

Proposed
REGULATION FOR REDUCING THE OZONE FORMED FROM
~~VOLATILE ORGANIC COMPOUND EMISSIONS FROM AEROSOL~~
COATING PRODUCTS EMISSIONS

[Note: The proposed amendments for this rulemaking action are shown in ~~strikeout~~ to indicate proposed deletions and underline to indicate proposed additions.]

Amend Title 17, California Code of Regulations, Article 3, Aerosol Coating Products, Sections 94521-94524 and 94526, to read as follows:

SUBCHAPTER 8.5 CONSUMER PRODUCTS

Article 3. Aerosol Coating Products

94520. Applicability.

This article shall apply to any person who sells, supplies, offers for sale, applies, or manufactures aerosol coating products for use in the state of California, except as provided in section 94523.

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

94521. Definitions.

- (a) For the purposes of this article, the following definitions apply:
- (1) “Adhesive” means a product used to bond one surface to another.
 - (2) “Aerosol Coating Product” means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marketing applications.
 - (3) “Anti-Static Spray” means a product used to prevent or inhibit the accumulation of static electricity.
 - (4) “Art Fixative or Sealant” means a clear coating, including art varnish, workable art fixative, and ceramic coating, which is designed and labeled exclusively for application to paintings, pencil, chalk, or pastel drawings, ceramic art pieces, or other closely related art uses, in order to provide a final protective coating or to fix preliminary stages of artwork while providing a workable surface for subsequent revisions.

- (5) “ASTM” means the American Society for Testing and Materials.
- (6) “Auto Body Primer” means an automotive primer or primer surfacer coating designed and labeled exclusively to be applied to a vehicle body substrate for the purposes of corrosion resistance and building a repair area to a condition in which, after drying, it can be sanded to a smooth surface.
- (7) “Automotive Bumper and Trim Product” means a product, including adhesion promoters and chip sealants, designed and labeled exclusively to repair and refinish automotive bumpers and plastic trim parts.
- (8) “Automotive Underbody Coating” means a flexible coating which contains asphalt or rubber and is designed and labeled exclusively for use on the underbody of motor vehicles to resist rust, abrasion and vibration, and to deaden sound.
- (9) “Aviation Propeller Coating” means a coating designed and labeled exclusively to provide abrasion resistance and corrosion protection for aircraft propellers.
- (10) “Aviation or Marine Primer” means a coating designed and labeled exclusively to meet federal specification TT-P-1757.
- (11) “Base Reactive Organic Gas Mixture” (Base ROG Mixture) means the mixture of reactive organic gases utilized in deriving the MIR scale.
- ~~(112)~~ “Belt Dressing” means a product applied on auto fan belts, water pump belting, power transmission belting, and industrial and farm machinery belting to prevent slipping, and to extend belt life.
- ~~(1213)~~ “Cleaner” means a product designed and labeled primarily to remove soil or other contaminants from surfaces.
- ~~(1314)~~ “Clear Coating” means a coating which is colorless, containing resins but no pigments except flatting agents, and is designed and labeled to form a transparent or translucent solid film.
- ~~(1415)~~ “Coating Solids” means the nonvolatile portion of an aerosol coating product, consisting of the film forming ingredients, including pigments and resins.
- ~~(1516)~~ “Commercial Application” means the use of aerosol coating products in the production of goods, or the providing of services for profit, including touch-up and repair.
- ~~(1617)~~ “Corrosion Resistant Brass, Bronze, or Copper Coating” means a clear coating designed and labeled exclusively to prevent tarnish and corrosion of uncoated brass, bronze, or copper metal surfaces.

- (~~17~~18) “Distributor” means any person to whom an aerosol coating product is sold or supplied for the purposes of resale or distribution in commerce, except that manufacturers, retailers, and consumers are not distributors.
- (~~18~~19) “Dye” means a product containing no resins which is used to color a surface or object without building a film.
- (~~19~~20) “Electrical Coating” means a coating designed and labeled exclusively as such, which is used exclusively to coat electrical components such as wire windings on electric motors to provide insulation and protection from corrosion.
- (~~20~~21) “Enamel” means a coating which cures by chemical cross-linking of its base resin and is not resolvable in its original solvent.
- (~~21~~22) “Engine Paint” means a coating designed and labeled exclusively to coat engines and their components.
- (~~22~~23) “Exact Match Finish, Engine Paint” means a coating which meets all of the following criteria: (A) the product is designed and labeled exclusively to exactly match the color of an original, factory-applied engine paint; (B) the product is labeled with the manufacturer's name for which they were formulated; and (C) the product is labeled with one of the following: (1.) the original equipment manufacturer's (O.E.M.) color code number; (2.) the color name; or (3.) other designation identifying the specific O.E.M. color to the purchaser.
- (~~23~~24) “Exact Match Finish, Automotive” means a topcoat which meets all of the following criteria: (A) the product is designed and labeled exclusively to exactly match the color of an original, factory-applied automotive coating during the touch-up of automobile finishes; (B) the product is labeled with the manufacturer's name for which they were formulated; and (C) the product is labeled with one of the following: (1.) the original equipment manufacturer's (O.E.M.) color code number; (2.) the color name; or (3.) other designation identifying the specific O.E.M. color to the purchaser. Notwithstanding the foregoing, automotive clear coatings designed and labeled exclusively for use over automotive exact match finishes to replicate the original factory applied finish shall be considered to be automotive exact match finishes.
- (~~24~~25) “Exact Match Finish, Industrial” means a coating which meets all of the following criteria: (A) the product is designed and labeled exclusively to exactly match the color of an original, factory-applied industrial coating during the touch-up of manufactured products; (B) the product is labeled with the manufacturer's name for which they were formulated; and (C) the product is labeled with one of the following: (1.) the original equipment manufacturer's (O.E.M.) color code number; (2.) the color name; or (3.) other designation identifying the specific O.E.M. color to the purchaser.

- (~~25~~26) “Executive Officer” means the Executive Officer of the Air Resources Board, or her or his delegate.
- (~~26~~27) “Flat Paint Products” means a coating which, when fully dry, registers specular gloss less than or equal to 15 on an 85° gloss meter, or less than or equal to 5 on a 60° gloss meter, or which is labeled as a flat coating.
- (~~27~~28) “Flattening Agent” means a compound added to a coating to reduce the gloss of the coating without adding color to the coating.
- (~~28~~29) “Floral Spray” means a coating designed and labeled exclusively for use on fresh flowers, dried flowers, or other items in a floral arrangement for the purposes of coloring, preserving or protecting their appearance.
- (~~29~~30) “Fluorescent Coating” means a coating labeled as such, which converts absorbed incident light energy into emitted light of a different hue.
- (~~30~~31) “Glass Coating” means a coating designed and labeled exclusively for use on glass or other transparent material to create a soft, translucent light effect, or to create a tinted or darkened color while retaining transparency.
- (~~31~~32) “Ground Traffic/Marking Coating” means a coating designed and labeled exclusively to be applied to dirt, gravel, grass, concrete, asphalt, warehouse floors, or parking lots. Such coatings must be in a container equipped with a valve and sprayhead designed to direct the spray toward the surface when the can is held in an inverted vertical position.
- (~~32~~33) “High Temperature Coating” means a coating, excluding engine paint, which is designed and labeled exclusively for use on substrates which will, in normal use, be subjected to temperatures in excess of 400°F.
- (~~33~~34) “Hobby/Model/Craft Coating” means a coating which is designed and labeled exclusively for hobby applications and is sold in aerosol containers of 6 ounces by weight or less.
- (~~35~~) “Ingredient” means a component of an aerosol coating product.
- (~~34~~36) “Ink” means a fluid or viscous substance used in the printing industry to produce letters, symbols or illustrations, but not to coat an entire surface.
- (~~35~~37) “Lacquer” means a thermoplastic film-forming material dissolved in organic solvent, which dries primarily by solvent evaporation, and is resolvable in its original solvent.
- (~~36~~38) “Layout Fluid” (or toolmaker's ink) means a coating designed and labeled exclusively to be sprayed on metal, glass or plastic, to provide a glare-free surface on which to scribe designs, patterns or engineering guide lines prior to shaping the piece.

- (3739) “Leather preservative or cleaner” means a leather treatment material applied exclusively to clean or preserve leather.
- (3840) “Lubricant” means a substance such as oil, petroleum distillates, grease, graphite, silicone, lithium, etc. that is used to reduce friction, heat, or wear when applied between surfaces.
- (3941) “Manufacturer” means any person who imports, manufactures, assembles, produces, packages, repackages, or relabels a consumer product.
- (4042) “Marine Spar Varnish” means a coating designed and labeled exclusively to provide a protective sealant for marine wood products.
- (4143) “Maskant” means a coating applied directly to a component to protect surface areas when chemical milling, anodizing, aging, bonding, plating, etching, or performing other chemical operations on the surface of the component.
- (44) “Maximum Incremental Reactivity” (MIR) means the maximum change in 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 ROC). MIR values for individual compounds and hydrocarbon solvents are specified in sections 94700 and 94701, Title 17, California Code of Regulations.
- (4245) “Metallic Coating” means a topcoat which contains at least 0.5 percent by weight elemental metallic pigment in the formulation, including propellant, and is labeled as “metallic”, or with the name of a specific metallic finish such as “gold”, “silver”, or “bronze.”
- (4346) “Mold Release” means a coating applied to molds to prevent products from sticking to the surfaces of the mold.
- (4447) “Multi-Component Kit” means an aerosol spray paint system which requires the application of more than one component (e.g. foundation coat and top coat), where both components are sold together in one package.
- (4548) “Nonflat Paint Product” means a coating which, when fully dry, registers a specular gloss greater than 15 on an 85° gloss meter or greater than five on a 60° gloss meter.
- (49) “Ozone” means a colorless gas with a pungent odor, having the molecular form O₃.
- (4650) “Percent VOC By Weight” means the ratio of the weight of VOC to the total weight of the product contents expressed as follows:

$$\text{Percent VOC By Weight} = (W_{\text{VOC}} / W_{\text{total}}) \times 100$$

Where:

- (A) for products containing no water and no volatile compounds exempt from the definition of VOC: W_{voc} = the weight of volatile compounds;
 - (B) for products containing water or exempt compounds: W_{voc} = the weight of volatile compounds, less water, and less compounds exempt from the VOC definition in this section 94521; and
 - (C) W_{total} = the total weight of the product contents.
- (4751) “Photograph Coating” means a coating designed and labeled exclusively to be applied to finished photographs to allow corrective retouching, protection of the image, changes in gloss level, or to cover fingerprints.
- (4852) “Pleasure Craft” means privately owned vessels used for noncommercial purposes.
- (4953) “Pleasure Craft Finish Primer/Surfacer/Undercoater” means a coating designed and labeled exclusively to be applied prior to the application of a pleasure craft topcoat for the purpose of corrosion resistance and adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections.
- (5054) “Pleasure Craft Topcoat” means a coating designed and labeled exclusively to be applied to a pleasure craft as a final coat above the waterline and below the waterline when stored out of water. This category does not include clear coatings.
- (5155) “Primer” means a coating labeled as such, which is designed to be applied to a surface to provide a bond between that surface and subsequent coats.
- (56) “Product-Weighted MIR” (PWMIR) means the sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram 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 x Weight fraction ingredient,
- and,
- (b) Product Weighted MIR = (Wtd-MIR)₁ + (Wtd-MIR)₂ + ... + (Wtd- MIR)_n
- where,
- MIR ≡ ingredient MIR, as specified in section 94522(h);
- Wtd-MIR ≡ MIR of each ingredient in a product multiplied by the weight fraction of that ingredient, as shown in (a);

1,2,3,....n ≡ each ingredient in the product up to the total n ingredients in the product.

- (~~52~~57) “Propellant” means a liquefied or compressed gas that is used in whole or in part, such as a cosolvent, to expel a liquid or any other material from the same self-pressurized container or from a separate container.
- (58) “Reactivity Limit” means the maximum “product-weighted MIR” allowed in an aerosol coating product that is subject to the limits specified in section 94522(a)(3) for a specific category, expressed as g O₃/g product.
- (59) “Reactive Organic Compound (ROC)” means any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.
- (~~53~~60) “Responsible Party” means the company, firm, or establishment which is listed on the product's label. If the label lists two companies, firms or establishments, the responsible party is the party which the product was “manufactured for” or “distributed by”, as noted on the label.
- (~~54~~61) “Retailer” means any person who sells, supplies, or offers aerosol coating products for sale directly to consumers.
- (~~55~~62) “Retail Outlet” means any establishment where consumer products are sold, supplied, or offered for sale, directly to consumers.
- (~~56~~63) “Rust Converter” means a product designed and labeled exclusively to convert rust to an inert material and which contains a minimum acid content of 0.5 percent by weight, and a maximum coating solids content of 0.5 percent by weight.
- (~~57~~64) “Shellac Sealer” means a clear or pigmented coating formulated solely with the resinous secretion of the lac beetle (*Laccifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.
- (~~58~~65) “Slip-Resistant Coating” means a coating designed and labeled exclusively as such, which is formulated with synthetic grit and used as a safety coating.
- (~~59~~66) “Spatter Coating/Multicolor Coating” means a coating labeled exclusively as such wherein spots, globules, or spatters of contrasting colors appear on or within the surface of a contrasting or similar background.
- (~~60~~67) “Stain” means a coating which is designed and labeled to change the color of a surface but not conceal the surface.

