

718 MOTOR VEHICLE AND MOBILE EQUIPMENT NON-ASSEMBLY LINE COATING OPERATIONS

718.1 This section applies to any person or automotive refinishing facility that sells, supplies, offers for sale, distributes, manufactures, blends, or repackages for sale an automotive coating or associated cleaning solvent for use within the District of Columbia, as well as any person or automotive refinishing facility that uses, applies, or solicits the use or application of an automotive coating or associated cleaning solvent within the District, except as provided in § 718.2.

718.2 This section does not apply to:

- (a) An automotive coating or associated cleaning solvent that is offered for sale, supplied, sold, distributed, blended, repackaged for sale, or manufactured for use outside of the District, except for § 718.26 (relating to recordkeeping);
- (b) An automotive coating or associated cleaning solvent that is shipped to other manufacturers for reformulation or repackaging;
- (c) A nonrefillable aerosol coating product;
- (d) An automotive coating that is sold, supplied, or offered for sale in one half (0.5) fluid ounce or smaller containers intended to be used by the general public for automotive touch-up or repair for small surface imperfections;
- (e) A coating applied to motor vehicles or mobile equipment or their associated parts and components during original equipment manufacture on an assembly line;
- (f) An automotive coating applied to motor vehicles or mobile equipment or their associated parts and components in a non-commercial automotive refinishing facility by a person who does not receive compensation for the application of the coating; or
- (g) A locally prepared mix of solvent and some amount of film forming solids solely used to blend in spot repairs made to a discrete body panel, except that the application of cleaning solvent to a spot repair is not exempted.

718.3 Unless the automotive coating has a VOC regulatory content calculated in accordance with § 718.6(a) that meets or is below the VOC content limits of Table I, a person may not supply, sell, offer for sale, distribute, manufacture, blend, or repackage for sale an automotive coating for use in the District, nor may a person use or apply an automotive coating to a motor vehicle, mobile equipment, or associated parts and components.

Table I. Allowable VOC Content in Automotive Coatings for Motor Vehicle and Mobile Equipment Non-Assembly Line Refinishing and Recoating

Coating Category	VOC Regulatory Limit As Applied*	
	(Pounds per gallon)	(Grams per liter)
Adhesion promoter	4.5	540
Automotive pretreatment coating	5.5	660
Automotive primer	2.1	250
Clear coating	2.1	250
Color coating, including metallic/iridescent color coating	3.5	420
Multicolor coating	5.7	680
Other automotive coating type	2.1	250
Single-stage coating, including single-stage metallic/iridescent coating	2.8	340
Temporary protective coating	0.50	60
Truck bed liner coating	1.7	200
Underbody coating	3.6	430
Uniform finish coating	4.5	540

*VOC regulatory limit as applied = Weight of VOC per Volume of Coating (prepared to manufacturer's recommended maximum VOC content, minus water and non-VOC solvents)

718.4 Each cleaning solvent present at an automotive refinishing facility or non-assembly line automotive coating operation shall not exceed a VOC content of twenty-five (25) grams per liter (twenty-one one-hundredths (0.21) pound per gallon), calculated in accordance with the requirements of § 718.6(c), except for:

- (a) Cleaning solvent used as bug and tar remover if the VOC content of the cleaning solvent does not exceed three hundred fifty (350) grams per liter (two and nine-tenths (2.9) pounds per gallon), where usage of cleaning solvent used as bug and tar remover is limited as follows:
 - (1) Twenty (20) gallons in any consecutive twelve-month (12) period for an automotive refinishing facility and operations with four hundred (400) gallons or more of coating usage during the preceding twelve (12) calendar months;
 - (2) Fifteen (15) gallons in any consecutive twelve-month (12) period for an automotive refinishing facility and operations with one hundred fifty (150) gallons or more of coating usage during the preceding twelve (12) calendar months; or

