but not limited to resins, pigments, fillers, plasticizers, and extenders is assigned a MIR value of 0.0.

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All of the exemptions specified in section 94523 shall apply.

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

94535. Administrative Requirements

(a) For the purposes of this article, all of the provisions in section 94524(a), (d), and (e) shall apply. The provisions in section 94524(b) and (c) shall not apply.

(b) Labeling Requirements

(1) Both the manufacturer and responsible party for each aerosol coating product subject to this article shall ensure that all products clearly display the following information on each product container which is manufactured after the effective date of this article:

(A) the applicable CLEAR limit for the product that is specified in section 94532(a)(2);

(B) the aerosol coating category as defined in section 94521(a), or an abbreviation of the coating category; and

(C) the day, month, and year on which the product was manufactured, or a code indicating such date.

(2) The information required in section 94535(b)(1), shall be displayed on the product container such that it is readily observable without removing or disassembling any portion of the product container or packaging. For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.

(3) No person shall remove, alter, conceal, or deface the information required in section 94535(b)(1) prior to final sale of the product.

(4) For any aerosol coating product subject to section 94532(a)(2), if the manufacturer or responsible party uses a code indicating the date of manufacture or an abbreviation of the coating category as defined in section 94521(a), an explanation of the code or abbreviation must be filed with the Executive Officer prior to the use of the code or abbreviation.

(c) Reporting Requirements

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(1) Any responsible party selling products meeting the CLEAR limits in section 94532(a)(2), shall, within 60 days of offering for sale, submit to the Executive Officer of the Air Resources Board a report containing all of the following information:

~~(A) A statement indicating which products will comply with the requirements of this Article 3.1 instead of Article 3.~~

(A) The product name and the aerosol coating category of each product complying with the requirements of this Article 3.1 instead of Article 3;

(B) the complete speciation of each product complying with this article by weight percent rounded to the nearest 0.1 percent;

~~(B)~~(C) the company name, mailing address, contact person, and the telephone number of the contact person.

(2) Upon 90 days written notice, each manufacturer or responsible party subject to this article shall submit to the Executive Officer a written report with all of the following information for each product they manufacture under their name or another company's name:

(A) the brand name of the product;

(B) upon request, a copy of the product label;

(C) the owner of the trademark or brand names;

(D) the product category as defined in section 94521;

(E) the annual California sales in pounds per year and the method used to calculate California annual sales;

(F) the PWMIR and the percent by weight of all ingredients including: water, solids, each VOC ingredient, and any compounds assigned a MIR value of zero as specified in section 94533(a-c);

(G) an identification of each product brand name as a "household," "industrial," or "both" product; and

(H) any other information necessary to determine the emissions from aerosol coating products.

The information requested in this section (c)(2) may be supplied as an average for a group of aerosol coating products within the same coating category when the products do not vary in VOC content by more than two percent (by weight), and the coatings are based on the same resin type, or the products are color variations of the same product (even if the coatings vary by more than 2 percent in VOC content).

NOTE: Authority cited: section 39600, 39601, 41511, and 41712, Health and Safety Code.
Reference: sections 39002, 39600, 40000, 41511, and 41712, Health and Safety Code.

94536. Variances

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- (a) Any person who cannot comply with the requirements set forth in section 94532, because of extraordinary reasons beyond the person's reasonable control may apply in writing to the Executive Officer for a variance. The variance application shall set forth:
 - (1) the specific grounds upon which the variance is sought;
 - (2) the proposed date(s) by which compliance with the provisions of section 94532 will be achieved, and
 - (3) a compliance report reasonably detailing the method(s) by which compliance will be achieved.
- (b) Upon receipt of a variance application containing the information required in subsection (a), the Executive Officer shall hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements in section 94532 is necessary and will be permitted. A hearing shall be initiated no later than 75 working days after receipt of a variance application. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be submitted for publication in the California Regulatory Notice Register and sent to every person who requests such notice, not less than 30 days prior to the hearing. The notice shall state that the parties may, but need not be, represented by counsel at the hearing. At least 30 days prior to the hearing, the variance application shall be made available to the public for inspection. Information submitted to the Executive Officer by a variance applicant may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, sections 91000-91022. The Executive Officer may consider such confidential information in reaching a decision on a variance application. Interested members of the public shall be allowed a reasonable opportunity to testify at the hearing and their testimony shall be considered.
- (c) No variance shall be granted unless all of the following findings are made:
 - (1) that, because of reasons beyond the reasonable control of the applicant, requiring compliance with Section 94532 would result in extraordinary economic hardship.
 - (2) that the public interest in mitigating the extraordinary hardship to the applicant by issuing the variance outweighs the public interest in avoiding any increased emissions of air contaminants which would result from issuing the variance.
 - (3) that the compliance report proposed by the applicant can reasonably be implemented, and will achieve compliance as expeditiously as possible.
- (d) Any variance order shall specify a final compliance date by which the requirements of Section 94532 will be achieved. Any variance order shall contain a condition that specifies increments of progress necessary to assure timely compliance, and such other conditions that the Executive Officer, in consideration of the testimony received at the hearing, finds necessary to carry out the purposes of Division 26 of the Health and Safety Code.

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- (e) A variance shall cease to be effective upon failure of the party to whom the variance was granted to comply with any term or condition of the variance.
- (f) Upon the application of any person, the Executive Officer may review, and for good cause, modify or revoke a variance from the requirements of section 94532 after holding a public hearing in accordance with the provisions of subsection 94536(b).

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

94537. Test Methods

~~Compliance with the requirements of this article shall be determined by using the applicable test methods found in section 94526. Air Resources Board Method 310, Determination of Volatile Organic Compounds in Consumer Products, and applicable test methods found in section 94526 shall be used to determine compliance with the requirements of this article. Alternative test methods which are shown to accurately determine the product ingredients may also be used after approval in writing by the Executive Officer.~~

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

94538. Severability

Each part of this article shall be deemed severable, and in the event that any part of this article is held to be invalid, the remainder of this article shall continue in full force and effect.

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

94539. Federal Enforceability

For purposes of federal enforceability of this article, the United States Environmental Protection Agency is not subject to approval determinations made by the Executive Officer under section 94536 and 94537. Within 180 days of a request from a person who has been granted a variance under section 94536, a variance meeting the requirements of the Clean Air Act shall be submitted by the Executive Officer to the Environmental Protection Agency for inclusion in the applicable implementation plan approved or promulgated by the Environmental Protection Agency pursuant to section 110 of the Clean Air Act, 42 U.S.C., section 7410.

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