- (68) “Upper-Limit Kinetic Reactivity” (ULKR) means the maximum percentage of the emitted ROC which has reacted. For this article, the ULKR is one hundred percent and is used to calculate the ULMIR.
- (69) “Upper-Limit Mechanistic Reactivity” (ULMR) means the maximum gram(s) of ozone formed per gram of reactive organic compound (ROC) reacting. The ULMR is used to calculate the ULMIR.
- (70) “Upper-Limit MIR” (ULMIR) means the upper-limit kinetic reactivity (ULKR) multiplied by the upper-limit mechanistic reactivity (ULMR), as calculated using the following equation:

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

The units for ULMIR are g O₃/g ROC.

- (~~64~~71) “Vinyl/Fabric/Leather/Polycarbonate Coating” means a coating designed and labeled exclusively to coat vinyl, fabric, leather, or polycarbonate substrates.
- (~~62~~72) “Volatile Organic Compound (VOC)” means any compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:
- (A) methane,
methylene chloride (dichloromethane),
1,1,1-trichloroethane (methyl chloroform),
trichlorofluoromethane (CFC-11),
dichlorodifluoromethane (CFC-12),
1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113),
1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114),
chloropentafluoroethane (CFC-115),
chlorodifluoromethane (HCFC-22),
1,1,1-trifluoro-2,2-dichloroethane (HCFC-123),
1,1-dichloro-1-fluoroethane (HCFC-141b),
1-chloro-1,1-difluoroethane (HCFC-142b),
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124),
trifluoromethane (HFC-23),
1,1,2,2-tetrafluoroethane (HFC-134),
1,1,1,2-tetrafluoroethane (HFC-134a),
pentafluoroethane (HFC-125),
1,1,1-trifluoroethane (HFC-143a),
1,1-difluoroethane (HFC-152a),
cyclic, branched, or linear completely methylated siloxanes,
the following classes of perfluorocarbons:
1. cyclic, branched, or linear, completely fluorinated alkanes;

2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
4. sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds to carbon and fluorine, and

(B) the following low-reactive organic compounds which have been exempted by the U.S. EPA:

acetone,
ethane,
methyl acetate,
parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene),
perchloroethylene (tetrachloroethylene).

(6373) “Webbing/Veiling Coating” means a coating designed and labeled exclusively to provide a stranded to spider webbed appearance when applied.

(74) “Weight Fraction” means the weight of an ingredient divided by the total net weight of the product, expressed to thousandths of a gram of ingredient per gram of product (excluding container and packaging). The weight fraction is calculated according to the following equation:

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

(6475) “Weld-Through Primer” means a coating designed and labeled exclusively to provide a bridging or conducting effect for corrosion protection following welding.

(6576) “Wood Stain” means a coating which is formulated to change the color of a wood surface but not conceal the surface.

(6677) “Wood Touch-Up/Repair/Restoration” means a coating designed and labeled exclusively to provide an exact color or sheen match on finished wood products.

(6778) “Working Day” means any day between Monday through Friday, inclusive, except for days that are federal holidays.

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

94522. Standards 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)(42) 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

Aerosol Coating Category	1/8/96	1/1/2002
General Coatings		
Clear Coatings	67.0	50.0
Flat Paint Products	60.0	40.0
Fluorescent Coatings	75.0	60.0
Metallic Coatings	80.0	65.0
Nonflat Paint Products	65.0	45.0
Primers	60.0	40.0
Specialty Coatings		
Art Fixatives or Sealants	95.0	60.0
Auto Body Primers	80.0	45.0
Automotive Bumper and Trim Products	95.0	75.0
Aviation or Marine Primers	80.0	70.0
Aviation Propeller Coatings	84.0	70.0
Corrosion Resistant Brass, Bronze, or Copper Coatings	92.0	70.0
Exact Match Finishes:		
Engine Enamel	80.0	50.0
Automotive	88.0	50.0
Industrial	88.0	70.0
Floral Sprays	95.0	70.0
Glass Coatings	95.0	65.0
Ground Traffic/Marking Coatings	66.0	45.0
High Temperature Coatings	80.0	60.0
Hobby/Model/Craft Coatings:		
Enamel	80.0	70.0
Lacquer	88.0	70.0
Clear or Metallic	95.0	80.0

¹ 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.

Table of Standards

Percent Volatile Organic Compounds by Weight¹

Aerosol Coating Category	1/8/96	1/1/2002
Specialty Coatings (Cont'd)		
Marine Spar Varnishes	85.0	60.0
Photograph Coatings	95.0	70.0
Pleasure Craft Finish Primers, Surfacers or Undercoaters	75.0	55.0
Pleasure Craft Topcoats	80.0	55.0
Shellac Sealers:		
Clear	88.0	70.0
Pigmented	75.0	60.0
Slip-Resistant Coatings	80.0	60.0
Spatter/Multicolor Coatings	80.0	55.0
Vinyl/Fabric/Leather/Polycarbonate Coatings	95.0	70.0
Webbing/Veil Coatings	90.0	80.0
Weld-Through Primers	75.0	50.0
Wood Stains	95.0	75.0
Wood Touch-Up, Repair or Restoration Coatings	95.0	90.0

¹ 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

<u>Clear Coatings</u>	<u>1.54</u>
<u>Flat Paint Products</u>	<u>1.21</u>
<u>Fluorescent Coatings</u>	<u>1.77</u>
<u>Metallic Coatings</u>	<u>1.93</u>
<u>Nonflat Paint Products</u>	<u>1.40</u>
<u>Primers</u>	<u>1.11</u>

Specialty Coatings

01/01/2003

<u>Art Fixatives or Sealants</u>	<u>1.80</u>
<u>Auto Body Primers</u>	<u>1.57</u>
<u>Automotive Bumper and Trim Products</u>	<u>1.75</u>
<u>Aviation or Marine Primers</u>	<u>1.98</u>
<u>Aviation Propeller Coatings</u>	<u>2.47</u>
<u>Corrosion Resistant Brass, Bronze, or Copper Coatings</u>	<u>1.78</u>
<u>Exact Match Finishes:</u>	
<u>Engine Enamel</u>	<u>1.72</u>
<u>Automotive</u>	<u>1.77</u>
<u>Industrial</u>	<u>2.07</u>
<u>Floral Sprays</u>	<u>1.68</u>
<u>Glass Coatings</u>	<u>1.42</u>
<u>Ground Traffic/Marking Coatings</u>	<u>1.18</u>
<u>High Temperature Coatings</u>	<u>1.83</u>
<u>Hobby/Model/Craft Coatings:</u>	
<u>Enamel</u>	<u>1.47</u>
<u>Lacquer</u>	<u>2.70</u>
<u>Clear or Metallic</u>	<u>1.60</u>
<u>Marine Spar Varnishes</u>	<u>0.87</u>
<u>Photograph Coatings</u>	<u>0.99</u>
<u>Pleasure Craft Finish Primers, Surfacers or Undercoaters</u>	<u>1.05</u>

Table of Limits

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

Aerosol Coating Category

Specialty Coatings (Cont'd)

01/01/2003

<u>Pleasure Craft Topcoats</u>	<u>0.59</u>
<u>Shellac Sealers:</u>	
<u>Clear</u>	<u>0.98</u>
<u>Pigmented</u>	<u>0.94</u>
<u>Slip-Resistant Coatings</u>	<u>2.41</u>
<u>Spatter/Multicolor Coatings</u>	<u>1.07</u>
<u>Vinyl/Fabric/Leather/Polycarbonate Coatings</u>	<u>1.54</u>
<u>Webbing/Veil Coatings</u>	<u>0.83</u>
<u>Weld-Through Primers</u>	<u>0.98</u>
<u>Wood Stains</u>	<u>1.38</u>
<u>Wood Touch-Up, Repair</u>	<u>1.49</u>
<u>or Restoration Coatings</u>	

(a)(24) ~~if~~ 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)(35) Notwithstanding the provisions of sections 94522(a)(24) 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 ~~VOC~~ 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 the Table of Standards 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) does not apply to any product which: ~~(1) is subject to the provisions of Bay Area Air Quality Management District Rule 8-49 and is sold, supplied, offered for sale, or applied within~~

~~the Bay Area Air Quality Management District; or (2)~~ 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.**

(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. The requirements of this subsection 94522(c)(2) shall not apply to (A) any existing product formulation containing methylene chloride that complies with the Limits specified in section 94522(a)(3) and was sold in California during calendar year 1997, or (B) any product formulation containing methylene chloride that was sold in California during calendar year 1997 that is reformulated to meet the Limits specified in section 94522(a)(3), as long as the content of methylene chloride in the reformulated product does not increase.

(B) The requirements of section 94522(c)(2) shall not apply to any aerosol coating product containing methylene chloride 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).

~~After the effective date of this article, f~~For any aerosol coating product ~~for which standards are specified under~~ 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).

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, 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)(2) shall not apply to (A) any existing product formulation containing perchloroethylene or an ozone depleting substance that complies with the Table of Limits and was sold in California during calendar year 1997, or (B) any product formulation containing perchloroethylene that was sold in California during calendar year 1997 that is reformulated to meet the Table of Limits, as long as the content of perchloroethylene, or ozone depleting substances, as identified in this section 94522(d)(2), in the reformulated product does not increase.

(23) 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.

(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:

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

$$(MC_2 \times W_2) + (VOC_n \times W_n) + (MC_n \times W_n)$$

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

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) Kit PWMIR = (PWMIR₍₁₎ x W₁) + (PWMIR₍₂₎ x W₂) + ... + (PWMIR_(n) x W_n)

(2) Total Reactivity Limit = (RL₁ x W₁) + (RL₂ x W₂) + ... + (RL_n x W_n)

(3) Kit PWMIR ≤ 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.
- (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 (hg) 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)(56), 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) 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).

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

94523. Exemptions.

- (a) This article shall not apply to aerosol lubricants, mold releases, automotive underbody coatings, electrical coatings, cleaners, belt dressings, anti-static sprays, layout fluids and removers, adhesives, maskants, rust converters, dyes, inks, and leather preservatives or cleaners.
- (b) This article shall not apply to any aerosol coating product manufactured in California for shipment and use outside of California.
- (c) The provisions of this article shall not apply to a manufacturer, distributor, or responsible party who sells, supplies, or offers for sale in California an aerosol coating product that does not comply with the ~~VOC standards~~ limits specified in ~~Section 94522(a)(2) or (a)(3)~~, as long as the manufacturer, distributor, or responsible party can demonstrate both that the aerosol coating product is intended for shipment and use outside of California, and that the manufacturer, distributor, or responsible party has taken reasonable prudent precautions to assure that the aerosol coating product is not distributed to California. This subsection (c) does not apply to aerosol coating products that are sold, supplied, or offered for sale by any person to retail outlets in California.
- (d) The requirements in sections ~~94522(a)(2) and (a)(3)~~ prohibiting the application of aerosol coating products ~~containing volatile organic compounds in excess of that exceed~~ the limits specified in ~~the Table of Standards~~ sections 94522(a)(2) or (a)(3) shall apply only to commercial application of aerosol coating products.

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

94524. Administrative Requirements.

(a) **Most Restrictive Limit.**

Except as otherwise provided in section 94522(a)(~~2~~ 4), if anywhere on the container of any aerosol coating product subject to the specified limits in section 94522(a)(2) or (a)(3) ~~listed in the Table of Standards~~, or on any sticker or label affixed thereto, or in any sales or advertising literature, any representation is made that the product may be used as, or is suitable for use as a product for which a lower ~~VOC standard~~ limit is specified, then the lowest applicable ~~VOC standard~~ limit shall 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 ~~subject to section 94522(a)~~

clearly display the following information on each product container which is manufactured 90 days or later after the effective date of this article:

(A) Products subject to the VOC limits specified in section 94522(a)(2) shall display:

1. the applicable VOC standard for the product that is specified in section 94522(a)(2), expressed as a percentage by weight unless the product is included in an alternative control plan approved by the Executive Officer, as provided in Article 4. Section 94540-94555, Title 17, California Code of Regulations, and the product exceeds the applicable VOC standard;
2. if the product is included in an alternative control plan approved by the Executive Officer, and the product exceeds the applicable VOC standard specified in section 94522(a)(2), the product shall be labeled with the term “ACP” or “ACP product”;
- ~~(B)~~3. the aerosol coating category as defined in section 94521, or an abbreviation of the coating category; and
- ~~(C)~~4. the day, month, and year on which the product was manufactured, or a code indicating such date.