- (3) Ten (10) gallons in any consecutive twelve-month (12) period for an automotive refinishing facility and operations with less than one hundred fifty (150) gallons of coating usage during the preceding twelve (12) calendar months;
- (b) Cleaning solvents used to clean plastic parts just prior to coating or VOC-containing materials for the removal of wax and grease provided that non-aerosol, hand-held spray bottles are used with a maximum cleaning solvent VOC content of seven hundred eighty (780) grams per liter and the total volume of the cleaning solvent does not exceed twenty (20) gallons per consecutive twelve-month (12) period per automotive refinishing facility;
- (c) Aerosol cleaning solvents if one hundred sixty (160) ounces or less are used per day per automotive refinishing facility; or
- (d) Cleaning solvent with a VOC content no greater than three hundred fifty (350) grams per liter may be used at a volume equal to two-and-one-half percent (2.5%) of the preceding calendar year’s annual coating usage up to a maximum of fifteen (15) gallons per calendar year of cleaning solvent.

718.5 An automotive refinishing facility in operation as of February 9, 2016, may, for three (3) calendar months after December 1, 2016:

- (a) As an alternative to § 718.3, use an automotive coating with a VOC regulatory content calculated in accordance with § 718.6(a) that contains VOCs at or below the limits specified in Table II; and

Table II. Alternative Allowable Content of VOCs in Automotive Coatings for Motor Vehicle and Mobile Equipment Non-Assembly Line Refinishing and Recoating

Coating Category	VOC Regulatory Limit As Applied*	
	(Pounds per gallon)	(Grams per liter)
Automotive pretreatment primer	6.5	780
Automotive primer-surfacer	4.8	575
Automotive primer-sealer	4.6	550
Single stage-topcoat	5.0	600
2 stage basecoat/clearcoat	5.0	600
3 or 4-stage basecoat/clearcoat	5.2	625
Automotive multicolored topcoat	5.7	680
Automotive specialty coating	7.0	840

*VOC regulatory limit as applied = Weight of VOC per Volume of Coating (prepared to manufacturer’s recommended maximum VOC content, minus water and non-VOC solvents)

- (b) As an alternative to § 718.4, use the cleaning solvents already purchased and in use at the automotive refinishing facility as of February 9, 2016.

718.6 The VOC content of an automotive coating, automotive coating component, or cleaning solvent subject to this section shall be calculated in accordance with the following, where:

VOC = VOC content in grams per liter

W_v = Weight of total volatiles, in grams;

W_w = Weight of water, in grams;

W_{ec} = Weight of exempt compounds, in grams;

V_m = Volume of material (coating or cleaning solvent, as applicable, including water, exempt compounds, and added solvent), in liters;

V_w = Volume of water, in liters; and

V_{ec} = Volume of exempt compounds, in liters; and

To convert from grams per liter to pounds per gallon multiply the result (VOC regulatory content) by 8.345×10^{-3} (pounds per gallon/grams per liter).

- (a) For VOC regulatory content for coatings, the weight of VOC per volume of coating, less water and exempt compounds, shall be calculated by the following equation:

$$\begin{array}{l} \text{VOC} \\ \text{regulatory} \\ \text{content} \end{array} = \frac{(W_v - W_w - W_{ec})}{(V_m - V_w - V_{ec})}$$

- (b) For VOC actual content for coatings, the weight of VOC per volume of material, including the volume of water, exempt compounds and VOC solvent, shall be calculated by the following equation:

$$\begin{array}{l} \text{VOC} \\ \text{actual} \\ \text{content} \end{array} = \frac{(W_v - W_w - W_{ec})}{V_m}$$

- (c) For VOC content for cleaning solvents, the weight of VOC per volume of material shall be calculated by the following equation:

$$\text{VOC content} = \frac{(W_v - W_w - W_{ec})}{V_m}$$

- 718.7 To determine the physical properties of a coating to perform the calculations in § 718.6, the coating shall be analyzed in accordance with the methods specified in § 718.28 (relating to coating analysis).
- 718.8 If on the container of an automotive coating, or a label or sticker affixed to the container, or in sales, advertising, technical, or product literature, a representation is made that indicates that the coating meets the definition of or is recommended for use for more than one (1) of the coating categories listed in § 718.3 (relating to coating VOC content limits), then the lowest applicable VOC content limit shall apply.
- 718.9 A person may not possess either of the following at a non-assembly line motor vehicle or mobile equipment coating operation:
- (a) An automotive coating that is not in compliance with § 718.3 (relating to coating VOC content limits); and
 - (b) A cleaning solvent that does not meet the requirements of § 718.4 (relating to cleaning solvent VOC content limits).
- 718.10 A person may not solicit or require the use of, or specify the application or use of, a coating, solvent, or cleaning solvent on a motor vehicle or motor equipment, or associated parts and components, if the use or application results in a violation of this section.
- 718.11 A person may not apply an automotive coating to a motor vehicle, mobile equipment, or associated parts and components, unless one (1) or more of the following application methods is used:
- (a) Flow/curtain coating;
 - (b) Dip coating;
 - (c) Roller coating;
 - (d) Brush coating;
 - (e) Cotton-tipped swab application;
 - (f) Spray-applied coatings limited to:
 - (1) High-volume low-pressure (HVLP) spraying;

- (2) Electrostatic application;
 - (3) Airless spray; and
 - (4) Air-assisted airless spray;
- (g) An alternative spray equipment coating application method, which the person has demonstrated to the Department, achieving a transfer efficiency equivalent to, or higher than, HVLP or electrostatic spray application methods, using the spray equipment transfer methods under § 718.32 and 718.33. A demonstration shall include:
- (1) The manufacturer's published technical material on the design of the spray equipment;
 - (2) The operation of the spray equipment using an air pressure tip gauge from the manufacturer of the spray equipment;
 - (3) The report of the demonstration shall be submitted to the Department in writing; and
 - (4) The Department shall approve the use of the alternative spray equipment technology in writing; or
- (h) An alternative coating application method that has been approved by the California Air Resources Board (CARB) or a California Air District for use in applying non-assembly line automotive coatings for motor vehicle and mobile equipment operations, which shall also meet the standards in § 718.14 (relating to alternative application technology or method demonstrations).

718.12 The application requirements of § 718.11 (relating to coating application methods) do not apply to the following:

- (a) Graphic arts operations;
- (b) A coating use of less than one (1) fluid ounce (twenty-nine and six tenths (29.6) milliliters);
- (c) The application of underbody coatings; and

- (d) The application of truck bed liner coatings.

718.13 If a spray equipment coating application technology is used, the end user shall demonstrate that the equipment meets one of the following:

- (a) The definition of HVLP in § 799 in design and use, where a satisfactory demonstration shall comply with (b) or be based on:
 - (1) The manufacturer's published technical material on the design of the equipment; and
 - (2) A demonstration of the operation of the equipment using an air pressure cap test gauge from the manufacturer of the equipment; or
- (b) The alternative spray coating application method transfer efficiency requirement of § 718.11(g), where a satisfactory demonstration shall include the following:
 - (1) Written determination of the transfer efficiency in accordance with the test methods in § 718.32 and § 718.33 (relating to spray equipment transfer efficiency and spray equipment HVLP equivalency); and
 - (2) Written documentation that the alternative spray coating application method has been approved by the Department for use in the District.

718.14 If an alternative spray or non-spray coating application technology or method is used, pursuant to § 718.11(h), the end user shall demonstrate the following:

- (a) The approval is currently in effect in the issuing California Air District; and
- (b) The manufacturer of the alternative coating application technology or method has submitted to the Department all of the following:
 - (1) A statement that it intends to comply with this section under an alternative coating application technology or method approval;
 - (2) A copy of the documents submitted to the California Air Resources Board (CARB) or California Air District for approval of the alternative coating application technology or method;
 - (3) A copy of the approval documentation issued by CARB or California Air District;

(4) A copy of the conditions of approval issued by CARB or California Air District; and

(5) A copy of documents that subsequently modify or terminate its conditions of approval issued by CARB or California Air District.

