

(i) An appropriate and current ASTM test method with prior written approval from the Department and the EPA.

(ii) Another test method demonstrated to provide results that are acceptable for purposes of determining compliance with this section if prior approval is obtained in writing from the Department and the EPA.

(2) Calculating the composite vapor pressure using the following equation:

$$Pp_c = \frac{\sum_{i=1}^n (W_i) (VP_i)/Mw_i}{\frac{W_w}{Mw_w} + \sum_{e=1}^k W_e/Mw_e + \sum_{i=1}^n W_i/Mw_i}$$

Where:

$Pp_c$  = VOC composite partial pressure at 20°C, in mm mercury.

$W_i$  = Weight of the "i"th VOC compound, in grams, as determined by ASTM E260.

$W_w$  = Weight of water, in grams, as determined by ASTM D3792.

$W_e$  = Weight of the "e"th exempt compound, in grams, as determined by ASTM E260.

$Mw_i$  = Molecular weight of the "i"th VOC compound, in grams per g-mole, as given in chemical reference literature.

$Mw_w$  = Molecular weight of water, 18 grams per g-mole.

$Mw_e$  = Molecular weight of the "e"th exempt compound, in grams per g-mole, as given in chemical reference literature.

$VP_i$  = Vapor pressure of the "i"th VOC compound at 20°C, in mm mercury, as determined by subsection (j).

(3) Providing documentation from the manufacturer of the industrial cleaning solvent that indicates the composite vapor pressure. The documentation may include an MSDS, CPDS or other data certified by the manufacturer.

(j) *Vapor pressure of single component compound.* The vapor pressure of each single component compound in a cleaning unit operation industrial cleaning solvent shall be determined from one or more of the following:

(1) An appropriate and current ASTM test method with prior written approval from the Department and the EPA.

(2) The most recent edition of one or more of the following sources:

(i) *Vapour Pressures of Pure Substances*, Boublik, Elsevier Scientific Publishing Company.

(ii) *Perry's Chemical Engineers' Handbook*, Green and Perry, McGraw-Hill Book Company.

(iii) *CRC Handbook of Chemistry and Physics*, CRC Press.

(iv) *Lange's Handbook of Chemistry*, McGraw-Hill Book Company.

(3) Documentation provided by the manufacturer of the single component compound that indicates the vapor pressure of the single component compound. The documentation may include an MSDS, CPDS or other data certified by the manufacturer.

(k) *ASTM method references.* References to ASTM methods in this section pertain to test methods developed by ASTM International, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, Pennsylvania 19428-2959, www.astm.org.

#### § 129.73. Aerospace manufacturing and rework.

Except as provided in paragraph (1), this section applies to the manufacture or rework of commercial, civil or military aerospace vehicles or components at any facility which has the potential to emit 25 tons per year of VOCs or more.

(1) This section does not apply to cleaning and coating of aerospace components and vehicles as follows:

(i) At any source conducting research and development for the research and development activities.

(ii) For quality control and laboratory testing.

(iii) For production of electronic parts and assemblies (except for cleaning and coating of completed assemblies).

(iv) For rework operations performed on antique aerospace vehicles or components.

(2) Paragraph (3) does not apply to cleaning and coating of aerospace components and vehicles in the following circumstances:

(i) The use of touchup, aerosol and Department of Defense "classified" coatings.

(ii) The coating of space vehicles.

(iii) At facilities that use separate formulations in volumes less than 50 gallons per year to a maximum exemption of 200 gallons per year of all the coatings in aggregate for these formulations.

(3) Beginning April 10, 1999, a person may not apply to aerospace vehicles or components, aerospace specialty coatings, primers, topcoats and chemical milling maskants including VOC-containing materials added to the original coating supplied by the manufacturer, that contain VOCs in excess of the limits specified in Table II.

(i) Aerospace coatings that meet the definitions of the specific coatings in Table II shall meet those allowable coating VOC limits.

(ii) All other aerospace primers, aerospace topcoats and chemical milling maskants are subject to the general coating VOC limits for aerospace primers, aerospace topcoats and aerospace chemical milling maskants.

**TABLE II**  
**Allowable Content of VOCs in Aerospace Coatings**  
**Weight of VOC Per Volume of Coating (Minus Water and Exempt Solvents)**

