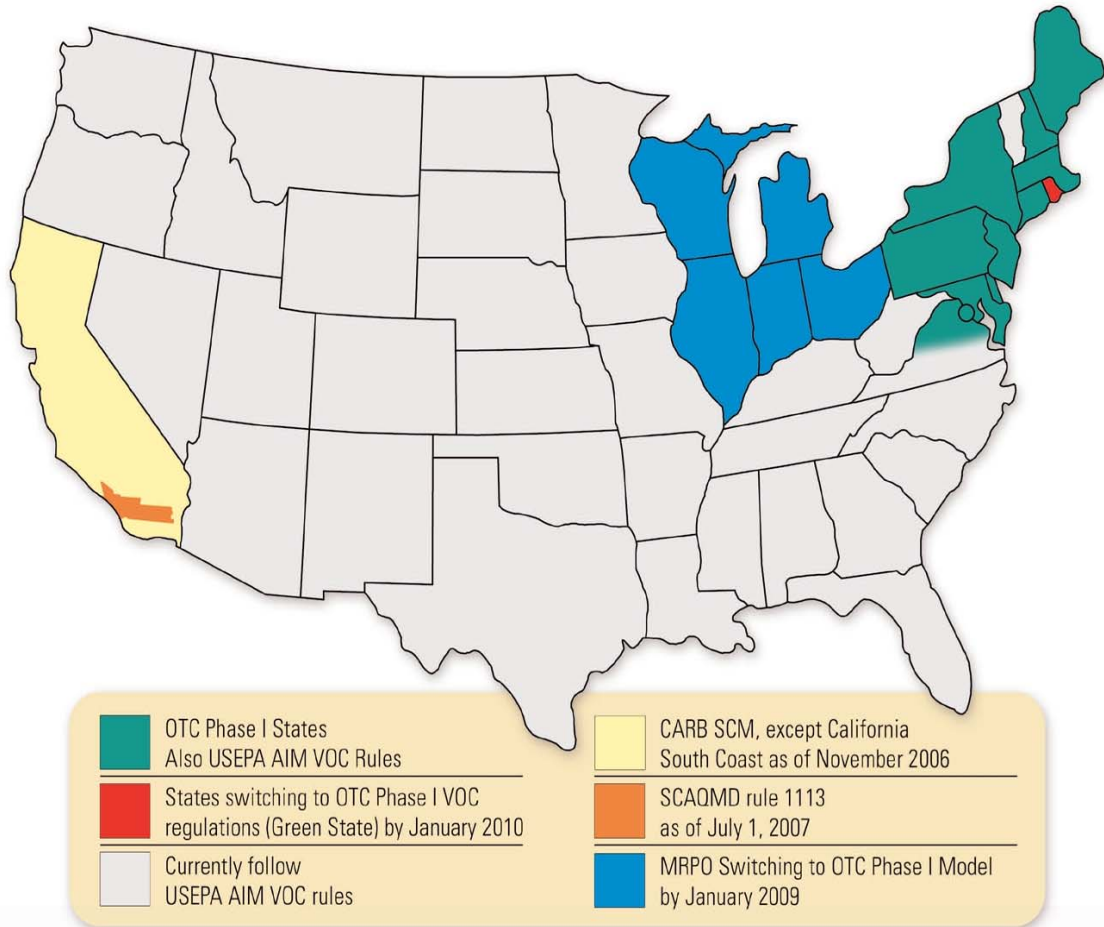


## VOC Rules and Charts, up-dated December 2008

### New VOC Regulations from US EPA, OTC, CARB, and SCAQMD

These new regulations lower the amount of Volatile Organic Content (VOC) emitted from architectural and industrial maintenance (AIM) coatings. All states are affected, with greatest changes taking place in California, the Northeast, and Mid-Atlantic regions. Most states will be affected as of January 01, 2009.

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## VOC Rules and Charts, up-dated December 2008

New regional VOC regulations (OTC, CARB, SCAQMD) differ from U.S. Environmental Protection Agency (USEPA AIM) national VOC standards. In general, the new regional regulations are more restrictive in lowering the maximum amount of VOC's allowed in these areas. USEPA regulations also permit manufacturers to pay an "exceedance fee" in order to supply non-compliant specialty products. That is not allowed in the regions adopting the new regulations.

Although the new regulations affect what products distributors in these areas can buy from Vexcon after effective dates, "sell-through" provisions let distributors sell inventory of affected coatings manufactured on or before the effective dates.

