

**REGULATION 8
ORGANIC COMPOUNDS
RULE 45
MOTOR VEHICLE AND MOBILE EQUIPMENT COATING OPERATIONS**

INDEX

8-45-100 GENERAL

- 8-45-101 Description
- 8-45-110 Exemption, Original Equipment Manufacturer
- 8-45-111 Exemption, Touch-up
- 8-45-112 Exemption, Graphic Design Applications
- 8-45-113 Exemption, Military Vehicles and Ground Support Equipment
- 8-45-114 Exemption, Radiators and Engine Components
- 8-45-115 Exemption, Aerosol Paint Products
- 8-45-116 Limited Exemption, Transfer Efficiency

8-45-200 DEFINITIONS

- 8-45-201 Aerosol Paint Products
- 8-45-202 Deleted November 2, 1994
- 8-45-203 Camouflage Coating
- 8-45-204 Catalyst
- 8-45-205 Color Match
- 8-45-206 Electrostatic Application
- 8-45-207 Deleted November 2, 1994
- 8-45-208 Final Stage Manufacture
- 8-45-209 Graphic Design Application
- 8-45-210 Ground Support
- 8-45-211 Group I Vehicles
- 8-45-212 Group II Vehicles and Equipment
- 8-45-213 High-Volume, Low-Pressure (HVLV) Spray
- 8-45-214 Large/Heavy Duty Trucks
- 8-45-215 Light- and Medium-Duty Trucks and Vans
- 8-45-216 Metallic/Iridescent Topcoat
- 8-45-217 Mobile Equipment
- 8-45-218 Precoat
- 8-45-219 Pretreatment Wash Primer
- 8-45-220 Primer
- 8-45-221 Primer Sealer
- 8-45-222 Primer Surfacers
- 8-45-223 Reducer
- 8-45-224 Refinishing
- 8-45-225 Specialty Coatings
- 8-45-226 Deleted November 2, 1994
- 8-45-227 Multi Stage Topcoat System
- 8-45-228 Topcoat
- 8-45-229 Touch-up Coating
- 8-45-230 Transfer Efficiency
- 8-45-231 Volatile Organic Compound
- 8-45-232 Aerosol Paint Product
- 8-45-233 Key System Operating Parameter
- 8-45-234 Utility Body
- 8-45-235 Temporary Protective Coating
- [8-45-236 Adhesion Promoter](#)

- [8-45-237 Clear Coating](#)
- [8-45-238 Color Coating](#)
- [8-45-239 Compound-Weighted Maximum Incremental Reactivity \(CWMIR\)](#)
- [8-45-240 Maximum Incremental Reactivity \(MIR\)](#)
- [8-45-241 Mobile Refinishing Operation](#)
- [8-45-242 Mobile Refinishing Operator](#)
- [8-45-243 Motor Vehicle](#)
- [8-45-244 Multicolor Coating](#)
- [8-45-245 Percent Ozone Reduction \(POR\)](#)
- [8-45-246 Reactivity Limit](#)
- [8-45-247 Single-Stage Coating](#)
- [8-45-248 Solvent](#)
- [8-45-249 Spot Repair](#)
- [8-45-250 Truck Bed Liner Coating](#)
- [8-45-251 Underbody Coating](#)
- [8-45-252 Uniform Finish Coating](#)

8-45-300 STANDARDS

- [8-45-301 Automotive Coating Limits](#)
- [8-45-302 Deleted October 6, 1993](#)
- [8-45-303 Transfer Efficiency](#)
- [8-45-304 Prohibition of Specification](#)
- [8-45-305 Prohibition of Sale \[or Manufacture\]\(#\)](#)
- [8-45-306 ~~Moved to Section 8-45-406 Compliance Statement Requirement~~](#)
- [8-45-307 Deleted November 2, 1994](#)
- [8-45-308 Surface Preparation and Solvent Loss Minimization](#)
- [8-45-309 Deleted October 6, 1993](#)
- [8-45-310 Deleted October 6, 1993](#)
- [8-45-311 Small Production/Utility Bodies](#)
- [8-45-312 Specialty Coatings](#)
- [8-45-313 Temporary Protective Coating](#)
- [8-45-314 Precoat Limitation](#)
- [8-45-315 HVLP Marking](#)
- [8-45-316 Filtration](#)
- [8-45-317 Most Restrictive VOC Limit](#)

8-45-400 ADMINISTRATIVE REQUIREMENTS

- [8-45-401 Deleted November 2, 1994](#)
- [8-45-402 Reporting Requirements for Mobile Refinishing Operators](#)
- [8-45-403 Registration for Mobile Refinishing Operations](#)
- [8-45-404 VOC Labeling Requirements](#)
- [8-45-405 CWMIR Labeling Requirements](#)
- [8-45-406 Compliance Statement Requirement](#)
- [8-45-407 Formulation Data](#)

8-45-500 MONITORING AND RECORDS

- [8-45-501 Coating Records](#)
- [8-45-502 Air Pollution Abatement Equipment, Recordkeeping Requirements](#)
- [8-45-503 Precoat Limitation Records](#)
- [8-45-504 Sales Records](#)
- [8-45-505 Recordkeeping Requirements for Prohibition of Sale](#)
- [8-45-506 Recordkeeping Requirements for Clients of Mobile Refinishing Operators](#)