<i>COATING TYPE</i>	<i>LIMIT</i>	
	<i>POUNDS PER GALLON</i>	<i>GRAMS PER LITER</i>
Specialty Coatings		
(1) Ablative Coating	5.0	600
(2) Adhesion Promoter	7.4	890
(3) Adhesive Bonding Primers:		
(a) Cured at 250°F or below	7.1	850
(b) Cured above 250°F	8.6	1,030
(4) Adhesives:		
(a) Commercial Interior Adhesive	6.3	760
(b) Cyanoacrylate Adhesive	8.5	1,020
(c) Fuel Tank Adhesive	5.2	620
(d) Nonstructural Adhesive	3.0	360
(e) Rocket Motor Bonding Adhesive	7.4	890
(f) Rubber-Based Adhesive	7.1	850
(g) Structural Autoclavable Adhesive	0.5	60
(h) Structural Nonautoclavable Adhesive	7.1	850
(5) Antichafe Coating	5.5	660
(6) Chemical Agent-Resistant Coating	4.6	550
(7) Clear Coating	6.0	720
(8) Commercial Exterior Aerodynamic Structure Primer	5.4	650
(9) Compatible Substrate Primer	6.5	780
(10) Corrosion Prevention Compound	5.9	710
(11) Cryogenic Flexible Primer	5.4	645
(12) Cryoprotective Coating	5.0	600
(13) Electric or Radiation-Effect Coating	6.7	800
(14) Electrostatic Discharge and Electromagnetic Interference (EMI) Coating	6.7	800
(15) Elevated Temperature Skydrol Resistant Commercial Primer	6.2	740
(16) Epoxy Polyamide Topcoat	5.5	660
(17) Fire-Resistant (Interior) Coating	6.7	800
(18) Flexible Primer	5.4	640
(19) Flight-Test Coatings:		
(a) Missile or Single Use Aircraft	3.5	420
(b) All Other	7.0	840
(20) Fuel-Tank Coating	6.0	720
(21) High-Temperature Coating	7.1	850
(22) Insulation Covering	6.2	740
(23) Intermediate Release Coating	6.2	750
(24) Lacquer	6.9	830
(25) Maskants:		
(a) Bonding Maskant	10.2	1,230
(b) Critical Use and Line Sealer Maskant	8.6	1,020
(c) Seal Coat Maskant	10.2	1,230
(26) Metallized Epoxy Coating	6.2	740
(27) Mold Release	6.5	780
(28) Optical Anti-Reflective Coating	6.2	750

COATING TYPE	LIMIT	
	POUNDS PER GALLON	GRAMS PER LITER
(29) Part Marking Coating	7.1	850
(30) Pretreatment Coating	6.5	780
(31) Rain Erosion-Resistant Coating	7.1	850
(32) Rocket Motor Nozzle Coating	5.5	660
(33) Scale Inhibitor	7.3	880
(34) Screen Print Ink	7.0	840
(35) Sealants:		
(a) Extrudable/Rollable/Brushable Sealant	2.0	240
(b) Sprayable Sealant	5.0	600
(36) Self-Priming Topcoat	3.5	420
(37) Silicone Insulation Material	7.1	850
(38) Solid Film Lubricant	7.3	880
(39) Specialized Function Coating	7.4	890
(40) Temporary Protective Coating	2.7	320
(41) Thermal Control Coating	6.7	800
(42) Wet Fastener Installation Coating	5.6	675
(43) Wing Coating	7.1	850
Aerospace Primers, Aerospace Topcoats and Aerospace Chemical Milling Maskants		
(1) Primers	2.9	350
(2) Topcoats	3.5	420
(3) Chemical Milling Maskants (Type I/II)	1.3	160

(4) The mass of VOC per combined volume of VOC and coating solids, less water and exempt compounds shall be calculated for each coating by the following equation:

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**ADDITIONAL RACT REQUIREMENTS FOR MAJOR SOURCES OF NO<sub>x</sub> AND VOCs**

**§ 129.96. Applicability.**

(a) The NO<sub>x</sub> requirements of this section and §§ 129.97—129.100 apply Statewide to the owner and operator of a major NO<sub>x</sub> emitting facility and the VOC requirements of this section and §§ 129.97—129.100 apply Statewide to the owner and operator of a major VOC emitting facility that were in existence on or before July 20, 2012, for which a requirement or emission limitation, or both, has not been established in §§ 129.51—129.52c, 129.54—129.63, 129.64—129.69, 129.71—129.75, 129.77, 129.101—129.107 and 129.301—129.310.

(b) The NO<sub>x</sub> requirements of this section and §§ 129.97—129.100 apply Statewide to the owner and operator of a NO<sub>x</sub> emitting facility and the VOC requirements of this section and §§ 129.97—129.100 apply Statewide to the owner and operator of a VOC emitting facility when the installation of a new source or a modification or change in operation of an existing source after July 20, 2012, results in the source or facility meeting the definition of a major NO<sub>x</sub> emitting facility or a major VOC emitting facility and for which a requirement or an emission limitation, or both, has not been established in §§ 129.51—129.52e, 129.54—129.69, 129.71—129.75, 129.77, 129.101—129.107 and 129.301—129.310.

(c) This section and §§ 129.97—129.100 do not apply to the owner and operator of a NO<sub>x</sub> air contamination source located at a major NO<sub>x</sub> emitting facility that has the

potential to emit less than 1 TPY of NO<sub>x</sub> or a VOC air contamination source located at a major VOC emitting facility that has the potential to emit less than 1 TPY of VOC.

(d) This section and §§ 129.97—129.100 do not apply to the owner and operator of a facility which is not a major NO<sub>x</sub> emitting facility or a major VOC emitting facility on or before January 1, 2017.

**§ 129.97. Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.**

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(k) The owner or operator of a major NO<sub>x</sub> emitting facility or a major VOC emitting facility subject to § 129.96 that includes an air contamination source subject to one or more of subsections (b)—(h) that cannot meet the applicable presumptive RACT requirement or RACT emission limitation without installation of an air cleaning device may submit a petition, in writing, requesting an alternative compliance schedule in accordance with the following:

(1) The written petition shall be submitted to the Department or appropriate approved local air pollution control agency as soon as possible but not later than:

(i) October 24, 2016, for a source subject to § 129.96(a).

(ii) October 24, 2016, or 6 months after the date that the source meets the definition of a major NO<sub>x</sub> emitting