718.15 Spray guns used to apply automotive coating components or automotive coatings shall be cleaned by one (1) or a combination of the following:

(a) A fully enclosed spray gun cleaning system that is kept closed when not in use, where the active and passive solvent losses from the use of the system shall be determined in accordance with the requirements of § 718.34 (related to active and passive solvent loss determinations for spray gun cleaning systems);

(b) An unatomized discharge of cleaning solvent into a paint waste container that is kept closed when not in use; or

(c) Disassembly of the spray gun and cleaning in a vat that is kept closed when not in use.

718.16 The owner and operator of an automotive refinishing facility or non-assembly line coating operation shall ensure that:

(a) Fresh and used automotive coating components, automotive coatings, solvents, and cleaning solvents are stored in vapor-tight, nonabsorbent, nonleaking containers that are kept closed at all times except when filling or emptying;

(b) Cloth and paper, or other absorbent applicators, moistened with automotive coating components, automotive coatings, solvents, or cleaning solvents are stored in vapor-tight, nonabsorbent, nonleaking containers that are kept closed at all times except when filling or emptying;

(c) Handling and transfer procedures minimize spills during the transfer of automotive coating components, automotive coatings, solvents, and cleaning solvents;

(d) A person who uses or applies automotive coating components, automotive coatings, solvents, or cleaning solvents is trained in the proper use and handling of the automotive coating components, automotive coatings, solvents, cleaning solvents, and waste products in order to minimize the emission of air contaminants and to comply with this section; and

- (e) Ensure that all training is in compliance with the requirements of 40 C.F.R. §§ 63.11173(e)-(g), which is adopted in § 1409.

718.17 The owner and operator of an automotive refinishing facility shall:

- (a) Close all paint spray booth openings while a coating is applied, during the time period required for drying of the coating, and while any other operation may release emissions;
- (b) Comply with the paint spray booth and particulate filter design requirements of 40 C.F.R. § 63.11173(e)(2), which is adopted in § 1409;
- (c) Maintain a negative pressure sufficient to ensure that no emissions are exiting the booth anywhere except the exhaust stack; and
- (d) Maintain in good working order and operate according to manufacturer specifications the monitoring, exhaust, and control systems within the paint spray booth.

718.18 If an automotive refinishing facility is found to be in violation of a provision of 20 DCMR Ch. 1-15, the Department may require the installation of additional emission controls or curtailment of operations until compliance is demonstrated.

718.19 The owner and operator of an automotive refinishing facility that installs or constructs an automotive paint spray booth after February 9, 2016, shall ensure that all emissions from the application of automotive coatings for motor vehicle and mobile equipment be exhausted through a stack that meets all of the following requirements:

- (a) Discharges at least fifteen (15) feet above grade;
- (b) Discharges at least five (5) feet above the roof peak;
- (c) Discharges vertically upward above the roof peak;
- (d) Discharges at a height and exhaust velocity sufficient to avoid the exhaust being circulated adjacent to the building due to building downwash effects or drawn into nearby building intakes so as to ensure compliance with §§ 201 and 903; and
- (e) Not equipped with anything that would impede the upward discharge of the exhaust air, such as rain caps. Other techniques may be installed to prevent snow and ice from entering the exhaust system, such as butterfly caps or stack sleeves.

- 718.20 The owner and operator of an automotive refinishing facility in operation as of February 9, 2016, shall have six (6) months from that date to meet the requirements of § 718.19 (relating to exhaust stacks).
- 718.21 Manufacturers and repackagers of automotive coatings or associated cleaning solvents shall include the following information on a product data sheet or other data sheet:
- (a) For each automotive coating or automotive coating component:
 - (1) The VOC actual content and VOC regulatory content, as supplied, for the coating product or coating component product, expressed in grams per liter, calculated in accordance with the requirements of § 718.6(a) and (b) (relating to calculation of VOC content);
 - (2) The weight percent of volatiles, water, and exempt compounds;
 - (3) The volume percent of water and exempt compounds; and
 - (4) The density of the material (in grams per liter).
 - (b) For each ready-to-spray or ready-to-apply mixture (based on the manufacturer's and repackager's stated mix ratio):
 - (1) The VOC actual content and the VOC regulatory content, as applied, for the coating product or coating component product, expressed in grams per liter;
 - (2) The weight percent of volatiles, water, and exempt compounds;
 - (3) The volume percent of water and exempt compounds; and
 - (4) The density of the material (in grams per liter).
 - (c) For cleaning solvents subject to this section, the VOC content of the cleaning solvents as supplied, calculated in accordance with the requirements of § 718.6(c) (relating to cleaning solvent VOC contentment calculation), expressed in grams per liter.
- 718.22 Manufacturers and repackagers shall include, on all containers or on a label affixed to the container of:

- (a) Automotive coatings or automotive coating components:
 - (1) The applicable use category or categories;
 - (2) The VOC actual content of the coating or coating component, as supplied, calculated in accordance with the requirements of § 718.6(b) (relating to coating VOC actual content calculations) and expressed in grams per liter; and
 - (3) The VOC regulatory content of the coating or coating component as supplied, calculated in accordance with the requirements § 718.6(a) (related to coating VOC regulatory content calculations) and expressed in grams per liter;
- (b) Cleaning solvents subject to this section: the VOC content as supplied, calculated in accordance with the requirements of § 718.6(c) (relating to cleaning solvent VOC content calculation) and expressed in grams per liter.

718.23 Any records required to be maintained by this section shall be:

- (a) Retained for a minimum of five (5) years; and
- (b) Made available for inspection by the Department upon request.

718.24 A person who uses automotive coatings, automotive coating components, ready-to-spray coatings (based on the manufacturer's stated mix ratio), or cleaning solvents subject to this section shall maintain and have available at all times at the automotive refinishing facility:

- (a) A list of all coatings, coating components, and cleaning solvents used at the automotive refinishing facility, including:
 - (1) Whether the material is a coating, coating component, or cleaning solvent;
 - (2) Coating, coating component, or cleaning solvent name and manufacturer;
 - (3) Application method;
 - (4) Coating type as listed in § 718.3 (relating to coating VOC content limits);
 - (5) The mix ratio specific to the coating or coating component; and

- (6) The VOC actual content and VOC regulatory content, as applied, for each ready to spray or ready to apply coating or cleaning solvent and copies of data sheets documenting how as applied values were determined.
- (b) The VOC actual and VOC regulatory content as supplied and copies of product data sheets, material safety data sheets, or other data sheets documenting the as supplied value; and
- (c) Purchase records identifying the following:
 - (1) The coating type (as listed in Table I);
 - (2) The name of the coating, coating component, or cleaning solvent; and
 - (3) The volume purchased of the coating, coating component, or cleaning solvent.

718.25 A person who installs an emission control system pursuant to § 718.18 shall maintain records including:

- (a) Records of system operating parameters, such as temperatures, pressure drops, and air flow rates, which demonstrate compliance with § 718.18 and continuous operation and compliance of the emission control system during periods of VOC emission producing activities;
- (b) Records of any maintenance and repair activities performed;
- (c) Records of malfunctions and shutdown periods for the control systems, including the time period of shutdown, reason for shutdown, and corrective actions taken; and
- (d) Any additional records required by a permit issued pursuant to this title.

718.26 A person claiming the exception specified in § 718.2(a) shall keep a detailed log of each automotive coating and automotive coating component manufactured, blended, repackaged for sale, supplied, sold, offered for sale, or distributed. The detailed log shall include the following information:

- (a) The quantity manufactured, blended, repackaged for sale, supplied, sold, offered for sale, or distributed, including size and number of containers;
- (b) The VOC actual content and the VOC regulatory content for the coating or coating component; and

- (c) To whom they were supplied, sold, or distributed, or for whom they were manufactured, blended, or repackaged for sale including the name, address, and phone number.