8-45-600 MANUAL OF PROCEDURES

8-45-601	Analysis of Samples
8-45-602	Determination of Emissions
8-45-603	Deleted October 6, 1993
8-45-604	Determination of Acid Content
<u>8-45-605</u>	<u>Determination of Methyl Acetate, Acetone, t-Butyl Acetate, and PCBTF Contents</u>
<u>8-45-606</u>	<u>Alternative Test Methods</u>
<u>8-45-607</u>	<u>Determination of VOC Content of Coatings or Solvents</u>
<u>8-45-608</u>	<u>Determination of Alternative Compliance</u>

**REGULATION 8
ORGANIC COMPOUNDS
RULE 45
MOTOR VEHICLE AND MOBILE EQUIPMENT COATING OPERATIONS**

(Adopted June 7, 1989)

8-45-100 GENERAL

- 8-45-101 Description:** The purpose of this Rule is to limit the emission of volatile organic compounds from the finishing or refinishing of motor vehicles, mobile equipment and their parts and components.
- 8-45-110 Original Equipment Manufacturer:** The provisions of this Rule shall not apply to Original Equipment Manufacturer (OEM) coatings applied at manufacturing or assembly plants ~~which~~ that are subject to Regulation 8, Rule 13.
- 8-45-111 Exemption, Touch-up:** The provisions of this Rule shall not apply to touch-up operations.
- 8-45-112 Exemption, Graphic Design Applications:** The provisions of this Rule shall not apply to graphic design applications.
- 8-45-113 Exemption, Military Vehicles and Ground Support Equipment:** The provisions of this Rule shall not apply to the coating of military vehicles and ground support equipment ~~which~~ that is subject to the provisions of Regulation 8, Rule 19. Military vehicles include tanks and armored personnel carriers but do not include passenger vehicles.
(Amended November 2, 1994)
- 8-45-114 Exemption, Radiators and Engine Components:** The provisions of this Rule shall not apply to the coating of radiators and engine components ~~which~~ that is subject to the provisions of Regulation 8, Rule 19.
(Amended November 2, 1994)
- 8-45-115 Exemption, Aerosol Paint Products:** The provisions of this Rule shall not apply to the application of aerosol paint products ~~which~~ that is subject to the provisions of Regulation 8, Rule 49.
(Adopted June 20, 1990)
- 8-45-116 Limited Exemption, Transfer Efficiency:** The provisions of Section 8-45-303 shall not apply to the application of high viscosity or thixotropic coatings with application equipment that is supplied with and is an integral part of the coating container or to the application of corrosion protective coatings to enclosed interior spaces.
(Adopted November 2, 1994)

8-45-300 DEFINITIONS

- 8-45-201 Anitglare/Safety Coating:** A coating ~~which~~ that minimizes light reflection for safety purposes.
(Amended November 2, 1994)
- 8-45-202 Deleted November 2, 1994**
- 8-45-203 Camouflage Coating:** A coating applied on motor vehicles to conceal such vehicles from detection-
- 8-45-204 Catalyst:** A substance whose presence enhances the reaction between chemical compounds.
- 8-45-205 Color Match:** The ability of a repair coating to blend into an existing coating so that color difference is not visible.
- 8-45-206 Electrostatic Application:** The application of charged atomized paint droplets ~~which~~ that are deposited by electrostatic attraction.
- 8-45-207 Deleted November 2, 1994**
- 8-45-208 Final Stage Manufacture:** Where an incomplete vehicle chassis is delivered to a manufacturer for installation and paint of a truck body and/or components to form a completed vehicle.
- 8-45-209 Graphic Design Application:** The application of logos, letters, numbers and graphics to a painted surface, with or without the use of a template.
- 8-45-210 Ground Support:** Vehicles used in support of aircraft activities at airports.

