

CHAPTER 7 – LABELING FOR EMISSIONS FROM VOLATILE ORGANIC COMPOUNDS:FEDERAL, STATE AND LOCAL REQUIREMENTS

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Federal Labeling Requirements for Architectural and Industrial Maintenance (AIM) Coatings and Consumer Products

To reduce contribution to ozone from VOCs (Volatile Organic Compounds) in paint, EPA finalized the AIM (Architectural and Industrial Maintenance) Rule under the Clean Air Act in 1998.

EPA has codified the AIM Rule at 40 CFR 59, Subpart D.

EPA provides additional guidance on its webpage for Architectural Coatings: National Volatile Organic Compounds Emission Standards.

EPA has also issued standards for consumer products at 40 CFR 59, Subpart C.

The AIM rule applies to manufacturers and importers of AIM coatings that are manufactured after **September 13, 1999**, with a delayed effective date of March 10, 2000 for architectural coatings registered under the Federal Insecticide, Fungicide and Rodenticide Act (7 USC Section 136, et. seq.) (FIFRA).

Rules for architectural and industrial maintenance coatings affect a wide array of formulated coatings products designed for field application and/or commercial and industrial use. The AIM Rule specifies requirements by product categories. More generally, EPA defines architectural coatings and industrial maintenance coatings as follows:

Architectural coating means a coating recommended for field application to stationary structures and their appurtenances, to portable buildings, to pavements, or to curbs. This definition excludes adhesives and coatings recommended by the manufacturer or importer solely for shop applications or solely for application to non-stationary structures, such as airplanes, ships, boats, and railcars.

Industrial maintenance coating means a high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats formulated and recommended for application to substrates exposed to one or more of the following extreme environmental conditions in an industrial, commercial, or institutional setting:

1. Immersion in water, wastewater, or chemical solutions (aqueous and nonaqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
2. Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;
3. Repeated exposure to temperatures above 120 °C (250 °F);
4. Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or
5. Exterior exposure of metal structures and structural components.

Covered products include interior and exterior paints, traffic markings, and sign paints. Manufacturers and importers of any of the 61 categories of architectural coatings are subject to the AIM rule and must ensure that the VOC content of the coating does not exceed the applicable limits in Table 1 of Subpart D (at 40 CFR 59), unless they utilize the exceedance fee (at 40 CFR 59.403) or tonnage exemption (at 40 CFR 59.404).

The exceedance fee is an annual fee paid on the excess VOC amount per coating over the total volume manufactured at the rate of \$0.0028 per gram of excess VOC, as specified at 40 CFR 59.403. The tonnage exemption allows production of coatings in excess of limits where the aggregate VOC tonnage is 10 tons or less, calculated as specified in the rule at 40 CFR 59.404.

For the purpose of meeting VOC limits, each coating must be classified by the manufacturer or importer under one of the categories in Table 1 of Subpart D – the definition for each category can be found in 40 CFR 59.401. If the coating does not meet any of the category definitions, then it must be classified as either a flat or non-flat coating (depending on its gloss level). The limits in Table 1 of Subpart D apply to the VOC content that would result after thinning according to the manufacturer's recommendations.

Labeling of Volatile Organic Compounds

EPA's AIM Rule includes national-level labeling requirements at 40 CFR 59.405. AIM products must be labeled with:

- Date of manufacture
- Manufacturer's recommendation regarding thinning
- VOC content
- Product description using standardized statements in the regulation
- Specified statements indicating recycled coating content

Generally, state and local VOC labeling requirements follow the National AIM rule. However, some rules require additional labeling for certain categories of coatings. In addition, the rules may vary as to content limits, category listings and definitions, effective dates and sell through periods, and recordkeeping and reporting requirements. The following is a brief overview of where certain state and local requirements differ from the EPA National AIM rule for labeling purposes. A manufacturer must review requirements for relevant product categories to determine label variations.

ACA members can access additional information about AIM VOC Regulations on the AIM VOC Committee Website including an interactive AIM VOC Map; AIM VOC Comparison Table, Exempt Compounds Table and California Air District AIM Rule Adoption summary table. ACA member logon is required.

State Labeling of Architectural and Industrial Maintenance Coatings and Consumer Products

The EPA National AIM rule currently establishes labeling requirements that apply anywhere in the United States and territories except in certain states and local districts that have adopted more stringent standards either individually or by recommendation of a regional-level consortium of states.

The following establish more stringent requirements than the National AIM Rule:

- California,
- Ozone Transport Commission states (OTC),
- Maricopa County, Arizona,
- Several Lake Michigan Air Directors Consortium (LADCO) states
- Colorado
- Utah (7 counties)

Since there is always the possibility that other states/localities will adopt rules more stringent than the federal standards, coatings manufacturers must review and comply with VOC labeling requirements for each of the localities where product(s) will be sold or for the intended location of use.

A map showing states with more stringent requirements is available on [ACA's AIM VOC Committee](#) webpage.

ACA has also developed [a map of consumer product regulations by state](#), available on the [ACA Consumer Products Committee webpage](#).