(B) Products subject to the reactivity limits specified in section 94522(a)(3) shall display:

1. the applicable reactivity limit for the product that is specified in section 94522(a)(3);
 2. the aerosol coating category as defined in section 94521, or an abbreviation of the coating category; and
 3. the day, month, and year on which the product was manufactured, or a code indicating such date.
- (2) The information required in section 94524(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 94524(b)(1) prior to final sale of the product.

- (4) For any aerosol coating product subject to section 94522(a), 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, 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.**

- (1) Any responsible party for an aerosol coating product subject to this article which is sold, supplied, or offered for sale in California, must supply the Executive Officer of the Air Resources Board with the following information within 90 days of the effective date of this article: the company name, mail address, contact person, and the telephone number of the contact person.

For responsible parties who do not manufacture their own aerosol coating products, the responsible party shall also supply the information specified in this subsection (c)(1) for those manufacturers which produce products for the responsible party.

The responsible party shall also notify the Executive Officer within 90 days of any change in the information supplied to the Executive Officer pursuant to this subsection (c)(1).

- (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) product formulation data:
 - 1. for products subject to the VOC limits specified in section 94522(a)(2), the percent by weight VOC, water, solids, propellant, and any compounds exempt from the definition of VOC as specified in section 94521;
 - 2. for products subject to the reactivity limits specified in section 94522(a)(3), the PWMIR and the weight fraction of all ingredients including: water, solids, each ROC, and any compounds assigned a MIR value of zero as specified in sections 94522(h), 94700, or 94701;
 - (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 or the product-weighted MIR from aerosol coating products.

The information requested in this section (c)(3 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).

- (3) Upon written request, the responsible party for aerosol coating products subject to this article shall supply the Executive Officer with a list of all exempt compounds contained in any aerosol coating product within 15 working days.

(d) **Treatment of Confidential Information.**

All information submitted by manufacturers pursuant to section 94524 shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, sections 91000-91022.

(e) **Special Reporting Requirements for Perchloroethylene-Containing Aerosol Coatings.**

- (1) The requirements of this subsection shall apply to all responsible parties for perchloroethylene-containing aerosol coatings sold or offered for sale in California on or after January 1, 1996. For the purposes of this subsection, “perchloroethylene-containing aerosol coating” means any aerosol coating that is required to comply with any ~~VOC standard limit~~ specified in section 94522(a)(2) or (a)(3) and contains 1.0 percent or more by weight (exclusive of the container or packaging) of perchloroethylene (tetrachloroethylene).
- (2) Reporting Requirements to Establish Baseline. On or before March 1, 1997, or 60 days after the effective date of this subsection (e) (whichever date occurs later), all responsible parties for perchloroethylene-containing aerosol coatings shall report to the Executive Officer the following information for each product:
 - (A) the product brand name and a copy of the product label with legible usage instructions;
 - (B) the product category to which the aerosol coating belongs;
 - ~~(C) the applicable product form(s) (listed separately);~~
 - ~~(D)~~ (E) for each product form listed in ~~(C)~~, the total amount of the aerosol coating sold in California between January 1, 1996 and December 31, 1996, to the

nearest pound (exclusive of the container or packaging), and the method used for calculating the California sales;

(~~E~~D) the weight percent, to the nearest 0.10 percent, of perchloroethylene in the aerosol coating;

- (3) Annual Reporting Requirements. On or before March 1, 1998, March 1, 1999, March 1, 2000, March 1, 2001, and March 1, 2002, all responsible parties subject to the requirements of this subsection shall provide to the Executive Officer an update which reports, for the previous calendar year, any changes in the annual California sales, perchloroethylene content, or any other information provided pursuant to subsections (e)(2)(A) through (e)(2)(~~E~~D). After March 1, 2002, responsible parties are not required to submit this information unless specifically requested to do so by the Executive Officer.
- (4) Upon request, the Executive Officer shall make the information submitted pursuant to this subsection available to publicly-owned treatment works in California, in accordance with the procedures for handling of confidential information specified in Title 17, California Code of Regulations, sections 91000-91022.
 - (A) On or before July 1, 2002, the Executive Officer shall evaluate the information, along with data on influent and effluent levels of perchloroethylene as reported by publicly-owned treatments works and any other relevant information, to determine if it is likely that publicly-owned treatment works are experiencing increased levels of perchloroethylene, relative to 1996 levels, that can be attributed to aerosol coatings which contain perchloroethylene.
 - (B) If the Executive Officer determines that it is likely that increased perchloroethylene levels at the publicly-owned treatment works are caused by increased levels of perchloroethylene in aerosol coatings subject to this regulation, then the Executive Officer shall, in conjunction with the publicly-owned treatment works, implement measures which are feasible, appropriate, and necessary for reducing perchloroethylene levels at the publicly-owned treatment works.

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.

94525. Variances.

- (a) Any person who cannot comply with the requirements set forth in Section 94522, 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 94522 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 94522 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 94522 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 94522 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.

- (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 94522 after holding a public hearing in accordance with the provisions of subsection 94525(b).

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

94526. Test Methods.

Compliance with the requirements of this article shall be determined by using the following test methods, which are incorporated by reference herein. Alternative test methods which are shown to accurately determine the VOC content, ingredient name and weight percent of each ingredient, exempt compound content, metal content, specular gloss, or acid content may also be used after approval in writing by the Executive Officer:

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

- (1) VOC Content. The VOC content of all aerosol coating products subject to the provisions of this article shall be determined by the procedures set forth in “Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products,” adopted September 25, 1997 and as last amended on [Date of Amendment]~~November 19, 1998~~.
- (2) In sections 3.5 and 3.7 of Air Resources Board (ARB) Method 310, a process is specified for the “Initial Determination of VOC Content” and the “Final Determination of VOC Content”. This process is an integral part of testing procedure set forth in ARB Method 310, and is reproduced below:

Sections 3.5 and 3.7 of Air Resources Board Method 310

3.5 Initial Determination of VOC Content. The Executive Officer will determine the VOC content pursuant to section 3.2 and 3.3. Only those components with concentrations equal to or greater than 0.1 percent by weight will be reported.

3.5.1 Using the appropriate formula specified in section 4.0, the Executive Officer will make an initial determination of whether the product meets the applicable VOC standards specified in ARB regulations. If initial results show that the products does not meet the applicable VOC standards, the Executive Officer may perform additional testing to confirm the initial results.

- 3.5.2 If the results obtained under section 3.5.1 show that the products does not meet the applicable VOC standards, the Executive Officer will request the product manufacturer or responsible party to supply product formulation data. The manufacturer or responsible party shall supply the requested information. Information submitted to the ARB Executive Officer may be claimed as confidential; such information will be handled in accordance with the confidentiality procedures specified in Title 17, California Code of Regulations, sections 91000 to 91022.
- 3.5.3 If the information supplied by the manufacturer or responsible party shows that the product does not meet the applicable VOC standards, then the Executive Officer will take appropriate enforcement action.
- 3.5.4 If the manufacturer or responsible party fails to provide formulation data as specified in section 3.5.2, the initial determination of VOC content under this section 3.5 shall determine if the product is in compliance with the applicable VOC standards. This determination may be used to establish a violation of ARB regulations.
- 3.7 Final Determination of VOC Content. If a product's compliance status is not satisfactorily resolved under section 3.5 and 3.6, the Executive Officer will conduct further analyses and testing as necessary to verify the formulation data.
- 3.7.1 If the accuracy of the supplied formulation data is verified and the product sample is determined to meet the applicable VOC standards, then no enforcement action for violation of the VOC standards will be taken.
- 3.7.2 If the Executive Officer is unable to verify the accuracy of the supplied formulation data, then the Executive Officer will request the product manufacturer or responsible party to supply information to explain the discrepancy.
- 3.7.3 If there exists a discrepancy that cannot be resolved between the results of Method 310 and the supplied formulation data, then the results of Method 310 shall take precedence over the supplied formulation data. The results of Method 310 shall then determine if the product is in compliance with the applicable VOC standards, and may be used to establish a violation of ARB regulations.

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

- (1) The ingredients and the amount of each ingredient of all aerosol coating products subject to the provisions of this article shall be determined by the procedures set forth in “Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products,” adopted September 25, 1997 and as last amended on [Date of Amendment].
 - (2) Upon written notification from the Executive Officer, the aerosol coating manufacturer shall have 10 working days to provide to the Executive Officer the following information for products selected for testing:
 - (A) the product category as defined in section 94521(a);
 - (B) the PWMIR and the weight fraction of all ingredients including: water, solids, each ROC, and any compounds assigned a MIR value of zero as specified in sections 94522(h), 94700, or 94701;
 - (C) any other information necessary to determine the PWMIR of the aerosol coating products to be tested.
 - (3) Final determination of the PWMIR of the aerosol coatings shall be determined using the information obtained from section 94526(b)(1) and (2).
- (bc) Exempt Compounds from Products Subject to the VOC Limits Specified in Section 94522(a)(2). Compounds exempt from the definition of VOC shall be analyzed according to the test methods listed below:
- (1) the exempt compound content of all aerosol coating products shall be determined by “Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products,” adopted September 25, 1997 and as last amended on [Amendment Date], which is incorporated herein by reference.
 - (2) the following classes of compounds will be analyzed as exempt compounds only if manufacturers specify which individual compounds are used in the product formulations and identify the test methods, which prior to such analysis, have been approved by the Executive Officer of the ARB, and can be used to quantify the amounts of each exempt compound: cyclic, branched, or linear, completely fluorinated alkanes; cyclic, branched, or linear, completely fluorinated ethers with no unsaturations; cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- (ed) Metal Content. The metal content of metallic aerosol coating products shall be determined by South Coast Air Quality Management District (SCAQMD) Test Method 318-95 “Determination of Weight Percent Elemental Metal in Coatings by X-ray Diffraction” July 1996, which is incorporated herein by reference.

- (de) Specular Gloss. Specular gloss of flat and nonflat coatings shall be determined by ASTM Method D-523-89, March 31, 1989, which is incorporated herein by reference.
- (ef) Acid Content. The acid content of rust converters shall be determined by ASTM Method D-1613-91, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products, May 15, 1991, which is incorporated herein by reference.
- (fg) Lacquers. Lacquer aerosol coating products shall be identified according to the procedures specified in ASTM Method D-5043-90, "Standard Test Methods for Field Identification of Coatings," April 27, 1990, which is incorporated herein by reference.

NOTE: Authority cited: Sections 39600, 39601, 39607, 41511, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39607, 40000, 41511, and 41712, Health and Safety Code.

94527. 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: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94528. 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 sections 94525 and 94526. Within 180 days of a request from a person who has been granted a variance under Section 94525, 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, 39602, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39602, 40000, and 41712, Health and Safety Code.