- 8-45-211 Group I Vehicles:** Passenger cars, large/heavy duty truck cabs and chassis, light- and medium-duty trucks and vans, and motorcycles.
- 8-45-212 Group II Vehicles and Equipment:** Public transit buses and mobile equipment.
- 8-45-213 High-Volume, Low-Pressure (HVLP) Spray:** Equipment used to apply coatings by means of a gun ~~which that~~ is designed to be operated and ~~which that~~ is operated between 0.1 and 10 pounds per square inch, gauge (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.
(Amended October 6, 1993; November 2, 1994)
- 8-45-214 Large/Heavy Duty Trucks:** Any truck having a manufacturer's gross vehicle weight rating of over 10,000 pounds.
- 8-45-215 Light and Medium-Duty Trucks and Vans:** Any truck or van having a manufacturer's gross vehicle weight rating of 10,000 pounds or less.
- 8-45-216 Metallic/Iridescent Topcoat:** Any coating ~~which that~~ contains more than 5 g/l (.042 lb/gal) of metal or iridescent particles, as identified on a technical or material safety data sheet, as applied, where such particles are visible in the dried film.
- 8-45-217 Mobile Equipment:** Any equipment ~~which that~~ may be drawn or is capable of being driven on rails or on a roadway, including, but not limited to, trains, railcars, truck bodies, truck trailers, camper shells, mobile cranes, bulldozers, street cleaners, golf carts and implements of husbandry or agriculture. (Amended November 2, 1994)
- 8-45-218 Precoat:** Any coating ~~which that~~ is applied to bare metal primarily to deactivate the metal surface prior to application of a subsequent primer surfacer. Effective April 1, 1995, a precoat shall be a coating that dries by oxidation or chemical polymerization.
(Amended November 2, 1994; January 6, 1999)
- 8-45-219 Pretreatment Wash Primer:** Any coating ~~which that~~ contains a minimum of 0.5% acid by weight; ~~that~~ is necessary to provide surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion.
- 8-45-220 Primer:** Any coating ~~applied prior to the application of a topcoat for the purpose of corrosion resistance and adhesion of the topcoat that is labeled and formulated for application to a substrate on which a subsequent coating is applied. A primer may provide 1) a bond between the substrate and subsequent coats, 2) corrosion resistance, 3) a smooth substrate surface, or 4) resistance to penetration or subsequent coats. Primers surfacers are primers and may be pigmented.~~
(Amended November 2, 1994; January 6, 1999)
- 8-45-221 Primer Sealer:** Any coating ~~applied for the purpose of sealing the underlying metal or coating system prior to the application of a topcoat that is labeled and formulated for application prior to the application of a color coating or single stage top coat for the purpose of color uniformity, or to promote the ability of the underlying coating to resist penetration by the color coating.~~
(Amended November 2, 1994)
- 8-45-222 Primer Surfacer:** Any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and ~~which that~~ promotes a uniform surface by filling in surface imperfections.
- 8-45-223 Reducer:** The solvent used to thin enamel.
- 8-45-224 Refinishing:** Any coating of vehicles, their parts and components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and ~~which that~~ is subsequent to the original coating applied at an Original Equipment Manufacturing (OEM) plant coating assembly line.
- 8-45-225 Specialty Coatings:** Unique coatings and compliant coatings with additives ~~which that~~ are necessary due to unusual job performance requirements. Said coatings include, but are not limited to, adhesion promoters, uniform finish blenders, elastomeric materials, gloss flatteners, bright metal trim repair, and anti-glare/safety coatings.
(Amended November 2, 1994)
- 8-45-226 Deleted November 2, 1994**
- 8-45-227 Multi-Stage Topcoat System:** A topcoat system composed of either a basecoat / clearcoat, a basecoat/midcoat/clearcoat, or a groundcoat.
Until January 1, 2010, the VOC content of a basecoat/clearcoat coating system shall be calculated according to the following formula:

$$VOC_{MS} = \frac{VOC_{bc} + 2VOC_{cc}}{3}$$

The VOC content of a 3-Stage coating system shall be calculated according to the following formula:

$$VOC_{MS} = \frac{VOC_{bc} + VOC_{mc} + 2VOC_{cc}}{4}$$

The VOC content of a 4-Stage coating system shall be calculated according to the following formula:

$$VOC_{MS} = \frac{VOC_{gc} + VOC_{bc} + VOC_{mc} + 2VOC_{cc}}{5}$$

Where:

VOC_{MS} is the sum of the VOC content, as applied, and used to determine compliance with the standards in Section 8-45-301.

VOC_{gc} is the VOC content, as applied, of a pigmented groundcoat, basecoat or tinted primer sealer.

VOC_{bc} is the VOC content, as applied, of a pigmented basecoat or translucent midcoat.

VOC_{mc} is the VOC content, as applied, of a translucent midcoat or tinted clearcoat.

$2VOC_{cc}$ is two times the VOC content, as applied, of a transparent clearcoat.

(Amended November 2, 1994)

8-45-228 Topcoat: Any coating applied over a primer, primer system, or an original OEM finish for the purpose of protection or appearance. For the purposes of this Rule, the VOC limits for solid color and metallic/iridescent topcoats are for single stage applications. [Topcoats included color coats, clear coats, and single-stage coats.](#) A multi stage topcoat may be either a solid or metallic/iridescent coat, the VOC_{MS} of a multi stage topcoat system will determine compliance with the VOC standards in Section 8-45-301.1 or 301.2.

(Amended November 2, 1994)

8-45-229 Touch-up Coating: A coating applied by brush or air brush to repair minor surface damage and imperfections.

(Amended June 20, 1990)

8-45-230 Transfer Efficiency: The ratio of the amount of coating solids adhering to the object being coated to the total amount of coating solids used in the application process, expressed as a percentage.

8-45-231 Volatile Organic Compound: Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) ~~which~~ [that](#) would be emitted during use, application, curing or drying of a solvent or surface coating.

231.1 For purposes of calculating VOC content of a coating, any water or any of the following compounds:

acetone

parachlorobenzotrifluoride (PCBTF)

cyclic, branched or linear, fully methylated siloxanes

shall not be considered to be part of the coating.

231.2 For the purposes of calculating the VOC content of surface preparation solvent subject to Section 8-45-308.4 or temporary protective coating, any water shall be considered to be part of the product. The following compounds:

acetone

parachlorobenzotrifluoride (PCBTF)

cyclic, branched or linear, completely methylated siloxanes (VMS)

shall not be considered part of the VOC content of the solvent

(Amended Nov. 2, 1994; Dec. 20, 1995; Nov. 6, 1996)

8-45-232 Aerosol Paint Product: A mixture of resins, pigments, liquid solvents and gaseous propellants, packaged in a disposable can for hand-held application.