718.27 To determine compliance with this section, the test methods in subsections § 718.28 through 718.36 shall be used.

718.28 To determine compliance with this section, the test method for coating analysis shall be as follows:

- (a) To perform the calculations specified in § 718.6 (related to calculation of VOC content), the physical properties of automotive coatings, automotive coating components, and cleaning solvents subject to this section shall be determined using the most recent version of one of the following:
 - (1) EPA Reference Method 24, *Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings*, 40 CFR Part 60, Appendix A;
 - (2) SCAQMD Method 304-91, *Determination of Volatile Organic Compounds (VOC) in Various Materials*; or
 - (3) An alternative method, formulation data, or other reasonable means for predicting that the coating has been formulated as intended, if approved in writing by the Department.
- (b) If there are inconsistencies between the results of an EPA Reference Method 24 test and another means for determining the physical properties of the coating and subsequent VOC content, the EPA Reference Method 24 test results shall govern, except when an alternative method is approved as specified in § 718.28(a)(3).

718.29 The identity and concentration of exempt organic compounds shall be determined using the most recent version of one (1) or more of the following:

- (a) ASTM D6133, *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*;
- (b) ASTM D4457, *Standard Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph*;
- (c) CARB Method 432, *Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings*;

- (d) CARB Method 422, *Determination of Volatile Organic Compounds in Emissions from Stationary Sources*; or
 - (e) SCAQMD Method 303, *Determination of Exempt Compounds*.
- 718.30 Measurement of acid content in automotive pretreatment coating, as specified in § 799 (defining automotive pretreatment coatings), shall be determined by using the most recent version of ASTM D1613, *Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products*.
- 718.31 The metallic content of a metallic or iridescent color coating, as specified in § 799 (defining metallic/iridescent color coating), shall be determined by the most recent version of SCAQMD Method 318, *Determination of Weight Percent Elemental Metal in Coatings by X-ray*.
- 718.32 Spray equipment transfer efficiency, as specified in § 799 and § 718.11(g) (defining and relating to coating application methods, respectively), shall be determined by using the most recent version of the SCAQMD Test Procedure, *Spray Equipment Transfer Efficiency Test Procedure for Equipment User*.
- 718.33 Spray equipment HVLP equivalency, as specified in § 718.13 (relating to the use of a spray gun), shall be determined by using the most recent version of one of the following:
- (a) SCAQMD Guidelines, *Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns*; or
 - (b) The Environmental Technology Verification ETV Protocol, *HVLP Coating Equipment, Generic Testing and Quality Assurance Protocol*, prepared by the National Defense Center for Environmental Excellence, operated by Concurrent Technologies Corporation.
- 718.34 The active and passive solvent losses from the use of an enclosed spray gun cleaning system or equivalent cleaning system, as specified in § 718.15(a) (relating to spray gun cleaning systems), shall be determined using the most recent version of SCAQMD Method, *General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems*.
- (a) The test solvent for this determination shall be a lacquer thinner with a minimum vapor pressure of one hundred five millimeters (105 mm) of mercury at twenty degrees Celsius (20°C); and
 - (b) The minimum test temperature shall be fifteen degrees Celsius (15°C).

- 718.35 If an emission control system is required by § 718.18, the owner or operator shall make the following determinations, if required by the Department:
- (a) The measurement of capture efficiency shall be conducted and reported in accordance with one or both of the following, as applicable:
 - (1) EPA Technical Document, *Guidelines for Determining Capture Efficiency*; or
 - (2) 40 C.F.R. Part 51, Appendix M, Methods 204 –204f; and
 - (b) The control efficiency shall be determined in accordance with the most recent version of one or more of the following:
 - (1) EPA Reference Method 25, *Determination of Total Gaseous Nonmethane Organic Emissions as Carbon*, 40 C.F.R. Part 60, Appendix A;
 - (2) EPA Reference Method 25A, *Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer*, 40 C.F.R. Part 60, Appendix A; or
 - (3) EPA Reference Method 25B, *Determination of Total Gaseous Organic Concentration Using a Nondispersive Infrared Analyzer*, 40 C.F.R. Part 60, Appendix A.
- 718.36 The use of other test methods that are determined to be equivalent or better and approved, in writing, by the Department or the Administrator may be used in place of the test methods specified in this section.

SOURCE: Final Rulemaking published at 51 DCR 3879 (April 16, 2004); as amended by Final Rulemaking published at 51 DCR 10781 (November 26, 2004); as amended by Final Rulemaking published at 63 DCR 15095 (December 9, 2016).