Proposed
TABLES OF MAXIMUM INCREMENTAL REACTIVITY (MIR)
VALUES

Add new Title 17, California Code of Regulations, Article 1, Tables of Maximum Incremental Reactivity (MIR) Values, section 94700-94701, to read as follows:

SUBCHAPTER 8.6 **MAXIMUM INCREMENTAL REACTIVITY**

Article 1. **Tables of Maximum Incremental Reactivity (MIR) Values**

94700. MIR Values for Compounds.

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>1,1,1-Trichloroethane</u>	<u>0.00</u>	<u>*</u>
<u>1,1,2-Trichloroethane</u>	<u>0.06</u>	<u>*</u>
<u>1,1,3-Trimethyl Cyclohexane</u>	<u>1.37</u>	<u>*</u>
<u>1,1-Dichloroethane</u>	<u>0.10</u>	<u>*</u>
<u>1,2,3-Trimethyl Benzene</u>	<u>11.26</u>	<u>*</u>
<u>1,2,4-Trimethylbenzene</u>	<u>7.18</u>	<u>*</u>
<u>1,2-Butanediol</u>	<u>2.21</u>	<u>*</u>
<u>1,2-Dibromoethane</u>	<u>0.05</u>	<u>*</u>
<u>1,2-Dichloroethane</u>	<u>0.10</u>	<u>*</u>
<u>1,2-Dihydroxy Hexane</u>	<u>2.75</u>	<u>*</u>
<u>1,2-Dimethyl Cyclohexene</u>	<u>6.77</u>	<u>*</u>
<u>1,2-Epoxybutane (Ethyl Oxirane)</u>	<u>1.02</u>	<u>*</u>
<u>1,3,5-Triethyl Cyclohexane</u>	<u>1.06</u>	<u>*</u>
<u>1,3,5-Trimethylbenzene</u>	<u>11.22</u>	<u>*</u>
<u>1,3,5-Tripropyl Cyclohexane</u>	<u>0.90</u>	<u>*</u>
<u>1,3-Butadiene</u>	<u>13.58</u>	<u>*</u>
<u>1,3-Diethyl-5-Methyl Cyclohexane</u>	<u>1.11</u>	<u>*</u>
<u>1,3-Diethyl-5-Pentyl Cyclohexane</u>	<u>0.99</u>	<u>*</u>
<u>1,3-Diethyl-Cyclohexane</u>	<u>1.34</u>	<u>*</u>
<u>1,3-Dimethyl Cyclohexane</u>	<u>1.72</u>	<u>*</u>
<u>1,3-Dimethyl Cyclopentane</u>	<u>2.15</u>	<u>*</u>
<u>1,3-Dipropyl-5-Butyl Cyclohexane</u>	<u>0.77</u>	<u>*</u>
<u>1,3-Dipropyl-5-Ethyl Cyclohexane</u>	<u>0.94</u>	<u>*</u>
<u>1,4-Diethyl-Cyclohexane</u>	<u>1.49</u>	<u>*</u>
<u>1-Butanol (N-Butyl Alcohol)</u>	<u>3.34</u>	<u>*</u>
<u>1-Butene</u>	<u>10.29</u>	<u>*</u>
<u>1-Decene</u>	<u>2.28</u>	<u>*</u>
<u>1-Dodecene</u>	<u>1.72</u>	<u>*</u>
<u>1-Ethyl-2-Propyl Cyclohexane</u>	<u>0.95</u>	<u>*</u>
<u>1-Ethyl-4-Methyl Cyclohexane</u>	<u>1.62</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>1-Heptanol</u>	<u>2.21</u>	<u>*</u>
<u>1-Heptene</u>	<u>4.56</u>	<u>*</u>
<u>1-Hexanol</u>	<u>2.74</u>	<u>*</u>
<u>1-Hexene</u>	<u>6.17</u>	<u>*</u>
<u>1-Hydroxy-2,2,4-Trimethylpentyl-3-Isobutyrate</u>	<u>0.92</u>	<u>*</u>
<u>1-Methyl Cyclohexene</u>	<u>7.81</u>	<u>*</u>
<u>1-Methyl Cyclopentene</u>	<u>13.95</u>	<u>*</u>
<u>1-Methyl Naphthalene</u>	<u>4.61</u>	<u>*</u>
<u>1-Methyl-2-Hexyl-Cyclohexane</u>	<u>0.70</u>	<u>*</u>
<u>1-Methyl-2-Octyl Cyclohexane</u>	<u>0.60</u>	<u>*</u>
<u>1-Methyl-3-Isopropyl Cyclohexane</u>	<u>1.26</u>	<u>*</u>
<u>1-Methyl-4-Heptyl Cyclohexane</u>	<u>0.58</u>	<u>*</u>
<u>1-Methyl-4-Nonyl Cyclohexane</u>	<u>0.55</u>	<u>*</u>
<u>1-Methyl-4-Pentyl Cyclohexane</u>	<u>0.81</u>	<u>*</u>
<u>1-Nonene</u>	<u>2.76</u>	<u>*</u>
<u>1-Octanol</u>	<u>2.01</u>	<u>*</u>
<u>1-Octene</u>	<u>3.45</u>	<u>*</u>
<u>1-Pentadecene</u>	<u>1.30</u>	<u>*</u>
<u>1-Pentene</u>	<u>7.79</u>	<u>*</u>
<u>1-Tetradecene</u>	<u>1.48</u>	<u>*</u>
<u>1-Tridecene</u>	<u>1.55</u>	<u>*</u>
<u>1-Undecene</u>	<u>1.95</u>	<u>*</u>
<u>2-(2-Butoxyethoxy)-Ethanol</u>	<u>2.70</u>	<u>*</u>
<u>2-(2-Ethoxyethoxy) Ethanol</u>	<u>3.19</u>	<u>*</u>
<u>2-(Chloro-Methyl)-3-Chloro-Propene</u>	<u>1.13</u>	<u>*</u>
<u>2,2,3,3-Tetramethyl Butane</u>	<u>0.44</u>	<u>*</u>
<u>2,2,3-Trimethyl Butane</u>	<u>1.32</u>	<u>*</u>
<u>2,2,4-Trimethyl Pentane (Isooctane)</u>	<u>1.44</u>	<u>*</u>
<u>2,2,5-Trimethyl Hexane</u>	<u>1.33</u>	<u>*</u>
<u>2,2-Dimethoxypropane</u>	<u>11.52</u>	<u>*</u>
<u>2,2-Dimethyl Butane</u>	<u>1.33</u>	<u>*</u>
<u>2,2-Dimethyl Hexane</u>	<u>1.13</u>	<u>*</u>
<u>2,2-Dimethyl Pentane</u>	<u>1.22</u>	<u>*</u>
<u>2,2-Dimethylpropanal (Pivaldehyde)</u>	<u>5.40</u>	<u>*</u>
<u>2,3,3-Trimethyl-1-Butene</u>	<u>4.62</u>	<u>*</u>
<u>2,3,4-Trimethyl Pentane</u>	<u>1.23</u>	<u>*</u>
<u>2,3,5-Trimethyl Hexane</u>	<u>1.33</u>	<u>*</u>
<u>2,3-Dimethyl Butane</u>	<u>1.14</u>	<u>*</u>
<u>2,3-Dimethyl Hexane</u>	<u>1.34</u>	<u>*</u>
<u>2,3-Dimethyl Naphthalene</u>	<u>5.54</u>	<u>*</u>
<u>2,3-Dimethyl Pentane</u>	<u>1.55</u>	<u>*</u>
<u>2,3-Dimethyl-1-Butene</u>	<u>4.77</u>	<u>*</u>
<u>2,3-Dimethyl-2-Butene</u>	<u>13.32</u>	<u>*</u>
<u>2,3-Dimethyl-2-Hexene</u>	<u>10.41</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>2,4,4-Trimethyl-2-Pentene</u>	<u>5.85</u>	<u>*</u>
<u>2,4-Dimethyl Heptane</u>	<u>1.48</u>	<u>*</u>
<u>2,4-Dimethyl Hexane</u>	<u>1.80</u>	<u>*</u>
<u>2,4-Dimethyl Octane</u>	<u>1.09</u>	<u>*</u>
<u>2,4-Dimethyl Pentane</u>	<u>1.65</u>	<u>*</u>
<u>2,5-Dimethyl Hexane</u>	<u>1.68</u>	<u>*</u>
<u>2,6-Diethyl Octane</u>	<u>1.09</u>	<u>*</u>
<u>2,6-Dimethyl Nonane</u>	<u>0.95</u>	<u>*</u>
<u>2,6-Dimethyl Octane</u>	<u>1.27</u>	<u>*</u>
<u>2-Butanol (S-Butyl Alcohol)</u>	<u>1.60</u>	<u>*</u>
<u>2-Butyl Tetrahydrofuran</u>	<u>2.53</u>	<u>*</u>
<u>2-Butyne</u>	<u>16.33</u>	<u>*</u>
<u>2-Decanone</u>	<u>1.06</u>	<u>*</u>
<u>2-Ethoxyethanol</u>	<u>3.78</u>	<u>*</u>
<u>2-Ethoxyethyl Acetate</u>	<u>1.90</u>	<u>*</u>
<u>2-Ethyl-1-Butene</u>	<u>5.04</u>	<u>*</u>
<u>2-Ethyl-1-Hexanol (Ethyl Hexyl Alcohol)</u>	<u>2.20</u>	<u>*</u>
<u>2-Ethyl-Hexyl Acetate</u>	<u>0.79</u>	<u>*</u>
<u>2-Heptenes</u>	<u>6.96</u>	<u>*</u>
<u>2-Hexanol</u>	<u>2.46</u>	<u>*</u>
<u>2-Hexenes</u>	<u>8.44</u>	<u>*</u>
<u>2-Methoxy Ethyl Acetate</u>	<u>1.18</u>	<u>*</u>
<u>2-Methoxy Ethyl Acetate</u>	<u>1.18</u>	<u>*</u>
<u>2-Methoxy-1-Propanol</u>	<u>3.01</u>	<u>*</u>
<u>2-Methoxy-1-Propyl Acetate</u>	<u>1.12</u>	<u>*</u>
<u>2-Methyl Heptane</u>	<u>1.20</u>	<u>*</u>
<u>2-Methyl Hexane</u>	<u>1.37</u>	<u>*</u>
<u>2-Methyl Naphthalene</u>	<u>4.61</u>	<u>*</u>
<u>2-Methyl Nonane</u>	<u>0.86</u>	<u>*</u>
<u>2-Methyl Octane</u>	<u>0.96</u>	<u>*</u>
<u>2-Methyl Pentane (Isohexane)</u>	<u>1.80</u>	<u>*</u>
<u>2-Methyl-1-Butene</u>	<u>6.51</u>	<u>*</u>
<u>2-Methyl-1-Pentene</u>	<u>5.18</u>	<u>*</u>
<u>2-Methyl-2,4-Pentanediol</u>	<u>1.04</u>	<u>*</u>
<u>2-Methyl-2-Butene</u>	<u>14.45</u>	<u>*</u>
<u>2-Methyl-2-Butene-3-ol (1,2-Dimethylpropyl-1-en-1-ol)</u>	<u>4.10</u>	<u>*</u>
<u>2-Methyl-2-Pentene</u>	<u>12.28</u>	<u>*</u>
<u>2-Methyl-3-Hexanone</u>	<u>1.79</u>	<u>*</u>
<u>2-Methylpropanal</u>	<u>5.87</u>	<u>*</u>
<u>2-Nonanone</u>	<u>1.30</u>	<u>*</u>
<u>2-Octanol</u>	<u>2.16</u>	<u>*</u>
<u>2-Octanone</u>	<u>1.66</u>	<u>*</u>
<u>2-Pentanol</u>	<u>1.74</u>	<u>*</u>
<u>2-Pentanone (Methyl Propyl Ketone)</u>	<u>3.07</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>2-Pentenes</u>	<u>10.23</u>	<u>*</u>
<u>2-Tert-Butoxy-1-Propanol</u>	<u>1.81</u>	<u>*</u>
<u>3,3-Diethyl Pentane</u>	<u>1.35</u>	<u>*</u>
<u>3,3-Dimethyl Pentane</u>	<u>1.32</u>	<u>*</u>
<u>3,3-Dimethyl-1-Butene</u>	<u>6.06</u>	<u>*</u>
<u>3,4-Diethyl Hexane</u>	<u>1.20</u>	<u>*</u>
<u>3,4-Diethyl-2-Hexene</u>	<u>3.95</u>	<u>*</u>
<u>3,5-Diethyl Heptane</u>	<u>1.21</u>	<u>*</u>
<u>3,5-Dimethyl Heptane</u>	<u>1.63</u>	<u>*</u>
<u>3,6-Dimethyl Decane</u>	<u>0.88</u>	<u>*</u>
<u>3,6-Dimethyl Undecane</u>	<u>0.82</u>	<u>*</u>
<u>3,7-Diethyl Nonane</u>	<u>1.08</u>	<u>*</u>
<u>3,7-Dimethyl Dodecane</u>	<u>0.74</u>	<u>*</u>
<u>3,7-Dimethyl Tridecane</u>	<u>0.64</u>	<u>*</u>
<u>3,8-Diethyl Decane</u>	<u>0.68</u>	<u>*</u>
<u>3,9-Diethyl Undecane</u>	<u>0.62</u>	<u>*</u>
<u>3-Carene</u>	<u>3.21</u>	<u>*</u>
<u>3-Ethoxy-1-Propanol</u>	<u>4.24</u>	<u>*</u>
<u>3-Hydroxy-2,2,4-Trimethylpentyl-1-Isobutyrate</u>	<u>0.88</u>	<u>*</u>
<u>3-Hydroxy-2,2,4-Trimethylpentyl-1-Isobutyrate Isomers</u>	<u>0.89</u>	<u>*</u>
<u>3-Methoxy-1-Butanol</u>	<u>0.97</u>	<u>*</u>
<u>3-Methoxy-3-Methyl-Butanol</u>	<u>1.74</u>	<u>*</u>
<u>3-Methyl Decane</u>	<u>0.77</u>	<u>*</u>
<u>3-Methyl Dodecane</u>	<u>0.64</u>	<u>*</u>
<u>3-Methyl Heptane</u>	<u>1.35</u>	<u>*</u>
<u>3-Methyl Hexane</u>	<u>1.86</u>	<u>*</u>
<u>3-Methyl Nonane</u>	<u>0.89</u>	<u>*</u>
<u>3-Methyl Pentadecane</u>	<u>0.50</u>	<u>*</u>
<u>3-Methyl Pentane</u>	<u>2.07</u>	<u>*</u>
<u>3-Methyl Tetradecane</u>	<u>0.53</u>	<u>*</u>
<u>3-Methyl Tridecane</u>	<u>0.57</u>	<u>*</u>
<u>3-Methyl Undecane</u>	<u>0.70</u>	<u>*</u>
<u>3-Methyl-1-Butene</u>	<u>6.99</u>	<u>*</u>