(Adopted June 20, 1990)

8-45-233 Key System Operating Parameter: An air pollution abatement operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the

standards in Section 8-45-301, but not limited to, temperatures, pressure drops, and air flow rates.

(Adopted June 1, 1994)

8-45-234 Utility Body: A body designed for and mounted on a light or medium duty truck or van. (Adopted November 2, 1994)

8-45-235 Temporary Protective Coating: A coating applied for the purpose of protecting adjacent areas to that being painted from overspray. The temporary protective coating is removed after primer or topcoat application. (Adopted November 2, 1994)

8-45-236 Adhesion Promoter: A coating that is labeled and formulated to be applied to uncoated plastic surfaces to facilitate bonding of subsequent coatings, and on which, a subsequent coating is applied.

8-45-237 Clear Coating: Any coating that contains no pigments and is labeled and formulated of application over a color coating or clear coating.

8-45-238 Color Coating: Any pigmented coating that requires a subsequent clear coating. Color coatings include metallic/iridescent color coatings and exclude adhesion promoters, primers, and multi-color coatings.

8-45-239 Compound-Weighted Maximum Incremental Reactivity (CWMIR): The sum of all weighted-MIR for all volatile organic compounds (VOC) in a product subject to this rule. The CWMIR is the total reactivity, expressed to hundredths of a gram of ozone formed per gram of automotive coating, and calculated according to the following equation:

Compound-Weighted MIR:

$$CWMIR = \sum_{i=1}^n Wtd - MIR_i$$

Where:

MIR = Maximum Incremental Reactivity (MIR), as specified Section 8-45-240;

Wtd-MIR = Weighted MIR (Wtd-MIR) = MIR of each VOC in a product multiplied by the weight fraction of that VOC in grams per gram;

1,2,3,...,n = each VOC in the product up to the total n VOCs in the product.

8-45-240 Maximum Incremental Reactivity (MIR): A measure of the ozone-forming potential of an organic compound or solvent as specified in Sections 94700 and 94701, Title 17, California Code of Regulations.

8-45-241 Mobile Refinishing Operation: Any refinishing operation that may change location or address between operations.

8-45-242 Mobile Refinishing Operator: Any person who engages in mobile refinishing operations.

8-45-243 Motor Vehicle: Any self-propelled vehicle, including, but not limited to, cars, trucks, buses, golf carts, vans, motorcycles, tanks, and armored personnel carriers.

8-45-244 Multi-Color Coating: Any coating that exhibits more than one color in the dried film after a single application, is packaged in a single container, and hides surfaces defects on areas of heavy use, and which is applied over a primer or adhesion promoter.

8-45-245 Percent Ozone Reduction (POR): The percent reduction in ozone formed, as set forth in Section 8-45-301.4 and is used to calculate the compound-weighted maximum incremental reactivity limit for each coating product category according to the following equations:

$$CWMIR_{new} = CWMIR_{existing} \left(1 - \frac{POR}{100} \right) \frac{Ws_{new}}{Ws_{existing}}$$

Where:

CWMIR_{new} = The compound-weighted maximum incremental reactivity (CWMIR) as defined in Section 8-45-239 for the new product;

CWMIR_{existing} = The compound-weighted maximum incremental reactivity (CWMIR) as defined in Section 8-45-239 for an existing

automotive coating or automotive coating component in (grams ozone formed per gram of product).

POR = The minimum percent reduction set forth in Section 8-45-301.4 for each coating product.

Ws_{existing} = The weight of solids in the existing product, in grams.

Ws_{new} = The weight of solids in the new product, in grams.

The most recent published MIR values published by the California Air Resources Board as specified in Section 94700 and 94701, Title 17, California Code of Regulations shall be used.

8-45-246 **Reactivity Limit:** The maximum compound-weighted MIR allowed in an automotive coating or automotive coating component that is subject to the limits specified in Section 8-45-301.4, expressed in g O₃/g product.

8-45-247 **Single-Stage Coating:** Any pigmented coating, excluding primers and multi-color coatings, labeled and formulated for application without a subsequent clear coat. Single-stage coatings include single-stage metallic/iridescent coatings.

8-45-248 **Solvent:** Any VOC-containing fluid used to perform cleaning operations or as a reducer.

8-45-249 **Spot Repair:** Repair of an area on a motor vehicle, piece or mobile equipment, or associated parts or components of less than 1.0 square foot (929 square centimeters).

8-45-250 **Truck Bed Liner Coating:** Any coating, excluding clear, color, multi-color, and single-stage coatings, labeled and formulated for application to a truck bed to protect it from surface abrasion.

8-45-251 **Underbody Coating:** Any coating labeled and formulated for application to wheel wells, the inside of door panels or fenders, the underside of a trunk or hood, or the underside of the motor vehicle.

8-45-252 **Uniform Finish Coating:** Any coating labeled and formulated for application to the area around a spot repair for the purpose of blending a color of a repaired area or clear coat to match the appearance of an adjacent area's existing coating.