I. California Air Resources Board Consumer Product Rules and Suggested Control Measures

In California, the local air districts have jurisdiction over industrial processes while the California Air Resources Board (CARB) has jurisdiction over consumer products. CARB's consumer products rule can be found in Article 2: Regulation for Reducing Emissions from Consumer Products.

CARB publishes Suggested Control Measures (SCMs) with VOC limits and labeling requirements. Regional air quality management districts within the State of California adopt and implement these SCMs (links to the various CARB SCMs). The 35 California Air Districts follow either the EPA National AIM Rule; the 2000 SCM; 2007 SCM; 2019 SCM or 2020 SCM. A California Air District AIM Rule Adoption summary table can be found on the AIM VOC Committee Website.

II. California's South Coast Air Quality Management District (SCAQMD) Rule 1113

The SCAQMD's Rule 1113 is the most stringent VOC emission standard in the United States. The SCAQMD covers Los Angeles County and the surrounding areas of Orange County, Riverside County and San Bernardino County. For a listing of covered cities see SCAQMD District's Listing of Covered Cities. Rule 1113 c can be found [here](#).

This rule requires date of manufacture for coatings or colorants; label statements for thinning recommendations and VOC content; special label statements for rust preventative coatings, specialty primers, concrete-curing compounds, and faux finishing; The rule also includes a recycling coatings provision that requires a letter to the Executive Officer.

III. Ozone Transport Commission Rules

The Ozone Transport Commission (OTC) is a multi-state organization formed under the Clean Air Act to advise EPA and address regional issues surrounding ground-level ozone in the Northeast and Mid-Atlantic regions. A complete listing of affected states is available on OTC's website.

In this capacity, the OTC issues model rules that are adopted by states. OTC model rules are based on the National AIM rule, CARB's SCM and SCAQMD's Rule 1113, with some variations in both the model rules and state adoption that could affect labels. OTC has two model rules affecting AIM coatings: the Phase I Rule (2001) and the Phase II Rule (2011). OTC has published status of state-level adoption in an Excel file on its website under Model Rules, Regulatory and Technical Guidelines, under materials for 2019.

OTC has a series of model consumer products rules, too, with the latest being the OTC Phase V Model Rule for Consumer Products (2018).

OTC has published the OTC Model Rule for Industrial Adhesives and Sealants (2006).

OTC Model Rule Phase II

The Ozone Transport Commission updated its Model Rule for AIM Coatings to Phase II (2011) in June 2011. The regulation is available on the OTC website in the section for Model Rules, Regulatory and Technical Guidance under the heading for 2011.

The Phase II rule includes labeling requirements in Section 4. Labeling requirements expand on requirements included in the federal rule, explaining specifications for labeling date of manufacture, thinning recommendations, and VOC content. OTC Phase II includes required label statements for faux finishing, industrial maintenance, clear brushing lacquers, non-flat-high-gloss, rust preventive, specialty primers, sealers, and undercoaters, quick dry enamels, reactive penetrating sealers, reactive penetrating carbonate stone sealers, stone consolidates, wood coatings, and zinc rich primers.

Several OTC states have adopted rules similar to the OTC Phase II rule. Please refer to the AIM VOC Map found on the AIM VOC Committee website, which includes links to the various rules. Please review each individual state rule for the effective dates.

OTC Model Rule Phase I (2001)

OTC's Phase I Model Rule was issued in 2001. The key difference between the 2011 and 2001 Model Rules is in updates (in 2011) of VOC content labeling requirements and addition or modification of specific label statements for several product types.

Several states currently implement the 2001 OTC Model Rule, please refer to the AIM VOC Map found on the AIM VOC Committee website, which includes links to the various rules. Please review each individual state rule for the effective dates.

IV. Lake Michigan Air Directors Consortium (LADCO)

States surrounding Lake Michigan formed the Lake Michigan Air Directors Consortium (LADCO) in 1989 to coordinate policies addressing interstate air pollution and Clean Air Act compliance. Current LADCO members include: Illinois, Indiana, Michigan, Wisconsin, Ohio, and Minnesota. LADCO focuses on air monitoring and modelling to equip member states to develop joint approaches to air pollution control.

LADCO does not issue model rules. Rather, it encourages members to follow OTC model rule adoption. Illinois, Indiana, and Ohio have adopted rules consistent with OTC's Model Rule (2002). Minnesota, Michigan, and Wisconsin follow the National AIM rule. Please refer to the AIM VOC Map found on the AIM VOC Committee website, which includes links to the various LADCO rules. Please review each individual state rule for the effective dates.

V. SCAQMD Rule 443 – Labeling of Solvents

Manufacturers must label products with organic solvent sold in containers of sizes of 1 quart up to 40 gallons with information stating whether the solvent is photochemically reactive, as defined in Rule 102.

Manufacturers must label products with organic solvents sold in containers of 40 gallons or more with the total percentage by volume of the solvents listed under the definition of photochemically reactive solvent in Rule 102.

Rule 443 is available online.

Similarly, SCAQMD requires additional labeling for coatings, excluding architectural coatings, containing VOCs. These requirements are detailed in Rule 443.1 – Labeling of Materials Containing Organic Solvents.