<u>3-Methyl-1-Pentene</u>	<u>6.22</u>	<u>*</u>
<u>3-Methyl-2-Isopropyl-1-Butene</u>	<u>3.29</u>	<u>*</u>
<u>3-Methylbutanal (Isovaleraldehyde)</u>	<u>5.52</u>	<u>*</u>
<u>3-Nonenes</u>	<u>5.31</u>	<u>*</u>
<u>3-Octanol</u>	<u>2.57</u>	<u>*</u>
<u>3-Octenes</u>	<u>6.13</u>	<u>*</u>
<u>3-Pentanol</u>	<u>1.73</u>	<u>*</u>
<u>3-Pentanone</u>	<u>1.45</u>	<u>*</u>
<u>4,8-Dimethyl Tetradecane</u>	<u>0.58</u>	<u>*</u>
<u>4-Ethyl Heptane</u>	<u>1.44</u>	<u>*</u>
<u>4-Methyl Cyclohexene</u>	<u>4.48</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
4-Methyl Decane	<u>0.80</u>	<u>*</u>
4-Methyl Heptane	<u>1.48</u>	<u>*</u>
4-Methyl Nonane	<u>0.99</u>	<u>*</u>
4-Methyl Octane	<u>1.08</u>	<u>*</u>
4-Methyl-1-Pentene	<u>6.26</u>	<u>*</u>
4-Octanol	<u>3.07</u>	<u>*</u>
4-Propyl Heptane	<u>1.24</u>	<u>*</u>
5-Methyl Dodecane	<u>0.64</u>	<u>*</u>
5-Methyl Undecane	<u>0.72</u>	<u>*</u>
6-Methyl Tetradecane	<u>0.57</u>	<u>*</u>
6-Methyl Tridecane	<u>0.62</u>	<u>*</u>
7-Methyl Pentadecane	<u>0.51</u>	<u>*</u>
Acetaldehyde	<u>6.84</u>	<u>*</u>
Acetate, 2,3,5,6,8-Pentamethyl Nonyl	<u>0.74</u>	<u>*</u>
Acetate, 2,3,5,7-Tetramethyl Octyl	<u>0.74</u>	<u>*</u>
Acetate, 2,3,5-Trimethyl Hexyl	<u>0.86</u>	<u>*</u>
Acetate, 2,3-Dimethyl Butyl	<u>0.84</u>	<u>*</u>
Acetate, 2,3-Dimethyl Heptyl	<u>0.84</u>	<u>*</u>
Acetate, 2,4,6,8-Tetramethyl Nonyl	<u>0.63</u>	<u>*</u>
Acetate, 2,4-Dimethyl Heptyl	<u>0.88</u>	<u>*</u>
Acetate, 2,4-Dimethyl Hexyl	<u>0.93</u>	<u>*</u>
Acetate, 2,4-Dimethyl Pentyl	<u>0.98</u>	<u>*</u>
Acetate, 2,5-Dimethyl Heptyl	<u>0.86</u>	<u>*</u>
Acetate, 2-Methyl Hexyl	<u>0.89</u>	<u>*</u>
Acetate, 2-Methyl Octyl	<u>0.63</u>	<u>*</u>
Acetate, 2-Methyl Pentyl	<u>1.11</u>	<u>*</u>
Acetate, 3,4-Dimethyl Hexyl	<u>1.16</u>	<u>*</u>
Acetate, 3,5,7,9-Tetramethyl Decyl	<u>0.58</u>	<u>*</u>
Acetate, 3,5,7-Trimethyl Nonyl	<u>0.76</u>	<u>*</u>
Acetate, 3,5,7-Trimethyl Octyl	<u>0.83</u>	<u>*</u>
Acetate, 3,5-Dimethyl Heptyl	<u>1.01</u>	<u>*</u>
Acetate, 3,5-Dimethyl Hexyl	<u>1.09</u>	<u>*</u>
Acetate, 3,6,8-Trimethyl Nonyl	<u>0.72</u>	<u>*</u>
Acetate, 3,6-Dimethyl Heptyl	<u>0.87</u>	<u>*</u>
Acetate, 3,6-Dimethyl Octyl	<u>0.88</u>	<u>*</u>
Acetate, 3-Ethyl Heptyl	<u>0.71</u>	<u>*</u>
Acetate, 3-Ethyl Hexyl	<u>1.03</u>	<u>*</u>
Acetate, 3-Ethyl Pentyl	<u>1.24</u>	<u>*</u>
Acetate, 3-Ethyl-6,7-Dimethyl Nonyl	<u>0.76</u>	<u>*</u>
Acetate, 3-Ethyl-6-Methyl Octyl	<u>0.80</u>	<u>*</u>
Acetate, 3-Isopropyl Heptyl	<u>0.71</u>	<u>*</u>
Acetate, 3-Methyl Heptyl	<u>0.76</u>	<u>*</u>
Acetate, 3-Methyl Hexyl	<u>1.01</u>	<u>*</u>
Acetate, 3-Methyl Pentyl	<u>1.31</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>Acetate, 4,5-Dimethyl Heptyl</u>	<u>0.96</u>	<u>*</u>
<u>Acetate, 4,5-Dimethyl Hexyl</u>	<u>0.86</u>	<u>*</u>
<u>Acetate, 4,6-Dimethyl Heptyl</u>	<u>0.83</u>	<u>*</u>
<u>Acetate, 4,6-Dimethyl Octyl</u>	<u>0.85</u>	<u>*</u>
<u>Acetate, 4,7,9-Trimethyl Decyl</u>	<u>0.55</u>	<u>*</u>
<u>Acetate, 4,7-Dimethyl Nonyl</u>	<u>0.64</u>	<u>*</u>
<u>Acetate, 4-Methyl Heptyl</u>	<u>0.72</u>	<u>*</u>
<u>Acetate, 4-Methyl Hexyl</u>	<u>0.91</u>	<u>*</u>
<u>Acetate, 4-Methyl Octyl</u>	<u>0.68</u>	<u>*</u>
<u>Acetate, 4-Methyl Pentyl</u>	<u>0.92</u>	<u>*</u>
<u>Acetate, 5-Ethyl-3,6,8-Trimethyl Nonyl</u>	<u>0.77</u>	<u>*</u>
<u>Acetate, 5-Methyl Heptyl</u>	<u>0.73</u>	<u>*</u>
<u>Acetate, 5-Methyl Hexyl</u>	<u>0.79</u>	<u>*</u>
<u>Acetate, 5-Methyl Octyl</u>	<u>0.67</u>	<u>*</u>
<u>Acetic Acid</u>	<u>0.71</u>	<u>*</u>
<u>Acetone</u>	<u>0.43</u>	<u>*</u>
<u>Acetylene</u>	<u>1.25</u>	<u>*</u>
<u>Acrolein</u>	<u>7.60</u>	<u>*</u>
<u>Acrylic Acid</u>	<u>11.66</u>	<u>*</u>
<u>Alkyl Phenols</u>	<u>2.34</u>	<u>*</u>
<u>Alpha-Methyltetrahydrofuran</u>	<u>4.62</u>	<u>*</u>
<u>a-Methyl Styrene</u>	<u>1.72</u>	<u>*</u>
<u>Amyl Acetate</u>	<u>0.96</u>	<u>*</u>
<u>a-Pinene</u>	<u>4.29</u>	<u>*</u>
<u>Base ROG Mixture</u>	<u>3.71</u>	<u>*</u>
<u>Benzaldehyde</u>	<u>0.00</u>	<u>*</u>
<u>Benzene</u>	<u>0.81</u>	<u>*</u>
<u>Benzotrifluoride</u>	<u>0.26</u>	<u>*</u>
<u>Biacetyl</u>	<u>20.73</u>	<u>*</u>
<u>b-Pinene</u>	<u>3.28</u>	<u>*</u>
<u>Branched C10 Alkanes</u>	<u>1.09</u>	<u>*</u>
<u>Branched C11 Alkanes</u>	<u>0.87</u>	<u>*</u>
<u>Branched C12 Alkanes</u>	<u>0.80</u>	<u>*</u>
<u>Branched C13 Alkanes</u>	<u>0.73</u>	<u>*</u>
<u>Branched C14 Alkanes</u>	<u>0.67</u>	<u>*</u>
<u>Branched C15 Alkanes</u>	<u>0.60</u>	<u>*</u>
<u>Branched C16 Alkanes</u>	<u>0.54</u>	<u>*</u>
<u>Branched C17 Alkanes</u>	<u>0.51</u>	<u>*</u>
<u>Branched C18 Alkanes</u>	<u>0.48</u>	<u>*</u>
<u>Branched C5 Alkanes</u>	<u>1.68</u>	<u>*</u>
<u>Branched C6 Alkanes</u>	<u>1.53</u>	<u>*</u>
<u>Branched C7 Alkanes</u>	<u>1.63</u>	<u>*</u>
<u>Branched C8 Alkanes</u>	<u>1.57</u>	<u>*</u>
<u>Branched C9 Alkanes</u>	<u>1.25</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>Butanal</u>	<u>6.74</u>	<u>*</u>
<u>Butyl Cyclohexane</u>	<u>1.07</u>	<u>*</u>
<u>Butyl Methacrylate</u>	<u>9.09</u>	<u>*</u>
<u>Butyl Propionate</u>	<u>0.89</u>	<u>*</u>
<u>Butylbenzene (Isomers)</u>	<u>5.48</u>	<u>*</u>
<u>C10 3-Alkenes</u>	<u>4.50</u>	<u>*</u>
<u>C10 Alkenes</u>	<u>3.39</u>	<u>*</u>
<u>C10 Bicycloalkanes</u>	<u>1.29</u>	<u>*</u>
<u>C10 Cyclic Ketones</u>	<u>1.02</u>	<u>*</u>
<u>C10 Cyclic Or Di-Olefins</u>	<u>4.56</u>	<u>*</u>
<u>C10 Cycloalkanes</u>	<u>1.27</u>	<u>*</u>
<u>C10 Disubstituted Benzenes</u>	<u>5.92</u>	<u>*</u>
<u>C10 Internal Alkenes</u>	<u>4.50</u>	<u>*</u>
<u>C10 Ketones</u>	<u>1.06</u>	<u>*</u>
<u>C10 Monosubstituted Benzenes</u>	<u>1.97</u>	<u>*</u>
<u>C10 Styrenes</u>	<u>1.53</u>	<u>*</u>
<u>C10 Terminal Alkenes</u>	<u>2.28</u>	<u>*</u>
<u>C10 Tetrasubstituted Benzenes</u>	<u>8.86</u>	<u>*</u>
<u>C10 Trisubstituted Benzenes</u>	<u>8.86</u>	<u>*</u>
<u>C11 3-Alkenes</u>	<u>4.23</u>	<u>*</u>
<u>C11 Alkenes</u>	<u>3.09</u>	<u>*</u>
<u>C11 Bicycloalkanes</u>	<u>1.01</u>	<u>*</u>
<u>C11 Cyclic Or Di-Olefins</u>	<u>4.29</u>	<u>*</u>
<u>C11 Cycloalkanes</u>	<u>0.99</u>	<u>*</u>
<u>C11 Disubstituted Benzenes</u>	<u>5.35</u>	<u>*</u>
<u>C11 Internal Alkenes</u>	<u>4.23</u>	<u>*</u>
<u>C11 Monosubstituted Benzenes</u>	<u>1.78</u>	<u>*</u>
<u>C11 Pentasubstituted Benzenes</u>	<u>8.03</u>	<u>*</u>
<u>C11 Terminal Alkenes</u>	<u>1.95</u>	<u>*</u>
<u>C11 Tetralin Or Indane</u>	<u>2.56</u>	<u>*</u>
<u>C11 Tetrasubstituted Benzenes</u>	<u>8.03</u>	<u>*</u>
<u>C11 Trisubstituted Benzenes</u>	<u>8.03</u>	<u>*</u>
<u>C12 2-Alkenes</u>	<u>3.75</u>	<u>*</u>
<u>C12 3-Alkenes</u>	<u>3.75</u>	<u>*</u>
<u>C12 Alkenes</u>	<u>2.73</u>	<u>*</u>
<u>C12 Bicycloalkanes</u>	<u>0.88</u>	<u>*</u>
<u>C12 Cyclic Or Di-Olefins</u>	<u>3.79</u>	<u>*</u>
<u>C12 Cycloalkanes</u>	<u>0.87</u>	<u>*</u>
<u>C12 Disubstituted Benzenes</u>	<u>4.90</u>	<u>*</u>
<u>C12 Disubstituted Naphthalenes</u>	<u>5.54</u>	<u>*</u>
<u>C12 Hexasubstituted Benzenes</u>	<u>7.33</u>	<u>*</u>
<u>C12 Internal Alkenes</u>	<u>3.75</u>	<u>*</u>
<u>C12 Monosubstituted Benzenes</u>	<u>1.63</u>	<u>*</u>
<u>C12 Monosubstituted Naphthalenes</u>	<u>4.20</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>C12 Pentasubstituted Benzenes</u>	<u>7.33</u>	<u>*</u>
<u>C12 Terminal Alkenes</u>	<u>1.72</u>	<u>*</u>
<u>C12 Tetrasubstituted Benzenes</u>	<u>7.33</u>	<u>*</u>
<u>C12 Trisubstituted Benzenes</u>	<u>7.33</u>	<u>*</u>
<u>C13 3-Alkenes</u>	<u>3.38</u>	<u>*</u>
<u>C13 Alkenes</u>	<u>2.46</u>	<u>*</u>
<u>C13 Bicycloalkanes</u>	<u>0.79</u>	<u>*</u>
<u>C13 Cyclic Or Di-Olefins</u>	<u>3.42</u>	<u>*</u>
<u>C13 Cycloalkanes</u>	<u>0.78</u>	<u>*</u>
<u>C13 Disubstituted Benzenes</u>	<u>4.50</u>	<u>*</u>
<u>C13 Disubstituted Naphthalenes</u>	<u>5.08</u>	<u>*</u>
<u>C13 Internal Alkenes</u>	<u>3.38</u>	<u>*</u>
<u>C13 Monosubstituted Benzenes</u>	<u>1.50</u>	<u>*</u>
<u>C13 Monosubstituted Naphthalenes</u>	<u>3.86</u>	<u>*</u>
<u>C13 Terminal Alkenes</u>	<u>1.55</u>	<u>*</u>
<u>C13 Trisubstituted Benzenes</u>	<u>6.75</u>	<u>*</u>
<u>C13 Trisubstituted Naphthalenes</u>	<u>5.08</u>	<u>*</u>
<u>C14 3-Alkenes</u>	<u>3.08</u>	<u>*</u>
<u>C14 Alkenes</u>	<u>2.28</u>	<u>*</u>
<u>C14 Bicycloalkanes</u>	<u>0.71</u>	<u>*</u>