8-45-300 STANDARDS

8-45-301 **Coating Limits:** ~~Effective on the dates specified, a~~Any person who applies coatings to Group I or II vehicles, mobile equipment, their parts and components, shall comply with Subsections ~~8-45-~~301.1 or 301.2 below:

301.1 Group I Vehicles: Until January 1, 2009, aA person shall not refinish Group I vehicles, their parts and components, using any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating applied, excluding water and exempt solvents, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85% and ~~which~~ meets the requirements of Regulation 2, Rule:

	April 1, 1995 VOC	July 1, 1999 VOC
Pretreatment Wash Primer	780 g/l (6.5 lbs/gal)	
Precoat	600 g/l (5.0 lbs/gal) 580 g/l (4.8 lb/gal)	580 g/l (4.8 lb/gal)
Primer/Primer Surfacer	250 g/l (2.1 lbs/gal)	
Primer Sealer	420 g/l (3.5 lbs/gal)	
Solid Color Topcoat	420 g/l (3.5 lbs/gal)	
Metallic/Iridescent Topcoat	520 g/l (4.3 lbs/gal)	
Multi -Stage Topcoat System	540 g/l (4.5 lbs/gal)	

301.2 Group II Vehicles and Mobile Equipment: Until January 1, 2009, aA person shall not finish or refinish Group II vehicles and equipment or their parts and components using any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating

applied, excluding water and exempt solvents, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85% and ~~which~~ meets the requirements of Regulation 2, Rule 1:

	April 1, 1995 VOC	July 1, 1999 VOC
Pretreatment Wash Primer	780 g/l (6.5 lbs/gal)	
Precoat	600 g/l (5.0 lbs/gal) 580 g/l (4.8 lb/gal)	580 g/l (4.8 lb/gal)
Primer/Primer Surfacer	250 g/l (2.1 lbs/gal)	
Primer Sealer	340 g/l (2.8 lbs/gal)	
Topcoat	420 g/l (3.5 lbs/gal)	
Metallic/Iridescent Topcoat	420 g/l (3.5 lbs/gal)	
Camouflage	420 g/l (3.5 lbs/gal)	

(Amended Oct. 6, 1993; June 1, 1994; Nov. 2, 1994; Jan. 6, 1999)

301.3 Effective on the dates specified, no person shall finish or refinish Group I or Group II vehicles and equipment or their parts and components using any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating applied, excluding water and exempt solvents in excess of the following limits unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85% and which meets the requirements of Regulation 2, Rule 1:

<u>Coating Product</u>	<u>January 1, 2009</u> VOC	<u>January 1, 2010</u> VOC
<u>Adhesion Promoter</u>	<u>840 g/l (7.0 lbs/gal)</u>	<u>540 g/l (4.5 lb/gal)</u>
<u>Clear Coating</u>	<u>250 g/l (2.1 lbs/gal)</u>	
<u>Color Coating</u>	<u>420 g/l (3.5 lbs/gal)</u>	
<u>Multi-Color Coating</u>	<u>680 g/l (5.7 lbs/gal)</u>	
<u>Pretreatment Coating</u>	<u>660 g/l (5.5 lbs/gal)</u>	
<u>Primer</u>	<u>250 g/l (2.1 lbs/gal)</u>	
<u>Primer Sealer</u>	<u>340 g/l (2.8 lbs/gal)</u>	<u>250 g/l (2.1 lbs/gal)</u>
<u>Single-Stage Coating</u>	<u>420 g/l (3.5 lbs/gal)</u>	<u>340 g/l (2.8 lbs/gal)</u>
<u>Temporary Protective Coating</u>	<u>60 g/l (0.5 lb/gal)</u>	
<u>Truck Bed Liner Coating</u>	<u>310 g/l (2.6 lbs/gal)</u>	
<u>Underbody Coating</u>	<u>430 g/l (3.6 lbs/gal)</u>	
<u>Uniform Finish Coating</u>	<u>540 g/l (4.5 lbs/gal)</u>	
<u>Any Other Coating Type</u>	<u>250 g/l (2.1 lbs/gal)</u>	

301.4 Alternative Compliance Option – Compound-Weighted MIR (CWMIR) Limits: Effective January 1, 2009, in lieu of compliance with Section 8-45-301.3, a manufacturer may elect to comply with an alternate, reactivity-based standard for any coating product subject to this rule. Each coating product shall achieve a percent ozone reduction (POR) of the CWMIR, calculated pursuant to Section 8-45-245 for each coating product category that is no less than the percent reductions listed under Column I, or meet the maximum CWMIR limits listed under Column II:

Groups I & II Vehicles and Mobile Equipment:

<u>Coating Product</u>	<u>Column I</u> <u>January 1, 2009</u> <u>Percent Reduction in</u> <u>CWMIR</u>	<u>Column II</u> <u>January 1, 2009</u> <u>Maximum CWMIR</u> <u>(grams ozone per</u> <u>gram product)</u>
<u>Adhesion Promoter</u>	<u>78</u>	<u>0.60</u>
<u>Clear Coating</u>	<u>60</u>	<u>0.60</u>

Color Coating	68	0.35
Multi-Color Coating	0	0.35
Pretreatment Coating	59	1.80
Primer	58	0.60
Primer Sealer	40	0.25
Single-Stage Coating	43	0.35

Any coating will be assumed to be subject to the VOC limits set forth in Section 8-45-301.3 unless the manufacturer complies with Section 8-45-404.