Aerosol Coatings

Labeling for Maximum Incremental Reactivity and/or Volatile Organic Compound Content

Regulations applicable to aerosol coatings currently exist at the federal level and in the States of California, Portland, Oregon, and Washington. In Canada, the Province of Vancouver has an aerosol coatings requirement.

Federal Aerosol Coatings Requirement

Federal Aerosol Coatings requirements are at [40 CFR Part 59, Subpart E](#).

The regulation defines an aerosol coating product at [40 CFR Part 59.503](#):

Aerosol Coating Product means a pressurized coating product containing pigments or resins that is dispensed 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. For the purpose of this regulation, applicable aerosol coatings categories are listed in Table 1 of this subpart.

Labeling requirement is contained in [Section 59.507](#). Covered products must be labeled with:

- Aerosol coating category code from Table 1 or from a company-specific code with adequate explanation.
- The applicable product-weighted reactivity (PWR) limit from Table 1.
- Day, month and year of manufacture or a code indicating the same.
- Name and a contact address for the responsible manufacturer, distributor, or importer.

¹ "MIR" is the maximum incremental reactivity and means the maximum change in weight of ozone formed by adding a compound to the mixture of reactive organic gases utilized in deriving the MIR scale. Instead of establishing VOC content limits as a "percent volatile organic compounds by weight" or a percentage of the formula, reactivity standards are stated in terms of a "product-weighted MIR value." CARB's aerosol rule contains such standards for different types of aerosol categories.

State-Level Requirements for Aerosol Coatings

Under California's Clean Air Act, CARB has authority to regulate aerosol coatings, with an exception for the San Francisco Bay Area, with the Bay Area AQMD's Rule 49 still in effect. CARB adopted its aerosol rule, [17 CCR Article 3, Sections 94521, et. seq.](#), in June 2000, becoming the first rule to implement a reactivity standard, measuring ozone formation potential, rather than a mass-based requirement.

Prior regulations implementing a mass-based standard include:

- CARB's prior mass-based rule for the state of California,
- California Bay Area's [Rule 8-49](#),
- SWAPCA's 493-200 (Vancouver, Washington), and
- OAR 340-22-910 (Portland, Oregon).

With some exceptions, these rules contained identical VOC standards and labeling requirements.

CARB's aerosol rule has been in effect since July 18, 2001. In effect, manufacturers must ensure that aerosol coatings meet reactivity and the remaining mass-based standards. In addition, manufacturers must consider labeling requirements of California's reactivity regulation and the remaining VOC regulations.

Labeling Requirements Under CARB's Reactivity Regulation

CARB's aerosol labeling requirement is at [17 CCR Article 3, Sections 94524](#).

Covered aerosols are required to display three items on the label:

- Applicable reactivity limit for the product, i.e., a product-weighted MIR value;
- Aerosol coatings category or an abbreviation of the category as specified in the rule; and
- Day, month, and year on which the product was manufactured, or a code indicating such date.

The above information must be readily observable without removing or disassembling any portion of the product container or packaging, and it may be displayed on the bottom of the container so long as it is clearly legible without removing any packaging.

Manufacturers may use codes or abbreviations to convey any of the required information; however, an explanation of the code or abbreviation must be submitted to the CARB Executive Officer prior to use of the code.

Labeling Requirements Under the Remaining Mass-Based VOC Rules

The mass-based rules in the Bay Area, Portland, Oregon and Vancouver, Washington require that the following information be readily observable upon handheld inspection without removing or disassembling any package:

- Maximum VOC content of the product (the standard as established in the rule);
- Spray paint category or abbreviation of such category as defined in the rule; and
- Date of manufacture of the product or a code indicating such.

Bay Area Air Quality Management District's (BAAQMD) Rule 49

The Rule is available at: [Section 8-49-401](#)

Each container of any aerosol paint product manufactured for sale, sold, or offered for sale within the BAAQMD shall be permanently and exclusively labeled by coating type and shall display the maximum organic compound content expressed as percent VOC.

² While CARB has sole authority to regulate aerosol coatings under the California Clean Air Act, the Bay Area's rule is still enforceable because it was promulgated pursuant to a court order. Therefore, the CARB rule for aerosol coatings governs all of California except for the Bay Area.

³ The reactivity standards replaced extremely stringent VOC standards that were scheduled to become effective during 1999. The text of the final regulation order can be downloaded from ACA's Spray Paint Manufacturers Committee webpage at <http://www.paint.org/member/committee/spmc.htm>

Portland Air Quality Management Area OAR 340-22-910 (Portland, Oregon)

The following information should be readily observable upon handheld inspection without removing or disassembling any packaging:

1. Maximum VOC content of the product, expressed as a percentage by weight;
2. Spray paint category or abbreviation of such category as defined in the regulation;
3. Date of manufacture of the product, or a code indicating such date.

Southwest Clear Air Agency (Washington State)

SWCAA (Southwest Clean Air Agency) prescribes requirements for aerosols in [Rule 493—200](#). The provisions of this regulation apply within the Southwest region of Washington State in the counties of Clark, Cowlitz, Lewis, Skamania, and Wahkiakum Counties.