<u>C14 Cyclic Or Di-Olefins</u>	<u>3.11</u>	<u>*</u>
<u>C14 Cycloalkanes</u>	<u>0.71</u>	<u>*</u>
<u>C14 Internal Alkenes</u>	<u>3.08</u>	<u>*</u>
<u>C14 Terminal Alkenes</u>	<u>1.48</u>	<u>*</u>
<u>C15 3-Alkenes</u>	<u>2.82</u>	<u>*</u>
<u>C15 Alkenes</u>	<u>2.06</u>	<u>*</u>
<u>C15 Bicycloalkanes</u>	<u>0.69</u>	<u>*</u>
<u>C15 Cyclic Or Di-Olefins</u>	<u>2.85</u>	<u>*</u>
<u>C15 Cycloalkanes</u>	<u>0.68</u>	<u>*</u>
<u>C15 Internal Alkenes</u>	<u>2.82</u>	<u>*</u>
<u>C15 Terminal Alkenes</u>	<u>1.30</u>	<u>*</u>
<u>C16 Cycloalkanes</u>	<u>0.61</u>	<u>*</u>
<u>C4 Aldehydes</u>	<u>6.74</u>	<u>*</u>
<u>C4 Alkenes</u>	<u>11.93</u>	<u>*</u>
<u>C4 Internal Alkenes</u>	<u>13.57</u>	<u>*</u>
<u>C4 Terminal Alkenes</u>	<u>10.29</u>	<u>*</u>
<u>C5 Aldehydes</u>	<u>5.76</u>	<u>*</u>
<u>C5 Alkenes</u>	<u>9.01</u>	<u>*</u>
<u>C5 Cyclic Ketones</u>	<u>1.43</u>	<u>*</u>
<u>C5 Internal Alkenes</u>	<u>10.23</u>	<u>*</u>
<u>C5 Ketones</u>	<u>3.07</u>	<u>*</u>
<u>C5 Terminal Alkenes</u>	<u>7.79</u>	<u>*</u>
<u>C6 Aldehydes</u>	<u>4.98</u>	<u>*</u>
<u>C6 Alkenes</u>	<u>6.88</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>C6 Cyclic Ketones</u>	<u>1.61</u>	<u>*</u>
<u>C6 Cyclic Or Di-Olefins</u>	<u>8.65</u>	<u>*</u>
<u>C6 Cycloalkanes</u>	<u>1.46</u>	<u>*</u>
<u>C6 Internal Alkenes</u>	<u>8.44</u>	<u>*</u>
<u>C6 Ketones</u>	<u>3.55</u>	<u>*</u>
<u>C6 Terminal Alkenes</u>	<u>6.17</u>	<u>*</u>
<u>C7 Aldehydes</u>	<u>4.23</u>	<u>*</u>
<u>C7 Alkenes</u>	<u>5.76</u>	<u>*</u>
<u>C7 Cyclic Ketones</u>	<u>1.41</u>	<u>*</u>
<u>C7 Cyclic Or Di-Olefins</u>	<u>7.49</u>	<u>*</u>
<u>C7 Cycloalkanes</u>	<u>1.99</u>	<u>*</u>
<u>C7 Internal Alkenes</u>	<u>6.96</u>	<u>*</u>
<u>C7 Ketones</u>	<u>2.80</u>	<u>*</u>
<u>C7 Terminal Alkenes</u>	<u>4.56</u>	<u>*</u>
<u>C8 Aldehydes</u>	<u>3.65</u>	<u>*</u>
<u>C8 Alkenes</u>	<u>4.68</u>	<u>*</u>
<u>C8 Cyclic Ketones</u>	<u>1.25</u>	<u>*</u>
<u>C8 Cyclic Or Di-Olefins</u>	<u>6.01</u>	<u>*</u>
<u>C8 Cycloalkanes</u>	<u>1.75</u>	<u>*</u>
<u>C8 Disubstituted Benzenes</u>	<u>5.16</u>	<u>*</u>
<u>C8 Internal Alkenes</u>	<u>5.90</u>	<u>*</u>
<u>C8 Ketones</u>	<u>1.66</u>	<u>*</u>
<u>C8 Terminal Alkenes</u>	<u>3.45</u>	<u>*</u>
<u>C9 Alkenes</u>	<u>4.03</u>	<u>*</u>
<u>C9 Bicycloalkanes</u>	<u>1.57</u>	<u>*</u>
<u>C9 Cyclic Ketones</u>	<u>1.13</u>	<u>*</u>
<u>C9 Cyclic Or Di-Olefins</u>	<u>5.40</u>	<u>*</u>
<u>C9 Cycloalkanes</u>	<u>1.55</u>	<u>*</u>
<u>C9 Disubstituted Benzenes</u>	<u>6.61</u>	<u>*</u>
<u>C9 Internal Alkenes</u>	<u>5.31</u>	<u>*</u>
<u>C9 Ketones</u>	<u>1.30</u>	<u>*</u>
<u>C9 Monosub. Benzenes</u>	<u>2.20</u>	<u>*</u>
<u>C9 Styrenes</u>	<u>1.72</u>	<u>*</u>
<u>C9 Terminal Alkenes</u>	<u>2.76</u>	<u>*</u>
<u>C9 Trisub. Benzenes</u>	<u>9.90</u>	<u>*</u>
<u>Carbon Monoxide</u>	<u>0.06</u>	<u>*</u>
<u>Chloroform</u>	<u>0.03</u>	<u>*</u>
<u>Cis-2-Butene</u>	<u>13.22</u>	<u>*</u>
<u>Cis-2-Hexene</u>	<u>8.44</u>	<u>*</u>
<u>Cis-2-Pentene</u>	<u>10.24</u>	<u>*</u>
<u>Cis-3-Heptene</u>	<u>6.96</u>	<u>*</u>
<u>Cis-3-Hexene</u>	<u>8.22</u>	<u>*</u>
<u>Cis-3-Methyl-2-Hexene</u>	<u>13.38</u>	<u>*</u>
<u>Cis-4-Octene</u>	<u>5.94</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>Cis-5-Decene</u>	<u>4.89</u>	<u>*</u>
<u>Cresol, Meta-</u>	<u>2.34</u>	<u>*</u>
<u>Cresol, Ortho-</u>	<u>2.34</u>	<u>*</u>
<u>Cresol, Para-</u>	<u>2.34</u>	<u>*</u>
<u>Crotonaldehyde</u>	<u>10.07</u>	<u>*</u>
<u>Cumene (Isopropylbenzene)</u>	<u>2.32</u>	<u>*</u>
<u>Cumene Hydroperoxide (1-Methyl-1-Phenylethylhydroperoxide)</u>	<u>12.61</u>	<u>*</u>
<u>Cyclobutane</u>	<u>1.05</u>	<u>*</u>
<u>Cyclobutanone</u>	<u>0.68</u>	<u>*</u>
<u>Cycloheptane</u>	<u>2.26</u>	<u>*</u>
<u>Cyclohexane</u>	<u>1.46</u>	<u>*</u>
<u>Cyclohexanol</u>	<u>2.25</u>	<u>*</u>
<u>Cyclohexanone</u>	<u>1.61</u>	<u>*</u>
<u>Cyclohexene</u>	<u>5.45</u>	<u>*</u>
<u>Cyclooctane</u>	<u>1.73</u>	<u>*</u>
<u>Cyclopentadiene</u>	<u>7.61</u>	<u>*</u>
<u>Cyclopentane</u>	<u>2.69</u>	<u>*</u>
<u>Cyclopentanol</u>	<u>1.96</u>	<u>*</u>
<u>Cyclopentanone</u>	<u>1.43</u>	<u>*</u>
<u>Cyclopentene</u>	<u>7.38</u>	<u>*</u>
<u>Cyclopropane</u>	<u>0.10</u>	<u>*</u>
<u>Decyl Cyclohexane</u>	<u>0.50</u>	<u>*</u>
<u>Dexpanthenol (Pantothenylol)</u>	<u>9.35</u>	<u>*</u>
<u>Di N-Propyl Ether</u>	<u>3.24</u>	<u>*</u>
<u>Diacetone Alcohol (4-Hydroxy-4-Methyl-2-Pentanone)</u>	<u>0.68</u>	<u>*</u>
<u>Dichlorobenzene, Para-</u>	<u>0.20</u>	<u>*</u>
<u>Diethanolamine</u>	<u>4.05</u>	<u>*</u>
<u>Diethyl Ether</u>	<u>4.01</u>	<u>*</u>
<u>Diethylene Glycol</u>	<u>3.55</u>	<u>*</u>
<u>Diethylene Glycol Methyl Ether (2-(2-Methoxyethoxy)-Ethanol)</u>	<u>2.90</u>	<u>*</u>
<u>Diethylenetriamine**</u>	<u>13.03</u>	<u>*</u>
<u>Di-Isobutyl Ether</u>	<u>1.29</u>	<u>*</u>
<u>Di-Isobutyl Ketone (2,6-Dimethyl-4-Heptanone)</u>	<u>2.94</u>	<u>*</u>
<u>Diisopropyl Carbonate</u>	<u>1.04</u>	<u>*</u>
<u>Di-Isopropyl Ketone</u>	<u>1.63</u>	<u>*</u>
<u>Dimethoxymethane</u>	<u>1.04</u>	<u>*</u>
<u>Dimethyl Adipate</u>	<u>1.95</u>	<u>*</u>
<u>Dimethyl Amine</u>	<u>9.37</u>	<u>*</u>
<u>Dimethyl Carbonate</u>	<u>0.06</u>	<u>*</u>
<u>Dimethyl Ether</u>	<u>0.93</u>	<u>*</u>
<u>Dimethyl Glutarate</u>	<u>0.49</u>	<u>*</u>
<u>Dimethyl Naphthalenes</u>	<u>5.54</u>	<u>*</u>
<u>Dimethyl Succinate</u>	<u>0.25</u>	<u>*</u>
<u>Dimethylaminoethanol</u>	<u>4.76</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>Dimethylaminoethanol</u>	<u>4.76</u>	<u>*</u>
<u>Di-N-Butyl Ether</u>	<u>3.17</u>	<u>*</u>
<u>Di-N-Pentyl Ether</u>	<u>2.64</u>	<u>*</u>
<u>Dipropylene Glycol</u>	<u>2.48</u>	<u>*</u>
<u>Dipropylene Glycol Methyl Ether</u>	<u>2.21</u>	<u>*</u>
<u>EEP Solvent (Ethyl 3-Ethoxy Propionate)</u>	<u>3.61</u>	<u>*</u>
<u>Ester, Substituted C7</u>	<u>0.92</u>	<u>*</u>
<u>Ester, Substituted C9</u>	<u>0.89</u>	<u>*</u>
<u>Ethane</u>	<u>0.31</u>	<u>*</u>
<u>Ethanol</u>	<u>1.69</u>	<u>*</u>
<u>Ethanolamine</u>	<u>5.97</u>	<u>*</u>
<u>Ethene</u>	<u>9.08</u>	<u>*</u>
<u>Ethyl Acetate</u>	<u>0.64</u>	<u>*</u>
<u>Ethyl Acetylene</u>	<u>6.20</u>	<u>*</u>
<u>Ethyl Acrylate</u>	<u>8.78</u>	<u>*</u>
<u>Ethyl Amine</u>	<u>7.80</u>	<u>*</u>
<u>Ethyl Benzene</u>	<u>2.79</u>	<u>*</u>
<u>Ethyl Bromide</u>	<u>0.11</u>	<u>*</u>
<u>Ethyl Butyrate</u>	<u>1.25</u>	<u>*</u>
<u>Ethyl Chloride</u>	<u>0.25</u>	<u>*</u>
<u>Ethyl Cyclopentane</u>	<u>2.27</u>	<u>*</u>
<u>Ethyl Formate</u>	<u>0.52</u>	<u>*</u>
<u>Ethyl Isopropyl Ether</u>	<u>3.86</u>	<u>*</u>
<u>Ethyl Lactate</u>	<u>2.71</u>	<u>*</u>
<u>Ethyl N-Butyl Ether</u>	<u>3.86</u>	<u>*</u>
<u>Ethyl Propionate</u>	<u>0.79</u>	<u>*</u>
<u>Ethyl T-Butyl Ether</u>	<u>2.11</u>	<u>*</u>
<u>Ethylbenzene (Isomers)</u>	<u>5.16</u>	<u>*</u>
<u>Ethylcyclohexane</u>	<u>1.75</u>	<u>*</u>
<u>Ethylene Glycol</u>	<u>3.36</u>	<u>*</u>
<u>Ethylene Glycol 2-Ethylhexyl Ether [2-(2-Ethylhexyloxy) Ethanol]</u>	<u>8.26</u>	<u>*</u>
<u>Ethylene Glycol Diacetate</u>	<u>0.72</u>	<u>*</u>
<u>Ethylene Glycol Monobutyl Ether (2-Butoxyethanol)</u>	<u>2.90</u>	<u>*</u>
<u>Ethylene Glycol Monobutyl Ether Acetate (2-Butoxyethyl Acetate)</u>	<u>1.67</u>	<u>*</u>
<u>Ethylene Glycol Monomethyl Ether (2-Methoxyethanol)</u>	<u>2.98</u>	<u>*</u>
<u>Ethylene Glycol Monopropyl Ether (2-Propoxyethanol)</u>	<u>3.52</u>	<u>*</u>
<u>Ethylene Oxide</u>	<u>0.05</u>	<u>*</u>
<u>Formaldehyde</u>	<u>8.97</u>	<u>*</u>
<u>Formic Acid</u>	<u>0.08</u>	<u>*</u>
<u>Furan</u>	<u>16.54</u>	<u>*</u>
<u>Glutaraldehyde</u>	<u>4.79</u>	<u>*</u>
<u>Glycerol (1,2,3-Propanetriol)</u>	<u>3.27</u>	<u>*</u>
<u>Glycolic Acid (Hydroxyacetic Acid)</u>	<u>12.62</u>	<u>*</u>
<u>Glyoxal</u>	<u>14.22</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>Heptanal</u>	<u>4.23</u>	<u>*</u>
<u>Heptyl Acetate</u>	<u>0.73</u>	<u>*</u>
<u>Heptyl Cyclohexane</u>	<u>0.66</u>	<u>*</u>
<u>Hexanal</u>	<u>4.98</u>	<u>*</u>
<u>Hexane</u>	<u>1.45</u>	<u>*</u>
<u>Hexyl Acetate</u>	<u>0.87</u>	<u>*</u>
<u>Hexyl Cyclohexane</u>	<u>0.75</u>	<u>*</u>
<u>Hexylbenzene (Isomers)</u>	<u>4.53</u>	<u>*</u>
<u>HFC-134a (1,1,1,2-Tetrafluoroethane)</u>	<u>0.00</u>	<u>*</u>
<u>HFC-152a (1,1-Difluoroethane)</u>	<u>0.00</u>	<u>*</u>
<u>Hydroxy Acetone</u>	<u>3.08</u>	<u>*</u>