8-45-302 Deleted October 6, 1993

8-45-303 Transfer Efficiency: A person shall not apply any coating to any Group I or II vehicles or mobile equipment or their parts and components unless one of the following methods is used:

- 303.1 Electrostatic application equipment, operated in accordance with the manufacturer's recommendations;
- 303.2 High-Volume, Low-Pressure (HVLP) spray equipment, operated in accordance with the manufacturer's recommendations; or
- 303.3 Any ~~other~~ alternative coating application ~~which~~ that achieves a transfer efficiency equivalent to, or higher than, the application methods listed in subsection 8-45-303.1 or 303.2. Prior written approval from the APCO shall be obtained for each ~~equivalent~~ alternative method used.

(Amended October 6, 1993; November 2, 1994)

8-45-304 Prohibition of Specification: No person shall solicit or require for use or specify the application of a coating on a Group I or II vehicle, mobile equipment, or part or component thereof if such use or application results in a violation of the provisions of this Rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating ~~which~~ that is subject to the provisions of this Rule is to be applied to any motor vehicle, mobile equipment, or part or component at any physical location within the District.

8-45-305 Prohibition of Sale or Manufacture: ~~A~~ No person shall supply, ~~not~~ offer for sale, sell, manufacture, blend, repackage for sale within the District, ~~or~~ ship into the District any coating if such product is prohibited by any of the provisions of this Rule, unless the coating is for use exclusively within an approved emissions control system. The prohibition of this Section shall apply to the sale of any coating ~~which~~ that will be applied at any physical location within the District.

(Amended November 2, 1994)

8-45-306 Moved to Section 8-45-406 ~~Compliance Statement Requirement:~~ ~~The manufacturer of coatings subject to this Rule shall include a designation of VOC (as defined in Section 8-45-231) as supplied, including coating components, expressed in grams per liter or pounds per gallon, excluding water and exempt solvents, on data sheets.~~

8-45-307 Deleted November 2, 1994

8-45-308 Surface Preparation and Solvent Loss Minimization: Any person using organic solvent for surface preparation and cleanup or mixing, using or disposing of coating or stripper containing organic solvent:

- 308.1 Shall close containers used for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.
- 308.2 Shall close containers of fresh or spent solvent, coating, catalyst, thinner, reducer, or solvent when not in use.
- 308.3 Shall not use organic compounds for the cleanup of spray equipment, including paint lines, unless equipment for collecting the organic compounds and minimizing their evaporation to the atmosphere is used.
- 308.4 Effective until January 1, 2009, ~~April 1, 1995~~, the VOC content of surface preparation solvent shall not exceed 72 g/l (0.6 lb/gal). This limit shall not apply to surface preparation solvent applied from a hand held spray bottle. The VOC content of surface preparation solvent used to clean plastic parts shall not exceed 780 g/l (6.5 lbs/gal).

308.5 Effective January 1, 2009, each solvent present at any automotive refinishing facility shall not exceed a VOC content of 25 grams per liter.

(Amended November 2, 1994).

8-45-309 Deleted October 6, 1993

8-45-310 Deleted October 6, 1993

8-45-311 Small Production/Utility Bodies: Until January 1, 2009 aA person shall not coat utility bodies where the coating must match that of the vehicles upon which they will be mounted using any coating with a VOC content in excess of the standards set forth in Subsection 8-45-301.1, provided production is less than 20 vehicles per day.

8-45-312 Specialty Coatings: Until January 1, 2009 aA person shall not use any specialty coating with a VOC content in excess of 840 g/l (7.0 lbs/gal), as applied, excluding water and exempt solvents. Use of all specialty coatings except antiglare/safety coatings shall not exceed 5.0 percent of all coatings applied, on a monthly basis.

(Amended November 2, 1994)

8-45-313 Temporary Protective Coating: A person shall not use any temporary protective coating with a VOC content in excess of 60 g/l (0.5 lbs/gal), excluding water.

(Adopted November 2, 1994)

8-45-314 Precoat Limitation: A person shall not use precoat in excess of 25%, by volume, of the amount of primer surfacer used.

(Adopted November 2, 1994; Amended January 6, 1999)

8-45-315 HVLP Marking: Effective April 1, 1995, a person shall not sell or offer for sale for use within the District any HVLP gun without a permanent marking denoting the maximum inlet air pressure in psig at which the gun will operate within the parameters specified in Section 8-45-213.

(Adopted November 2, 1994)

8-45-316 Filtration: Effective April 1, 1995, a person shall not apply single or multi-stage topcoats subject to Section 8-45-301 to any vehicle except when exhausted through a properly maintained particulate filtration media. No person shall engage in mobile coating operations unless particulate matter is captured and exhausted through properly maintained particulate filtration media. The filter system shall meet the requirements of Regulation 2, Rule 1, as necessary. (Adopted November 2, 1994)

8-45-317 Most Restrictive VOC Limit: If anywhere on the container or any automotive coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a person, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Section 8-45-301.3, then the lowest VOC content limit shall apply.

8-45-400 ADMINISTRATIVE REQUIREMENTS

8-45-401 Deleted November 2, 1994

8-45-402 Registration for Mobile Refinishing Operations: No later than January 1, 2009, any person engaging in mobile refinishing operations shall register the mobile refinishing operation in accordance with Regulation 1, Section 410. Any person registering a mobile refinishing operation shall pay the fees required, as set forth in Regulation 3.