<u>Hydroxy Methacrolein</u>	<u>6.61</u>	<u>*</u>
<u>Hydroxyethylethylene Urea</u>	<u>14.75</u>	<u>*</u>
<u>Indane</u>	<u>3.17</u>	<u>*</u>
<u>Isoamyl Isobutyrate</u>	<u>0.89</u>	<u>*</u>
<u>Isobutane</u>	<u>1.35</u>	<u>*</u>
<u>Isobutanol (Isobutyl Alcohol)</u>	<u>2.24</u>	<u>*</u>
<u>Isobutyl Acetate</u>	<u>0.67</u>	<u>*</u>
<u>Isobutyl Isobutyrate</u>	<u>0.64</u>	<u>*</u>
<u>Isobutyl Methacrylate</u>	<u>8.99</u>	<u>*</u>
<u>Isobutylene (2-Methylpropene)</u>	<u>6.35</u>	<u>*</u>
<u>Isodecyl Alcohol</u>	<u>1.18</u>	<u>*</u>
<u>Isopentane</u>	<u>1.68</u>	<u>*</u>
<u>Isoprene</u>	<u>10.69</u>	<u>*</u>
<u>Isopropanol (2-Propanol)</u>	<u>0.71</u>	<u>*</u>
<u>Isopropyl Acetate</u>	<u>1.24</u>	<u>*</u>
<u>Isopropyl Cyclopropane</u>	<u>1.52</u>	<u>*</u>
<u>Limonene (Dipentene)</u>	<u>3.99</u>	<u>*</u>
<u>Limonene, d- (Orange Terpene)</u>	<u>3.99</u>	<u>*</u>
<u>Methacrolein</u>	<u>6.23</u>	<u>*</u>
<u>Methacrylic Acid</u>	<u>22.30</u>	<u>*</u>
<u>Methane</u>	<u>0.01</u>	<u>*</u>
<u>Methanol</u>	<u>0.71</u>	<u>*</u>
<u>Methoxy Acetone</u>	<u>2.14</u>	<u>*</u>
<u>Methyl Acetate</u>	<u>0.07</u>	<u>*</u>
<u>Methyl Acetylene</u>	<u>6.45</u>	<u>*</u>
<u>Methyl Acrylate</u>	<u>12.24</u>	<u>*</u>
<u>Methyl Amyl Ketone (2-Heptanone)</u>	<u>2.80</u>	<u>*</u>
<u>Methyl Bromide</u>	<u>0.02</u>	<u>*</u>
<u>Methyl Butyrate</u>	<u>1.18</u>	<u>*</u>
<u>Methyl Chloride</u>	<u>0.03</u>	<u>*</u>
<u>Methyl Cyclohexane</u>	<u>1.99</u>	<u>*</u>
<u>Methyl Cyclopentane</u>	<u>2.42</u>	<u>*</u>
<u>Methyl Ethyl Ketone (2-Butanone)</u>	<u>1.49</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>Methyl Ethyl Ketoxime (Ethyl Methyl Ketone Oxime)**</u>	<u>15.43</u>	<u>*</u>
<u>Methyl Formate</u>	<u>0.07</u>	<u>*</u>
<u>Methyl Glyoxal</u>	<u>16.21</u>	<u>*</u>
<u>Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)</u>	<u>4.31</u>	<u>*</u>
<u>Methyl Isobutyrate</u>	<u>0.70</u>	<u>*</u>
<u>Methyl Isopropyl Carbonate</u>	<u>0.69</u>	<u>*</u>
<u>Methyl Lactate</u>	<u>2.75</u>	<u>*</u>
<u>Methyl Methacrylate</u>	<u>15.84</u>	<u>*</u>
<u>Methyl Naphthalenes</u>	<u>4.61</u>	<u>*</u>
<u>Methyl N-Butyl Ether</u>	<u>3.66</u>	<u>*</u>
<u>Methyl N-Butyl Ketone (2-Hexanone)</u>	<u>3.55</u>	<u>*</u>
<u>Methyl Pivalate (2,2-Dimethyl Propanoic Acid Methyl Ester)</u>	<u>0.41</u>	<u>*</u>
<u>Methyl Propionate</u>	<u>0.71</u>	<u>*</u>
<u>Methyl Pyrrolidone (1-Methyl-2-Pyrrolidone)</u>	<u>2.56</u>	<u>*</u>
<u>Methyl T-Amyl Ether</u>	<u>2.14</u>	<u>*</u>
<u>Methyl T-Butyl Ether</u>	<u>0.78</u>	<u>*</u>
<u>Methyl T-Butyl Ketone</u>	<u>0.78</u>	<u>*</u>
<u>Methylene Chloride (Dichloromethane)</u>	<u>0.07</u>	<u>*</u>
<u>Methylene Diphenylene Diisocyanate</u>	<u>0.79</u>	<u>*</u>
<u>Methylvinyl Ketone</u>	<u>8.73</u>	<u>*</u>
<u>Monochlorobenzene</u>	<u>0.36</u>	<u>*</u>
<u>Monoisopropanol Amine (1-Amino-2-Propanol)</u>	<u>19.17</u>	<u>*</u>
<u>Morpholine**</u>	<u>15.43</u>	<u>*</u>
<u>Naphthalene</u>	<u>3.26</u>	<u>*</u>
<u>N-Butane</u>	<u>1.33</u>	<u>*</u>
<u>N-Butoxy-2-Propanol</u>	<u>2.70</u>	<u>*</u>
<u>N-Butyl Acetate</u>	<u>0.89</u>	<u>*</u>
<u>N-Butyl Benzene</u>	<u>1.97</u>	<u>*</u>
<u>N-Butyl Bromide</u>	<u>0.60</u>	<u>*</u>
<u>N-Butyl Butyrate</u>	<u>1.12</u>	<u>*</u>
<u>N-Butyl Formate</u>	<u>0.95</u>	<u>*</u>
<u>N-C16</u>	<u>0.52</u>	<u>*</u>
<u>N-C17</u>	<u>0.49</u>	<u>*</u>
<u>N-C18</u>	<u>0.47</u>	<u>*</u>
<u>N-C19</u>	<u>0.44</u>	<u>*</u>
<u>N-C20</u>	<u>0.42</u>	<u>*</u>
<u>N-C21</u>	<u>0.40</u>	<u>*</u>
<u>N-C22</u>	<u>0.38</u>	<u>*</u>
<u>N-Decane</u>	<u>0.83</u>	<u>*</u>
<u>N-Dodecane</u>	<u>0.66</u>	<u>*</u>
<u>Neopentane</u>	<u>0.69</u>	<u>*</u>
<u>N-Heptane</u>	<u>1.28</u>	<u>*</u>
<u>N-Heptyl Acetate</u>	<u>0.73</u>	<u>*</u>
<u>N-Hexyl Acetate</u>	<u>0.87</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>Nitrobenzene</u>	<u>0.07</u>	<u>*</u>
<u>Nitroethane</u>	<u>12.79</u>	<u>*</u>
<u>Nitromethane</u>	<u>7.86</u>	<u>*</u>
<u>N-Methyl Acetamide</u>	<u>19.70</u>	<u>*</u>
<u>N-Nonane</u>	<u>0.95</u>	<u>*</u>
<u>N-Nonyl Acetate</u>	<u>0.58</u>	<u>*</u>
<u>N-Octane</u>	<u>1.11</u>	<u>*</u>
<u>N-Octyl Acetate</u>	<u>0.64</u>	<u>*</u>
<u>Nonyl Cyclohexane</u>	<u>0.54</u>	<u>*</u>
<u>N-Pentadecane</u>	<u>0.56</u>	<u>*</u>
<u>N-Pentanol (Amyl Alcohol)</u>	<u>3.35</u>	<u>*</u>
<u>N-Propanol (N-Propyl Alcohol)</u>	<u>2.74</u>	<u>*</u>
<u>N-Propyl Benzene</u>	<u>2.20</u>	<u>*</u>
<u>N-Propyl Bromide</u>	<u>0.35</u>	<u>*</u>
<u>N-Propyl Butyrate</u>	<u>1.17</u>	<u>*</u>
<u>N-Propyl Formate</u>	<u>0.93</u>	<u>*</u>
<u>N-Propyl Propionate</u>	<u>0.93</u>	<u>*</u>
<u>N-Tetradecane</u>	<u>0.58</u>	<u>*</u>
<u>N-Tridecane</u>	<u>0.62</u>	<u>*</u>
<u>N-Undecane</u>	<u>0.74</u>	<u>*</u>
<u>Octanal</u>	<u>3.65</u>	<u>*</u>
<u>Octyl Cyclohexane</u>	<u>0.60</u>	<u>*</u>
<u>Oxo-Hexyl Acetate</u>	<u>1.03</u>	<u>*</u>
<u>Oxo-Heptyl Acetate</u>	<u>0.97</u>	<u>*</u>
<u>Oxo-Octyl Acetate</u>	<u>0.96</u>	<u>*</u>
<u>Oxo-Nonyl Acetate</u>	<u>0.85</u>	<u>*</u>
<u>Oxo-Decyl Acetate</u>	<u>0.83</u>	<u>*</u>
<u>Oxo-Dodecyl Acetate</u>	<u>0.72</u>	<u>*</u>
<u>Oxo-Tridecyl Acetate</u>	<u>0.67</u>	<u>*</u>
<u>PCBTF (P-Trifluoromethyl-Cl-Benzene)</u>	<u>0.11</u>	<u>*</u>
<u>Pentanal (Valeraldehyde)</u>	<u>5.76</u>	<u>*</u>
<u>Pentane</u>	<u>1.54</u>	<u>*</u>
<u>Pentyl Cyclohexane</u>	<u>0.91</u>	<u>*</u>
<u>Pentylbenzene (Isomers)</u>	<u>4.96</u>	<u>*</u>
<u>Peracetic Acid (Peroxyacetic Acid)</u>	<u>12.62</u>	<u>*</u>
<u>Perchloroethylene</u>	<u>0.04</u>	<u>*</u>
<u>Phenol</u>	<u>1.82</u>	<u>*</u>
<u>Pine Oil</u>	<u>4.29</u>	<u>*</u>
<u>Propane</u>	<u>0.56</u>	<u>*</u>
<u>Propionaldehyde</u>	<u>7.89</u>	<u>*</u>
<u>Propionic Acid</u>	<u>1.16</u>	<u>*</u>
<u>Propyl Acetate</u>	<u>0.87</u>	<u>*</u>
<u>Propyl Cyclohexane</u>	<u>1.47</u>	<u>*</u>
<u>Propyl Cyclopentane</u>	<u>1.91</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>Propylbenzene (Isomers)</u>	<u>6.12</u>	<u>*</u>
<u>Propylene (Propene)</u>	<u>11.58</u>	<u>*</u>
<u>Propylene Carbonate</u>	<u>0.25</u>	<u>*</u>
<u>Propylene Carbonate (4-Methyl-1,3-Dioxolan-2-One)</u>	<u>0.25</u>	<u>*</u>
<u>Propylene Glycol</u>	<u>2.75</u>	<u>*</u>
<u>Propylene Glycol Monoethyl Ether (1-Ethoxy-2-Propanol)</u>	<u>3.25</u>	<u>*</u>
<u>Propylene Glycol Monomethyl Ether (1-Methoxy-2-Propanol)</u>	<u>2.62</u>	<u>*</u>
<u>Propylene Glycol Monomethyl Ether Acetate (1-Methoxy-2-Propanol Acetate)</u>	<u>1.71</u>	<u>*</u>
<u>Propylene Glycol Monopropyl Ether (1-Propoxy-2-Propanol)</u>	<u>2.86</u>	<u>*</u>
<u>Propylene Glycol T-Butyl Ether (1-Tert-Butoxy-2-Propanol)</u>	<u>1.71</u>	<u>*</u>
<u>Propylene Oxide</u>	<u>0.32</u>	<u>*</u>
<u>Sabinene</u>	<u>3.67</u>	<u>*</u>
<u>S-Butyl Acetate</u>	<u>1.43</u>	<u>*</u>
<u>S-Butyl Benzene</u>	<u>1.97</u>	<u>*</u>
<u>Styrene</u>	<u>1.95</u>	<u>*</u>
<u>Terpene</u>	<u>3.79</u>	<u>*</u>
<u>Tert-Butyl Acetate</u>	<u>0.22</u>	<u>*</u>
<u>Tert-Butyl Alcohol</u>	<u>0.45</u>	<u>*</u>
<u>Tetrahydrofuran</u>	<u>4.95</u>	<u>*</u>
<u>Tetrahydropyran</u>	<u>3.81</u>	<u>*</u>
<u>Tetralin</u>	<u>2.83</u>	<u>*</u>
<u>Tolualdehyde</u>	<u>0.00</u>	<u>*</u>
<u>Toluene</u>	<u>3.97</u>	<u>*</u>
<u>Toluene Diisocyanate</u>	<u>0.00</u>	<u>*</u>
<u>Toluene Isocyanate, Para-</u>	<u>0.93</u>	<u>*</u>
<u>Trans 2,2-Dimethyl 3-Hexene</u>	<u>5.97</u>	<u>*</u>
<u>Trans 2,5-Dimethyl 3-Hexene</u>	<u>5.44</u>	<u>*</u>
<u>Trans 3-Methyl-2-Hexene</u>	<u>14.17</u>	<u>*</u>
<u>Trans 4,4-Dimethyl-2-Pentene</u>	<u>6.99</u>	<u>*</u>
<u>Trans 4-Methyl-2-Hexene</u>	<u>7.88</u>	<u>*</u>
<u>Trans-1,2-Dichloroethene</u>	<u>0.81</u>	<u>*</u>
<u>Trans-2-Butene</u>	<u>13.91</u>	<u>*</u>
<u>Trans-2-Heptene</u>	<u>7.33</u>	<u>*</u>
<u>Trans-2-Hexene</u>	<u>8.44</u>	<u>*</u>
<u>Trans-2-Pentene</u>	<u>10.23</u>	<u>*</u>
<u>Trans-3-Heptene</u>	<u>6.96</u>	<u>*</u>
<u>Trans-3-Hexene</u>	<u>8.16</u>	<u>*</u>
<u>Trans-3-Octene</u>	<u>6.13</u>	<u>*</u>
<u>Trans-4-Decene</u>	<u>4.50</u>	<u>*</u>
<u>Trans-4-Nonene</u>	<u>5.23</u>	<u>*</u>
<u>Trans-4-Octene</u>	<u>5.90</u>	<u>*</u>
<u>Trans-5-Dodecene</u>	<u>3.74</u>	<u>*</u>
<u>Trans-5-Pentadecene</u>	<u>2.82</u>	<u>*</u>
<u>Trans-5-Tetradecene</u>	<u>3.08</u>	<u>*</u>