8-45-403 Reporting Requirements for Mobile Refinishing Operators: Effective January 1, 2009, any person engaging in a mobile refinishing operation in which five vehicles or more would be refinished, shall report to the District the following information no later than 12 hours prior to the start of the refinishing operations:

403.1 The date and time when the mobile refinishing operation will occur,

403.2 The name of the facility (if appropriate) and the address where the mobile refinishing operation will occur, and

403.3 The number of vehicles to be refinished

8-45-404 VOC Labeling Requirements: Effective January 1, 2009:

404.1 The manufacturer and repacker of any automotive coating or automotive coating component subject to this rule shall include on all containers the applicable use category (or categories), and the VOC content for the coating, as supplied, expressed in grams per liter.

404.2 The manufacturer and repackger of any solvent subject to this rule shall include on all containers the VOC content for the solvent, as supplied, expressed in grams per liter.

8-45-405 CWMIR Labeling Requirements: Any manufacturer who has elected to comply with the CWMIR limits in Section 8-45-301.4 shall state on the label or the technical data sheet of the coating product "Meets BAAQMD Regulation 8, Rule 45 Reactivity Standards – Reduces Ozone formed by _____ %" or "Meets BAAQMD Regulation 8, Rule 45 Reactivity Standard of _____ grams of Ozone per gram of product" as appropriate for the product category.

8-45-406 Compliance Statement Requirement: The manufacturer of coatings subject to this Rule shall include a designation of VOC (as defined in Section 8-45-231) as supplied, including coating components, expressed in grams per liter or pounds per gallon, excluding water and exempt solvents, on data sheets.

406.1 For each individual automotive coating or automotive coating component, the manufacturer and repackager shall include the following information on product data sheets, or an equivalent medium:

- a. The VOC content for coatings, expressed in grams per liter or the compound-weighted MIR;
- b. The weight percentage of volatiles, water, and exempt compounds;
- c. The volume percentage of water and exempt compounds; and
- d. The density of the material expressed in grams per liter.

406.2 For each individual ready-to-spray mixture (based on the manufacturer's and repackager's stated mix ratio), the manufacturer and repackager shall include the following information on products data sheets, or an equivalent medium:

- a. The VOC content for coatings, expressed in grams per liter or the compound-weighted MIR;
- b. The weight percentage of volatiles, water, and exempt compounds;
- c. The volume percentage of water and exempt compounds; and
- d. The density of the material expressed in grams per liter.

406.3 The manufacturer and repackager of any solvent subject to this rule shall include the VOC content as supplied, expressed in grams per liter and the CWMIR in grams of ozone per liter, on product data sheets, or an equivalent medium.

8-45-407 Formulation Data: Any manufacturer who has elected to comply with the CWMIR limits contain in the Alternative Compliance Option set forth in Section 8-45-301.4 shall submit to the District formulation data at the request of the APCO. The formulation data shall include chemical names, CAS numbers, and concentrations in grams per liter of each coating component that is of at least 0.1 percent by weight of the formulation. The manufacturer shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code section 6250, et seq.

8-45-500 MONITORING AND RECORDS

8-45-501 Coating Records: Until January 1, 2009, aAny person subject to Sections 8-45-301.1 and 301.2 shall comply with Section 8-45-501.1 through 501.5:

501.1 Maintain and have available during an inspection a current list of coatings in use that provides all of the coating-data necessary to evaluate compliance, including the following information, as applicable:

- a. coating, catalyst and reducer used
- b. mix ratio of components used
- c. VOC content of coating as applied.

501.2 Record, on a weekly basis, the following information:

- a. coating and mix ratio of components in the coating used
- b. quantity of each coating applied

501.3 Record, on a daily basis, the following information:

- a. quantity and mix ratio of each specialty coating applied

- 501.4 Record on a monthly basis the type and amount of solvent used for cleanup and surface preparation.
- 501.5 Records shall be retained and available for inspection by the APCO for the previous 24-month period.

Effective January 1, 2009, any person who uses coatings or solvents subject to this rule shall maintain and have available at all times on site, the following:

- 501.6 A current list of all coatings and solvents used that are subject to this rule. This list shall include the following information for each coating and solvent:
- a. material name and manufacturer.
 - b. application method.
 - c. coating type (as listed in Section 8-45-301.3 or 301.4) and mix ratio specific to the coating.
 - d. VOC content for coatings as applied, or VOC content for solvents; and
 - e. whether the material is a coating or solvent.
- 501.7 Current manufacturer specification sheets, material safety data sheets, technical data sheets, or air quality data sheets, that list the VOC content for coatings of each ready-to-spray coating (based on manufacturer's stated mix ratio) and automotive coating components, and VOC content of each solvent.
- 501.8 Purchase records identifying the coating type (as listed in Section 8-45-301.3 or 301.4), name, and volume of coatings and solvents.
- 501.9 Records required by the rule shall be retained for a minimum of three years and made available for inspection upon request by the APCO for the three-year period.

(Amended November 2, 1994)

- 8-45-502 Air Pollution Abatement Equipment, Recordkeeping Requirements:** Any person operating air pollution abatement equipment to comply with Sections 8-45-301.1 ~~and 301.2~~ through 301.4, in addition to Section 8-45-501 shall record on a daily basis:

- a. coating and mix ratio of components in the coating used
- b. key system operating parameters

(Adopted June 1, 1994; Amended November 2, 1994)

- 8-45-503 Precoat Limitation Records:** Any person using precoat shall retain purchase invoices to verify compliance with Section 8-45-314. Such invoices shall be available for inspection upon request. (Adopted November 2, 1994)

- 8-45-504 Sales Records:** Any person within the District ~~selling~~ who sells, offers for sale, supplies or distributes coatings subject to this Rule shall make receipts of customer purchases available for inspection upon request. ~~Cash sales shall be recorded including the customer's name and business address, and keep a detailed log of each automotive coating supplied, sold or distributed showing:~~

- 504.1 The quantity manufactured supplied, sold, or distributed, including size and number of containers.
- 504.2 The VOC content for coatings; and
- 504.3 To whom the coatings were supplied, sold, or distributed including name, address, phone number, retail tax license number, and valid District permit number or registration number.

(Adopted November 2, 1994)

- 8-45-505 Recordkeeping Requirements for Prohibition of Sale:** Effective January 1, 2009, any person claiming an exception specified in Section 8-45-305 shall keep a detailed log of each automotive coating manufactured, blended, repackaged for sale, supplied, sold, offered for sale, or distributed showing:

- 505.1 The quantity manufactured, blended, repackaged for sale, supplied, sold, offered for sale, or distributed, including size and number of containers.
- 505.2 The VOC content for coatings;
- 505.3 To whom the coatings were supplied, sold, offered for sale, or distributed, or for whom they were manufactured, blended, or repackaged for sale including name, address, phone number, retail tax license number, and valid District permit number or registration number; and
- 505.4 The specific exception being utilized under Section 8-45-305.

- 8-45-506 Recordkeeping Requirements for Clients of Mobile Refinishing Operators:** Effective January 1, 2009, any person for whom mobile refinishing operations were conducted at least five times in any one-year period or for which 25 vehicles were refinished in any one-year period shall keep a records indicating the following:
- 506.1 The name, address, phone number, retail tax license number, and valid District registration number of each mobile refinishing operator utilized;
 - 506.2 The date(s) each mobile refinisher engaged in mobile refinishing operations;
 - 506.3 The number(s) of vehicles refinished by each mobile refinisher on the date(s) of operation.

8-45-600 MANUAL OF PROCEDURES

- 8-45-601 Analysis of Samples:** Samples of volatile organic compounds as specified in Sections 8-45-301.1 or 301.2 shall be analyzed as prescribed in the Manual of Procedures (MOP), Volume III, Method 21 or 22. Samples of volatile organic compounds as specified in Section 8-45-308.4 shall be analyzed as prescribed in the MOP, Volume III, Method 31. ~~Samples containing parachlorobenzotrifluoride shall be analyzed as prescribed in the MOP, Vol. III, Method 41.~~ Samples containing volatile methylsiloxanes shall be analyzed as prescribed in the MOP, Vol. III, Method 43.

(Amended November 2, 1994; November 6, 1996)

- 8-45-602 Determination of Emissions:** Emissions of volatile organic compounds as specified in Sections 8-45-301.1, ~~or 301.2,~~ through 301.4 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST 7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). For the purpose of determining abatement device efficiency, any acetone, PCBTF or VMS shall be included as a volatile organic compound. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Amended June 1, 1994; November 6, 1996)

- 8-45-603 Deleted October 6, 1993**

- 8-45-604 Determination of Acid Content:** Measurement of acid content as specified in Section 8-45-219 shall be determined in accordance with ASTM Test Method D-1613-85.

(Adopted October 6, 1993)

- 8-45-605 Determination of Metallic Content:** The metallic content of a coating (as specified in Section 8-45-216) shall be determined by South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coating by X-Ray" (July 1996).

- 8-45-606 Determination of Methyl Acetate, Acetone, t-Butyl Acetate, and PCBTF Contents:** The quantity of methyl acetate, acetone, t-butyl acetate, and parachlorobenzotrifluoride (as specified in Sections 8-45-231 and 264 shall be determined by using ASTM Method D6133-02: "Standard Test Method for Acetone, p-Chlorobenzotrifluoride, Methyl Acetate or t-Butyl Acetate Content of Solventborne and Waterborne Paints, Coatings, Resins, and Raw Materials by Direct Injection Into a Gas Chromatograph."

- 8-45-607 Assignment of Maximum Incremental Reactivity Values:** In order to calculate the compound-weighted maximum incremental reactivity (CWMIR) values of automotive coatings as specified in Section 301.4, the MIR values of automotive coatings are assigned as follows:

- 607.1 Any ingredient that does not contain carbon is assigned an MIR value of 0.0;
- 607.2 Any automotive coating solid, including, but not limited to, resins, pigments, plasticizers, and extenders is assigned an MIR value of 0.0;
- 607.3 For any VOC not addressed under 607.1 or 607.2 of this Section, each ROC is assigned the MIR value set forth in Title 17, California Code of Regulations, Subchapter 8.6, Article 1, section 94522(h);
- 607.4 All individual compounds in an amount equal to or exceeding 0.1 percent shall be considered ingredients in calculating the CWMIR values; such

individual compounds shall be considered ingredients whether or not they are reported by the manufacturer pursuant to Section 8-45-306.

8-45-608 Determination of Alternative Compliance: For the purpose of determining compliance with the compound-weighted maximum incremental reactivity (CWMIR) limits as specified in Section 8-45-301.4, samples shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 9.