<u>Organic Compound</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>Trans-5-Tridecene</u>	<u>3.38</u>	<u>*</u>
<u>Trans-5-Undecene</u>	<u>4.23</u>	<u>*</u>
<u>Trichloroethylene</u>	<u>0.60</u>	<u>*</u>
<u>Triethanolamine</u>	<u>2.76</u>	<u>*</u>
<u>Triethyl Amine**</u>	<u>16.60</u>	<u>*</u>
<u>Trimethyl Amine</u>	<u>7.06</u>	<u>*</u>
<u>Trimethylene Oxide</u>	<u>5.22</u>	<u>*</u>
<u>Tripropylene Glycol Monomethyl Ether</u>	<u>1.90</u>	<u>*</u>
<u>Vinyl Acetate</u>	<u>3.26</u>	<u>*</u>
<u>Vinyl Chloride</u>	<u>2.92</u>	<u>*</u>
<u>Xylene, Meta-</u>	<u>10.61</u>	<u>*</u>
<u>Xylene, Ortho-</u>	<u>7.49</u>	<u>*</u>
<u>Xylene, Para-</u>	<u>4.25</u>	<u>*</u>

*30 Days after the Regulation is approved by the Office of Administrative Law.

**ULMIR

94701. MIR Values for Hydrocarbon Solvents.

(a) Aliphatic Hydrocarbon Solvents

<u>Bin</u>	<u>Average Boiling Point*** (degrees F)</u>	<u>Criteria</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>1</u>	<u>80-205</u>	<u>Alkanes (< 2% Aromatics)</u>	<u>2.08</u>	<u>*</u>
<u>2</u>	<u>80-205</u>	<u>N- & Iso-Alkanes (≥ 90% and < 2% Aromatics)</u>	<u>1.59</u>	<u>*</u>
<u>3</u>	<u>80-205</u>	<u>Cyclo-Alkanes (≥ 90% and < 2% Aromatics)</u>	<u>2.52</u>	<u>*</u>
<u>4</u>	<u>80-205</u>	<u>Alkanes (2 to < 8% Aromatics)</u>	<u>2.24</u>	<u>*</u>
<u>5</u>	<u>80-205</u>	<u>Alkanes (8 to 22% Aromatics)</u>	<u>2.56</u>	<u>*</u>
<u>6</u>	<u>>205-340</u>	<u>Alkanes (< 2% Aromatics)</u>	<u>1.41</u>	<u>*</u>
<u>7</u>	<u>>205-340</u>	<u>N- & Iso-Alkanes (≥ 90% and < 2% Aromatics)</u>	<u>1.17</u>	<u>*</u>
<u>8</u>	<u>>205-340</u>	<u>Cyclo-Alkanes (≥ 90% and < 2% Aromatics)</u>	<u>1.65</u>	<u>*</u>
<u>9</u>	<u>>205-340</u>	<u>Alkanes (2 to < 8% Aromatics)</u>	<u>1.62</u>	<u>*</u>
<u>10</u>	<u>>205-340</u>	<u>Alkanes (8 to 22% Aromatics)</u>	<u>2.03</u>	<u>*</u>
<u>11</u>	<u>>340-460</u>	<u>Alkanes (< 2% Aromatics)</u>	<u>0.91</u>	<u>*</u>
<u>12</u>	<u>>340-460</u>	<u>N- & Iso-Alkanes (≥ 90% and < 2% Aromatics)</u>	<u>0.81</u>	<u>*</u>
<u>13</u>	<u>>340-460</u>	<u>Cyclo-Alkanes (≥ 90% and < 2% Aromatics)</u>	<u>1.01</u>	<u>*</u>
<u>14</u>	<u>>340-460</u>	<u>Alkanes (2 to < 8% Aromatics)</u>	<u>1.21</u>	<u>*</u>
<u>15</u>	<u>>340-460</u>	<u>Alkanes (8 to 22% Aromatics)</u>	<u>1.82</u>	<u>*</u>
<u>16</u>	<u>>460-580</u>	<u>Alkanes (< 2% Aromatics)</u>	<u>0.57</u>	<u>*</u>
<u>17</u>	<u>>460-580</u>	<u>N- & Iso-Alkanes (≥ 90% and < 2% Aromatics)</u>	<u>0.51</u>	<u>*</u>
<u>18</u>	<u>>460-580</u>	<u>Cyclo-Alkanes (≥ 90% and < 2% Aromatics)</u>	<u>0.63</u>	<u>*</u>
<u>19</u>	<u>>460-580</u>	<u>Alkanes (2 to < 8% Aromatics)</u>	<u>0.88</u>	<u>*</u>
<u>20</u>	<u>>460-580</u>	<u>Alkanes (8 to 22% Aromatics)</u>	<u>1.49</u>	<u>*</u>

*30 Days after the Regulation is approved by the Office of Administrative Law.

***Average Boiling Point = (Initial Boiling Point + Dry Point) / 2

(b) Aromatic Hydrocarbon Solvents

<u>Bin</u>	<u>Boiling Range (degrees F)</u>	<u>Criteria</u>	<u>MIR Value</u>	<u>Effective Date</u>
<u>21</u>	<u>280-290</u>	<u>Aromatic Content (100%)</u>	<u>7.37</u>	<u>*</u>
<u>22</u>	<u>320-350</u>	<u>Aromatic Content (100%)</u>	<u>7.51</u>	<u>*</u>
<u>23</u>	<u>355-420</u>	<u>Aromatic Content (100%)</u>	<u>8.07</u>	<u>*</u>
<u>24</u>	<u>450-535</u>	<u>Aromatic Content (100%)</u>	<u>5.00</u>	<u>*</u>

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