The new regulations affect the following product categories sold by Vexcon;

- Waterproofing Concrete/Masonry Coatings
- Floor Coatings
- Floor Treatments
- Cure & Seal Coatings
- Penetrating Sealers
- Water & Stain Repellents
- Form Treatments
- Paver Treatments
- Curing Compounds
- Waterproof Acrylic Coatings

All Vexcon products comply presently with US EPA AIM VOC rules and regional VOC regulations. Regions and states vary significantly, and the tables below include example limits on a range of product categories. This information has been obtained from sources believed to be accurate. The most current information can be obtained by consulting each agency. Consult your local, state, regional or federal authorities for more information on rules applicable to your area. Consult Vexcon Customer Service or your Vexcon representative at (215) 332-7709 or (888) 839-2661 for more information on how our materials comply with various rules.

### **Category Examples under Various State and Regional Standards currently enforced**

#### **United States Environmental Protection Agency (USEPA)**

The USEPA AIM VOC national rule remains unchanged. The Agency is developing a rule update that likely will incorporate OTC definitions and limits and be consistent with upcoming Canadian regulations. USEPA may release a proposed rule with implementation in 2010.

USEPA AIM VOC regulations differ from state and local counterparts. Unlike other standards, the national rule does not set an absolute cap on coatings VOC content. Manufacturers may opt to pay an annual, per gallon exceedance fee in order to maintain availability of specialty products in the marketplace.

## VOC Rules and Charts, up-dated December 2008

National AIM rule, January 2005 (regulated by EPA) = **US EPA AIM** = Federal AIM VOC  
40 CFR Part 59 Subpart D under authority of Section 183(e) of the Clean Air Act

Bond Breakers	600 g/L
Concrete Protective Coatings	400 g/L
Waterproofing Sealers and Treatments	600 g/L
Concrete Curing Compounds	350 g/L
Concrete Curing and Sealing Compounds	700 g/L
Concrete Surface Retarders	780 g/L
Form Release Compounds	450 g/L
Industrial Maintenance	450 g/L

<http://www.epa.gov/ttn/atw/183e/aim/aimpg.html>

<http://www.epa.gov/EPA-AIR/1998/September/Day-11/a22659.htm>

\*New Rule expected 2007, implementation 2009

\*Expected to follow OTC Phase I Model Rule

### California Air Resources Board (CARB)

In 2007, CARB completed rulemaking for an update of its AIM VOC rule effective January 1, 2010. The current rule is very similar to the OTC model rule. The 2010 rule incorporates category, definition and limit changes.

California except South Coast: **CARB SCM** (Suggested Control Measure) categories

	<u>November 2006</u>	<u>January 1, 2010</u>
Bond Breakers	350 g/L	350 g/L
Concrete Curing Compounds	350 g/L	350 g/L
Industrial Maintenance	250 g/	250 g/L
Primer, Sealer and Undercoaters	200 g/L	100 g/L
Stain	250 g/L	250 g/L
Waterproofing Concrete / Masonry Sealers	400 g/L	N/A
Form Release Compounds	250 g/L	250 g/L
Floor Coatings	250 g/L	100 g/L
Waterproofing Membranes	N/A	250 g/L
Reactive Penetrating Sealer	N/A	350 g/L

<http://www.arb.ca.gov/coatings/arch/VOCLimits.htm>

### South Coast Air Quality Management District (SCAQMD)

The 2006 revisions to SCAQMD Rule 1113 for AIM VOCs are still in effect. Not to be mistaken with the State of California, SCAQMD is comprised of a number of cities in the greater Los Angeles basin. South Coast writes its own regulation separate from the California Air Resources Board (CARB). Rule 1113 is the most stringent architectural coatings standard in the world and eliminates many coatings technologies.

## VOC Rules and Charts, up-dated December 2008

California South Coast: **SCAQMD Rule 1113**, July 1 2007 (plus Antelope Valley/Mojave Desert)

Bond Breakers	350 g/L
Concrete-Curing Compounds	100 g/L (350 g/l if labeled For Roads & Bridges Only)
Floor Coatings	50 g/L
Industrial Maintenance Coatings	100 g/L
Primer, Sealers and Undercoaters	100 g/L
Stain	100 g/L
Stain (interior)	250 g/L
Waterproofing Concrete/Masonry Sealers	100 g/L

<http://www.aqmd.gov/rules/download.html> Rule 1113

### Northeast Ozone Transport Commission (OTC)

The OTC is a coalition of 13 northeastern states working cooperatively to solve regional ozone problems. While they work collectively, each state acts autonomously on rule adoption. The OTC created a model AIM VOC rule that many member states have adopted; some with minor modifications. The model OTC rule is generally based on the current California regulation but with higher limits for industrial maintenance coatings.

The states and districts with OTC rules include Connecticut, Massachusetts, Maryland, New Jersey, New York, Pennsylvania, Delaware, Maine, New Hampshire, the District of Columbia and portions of Virginia. Virginia counties are Arlington, Fairfax, Loudoun, Prince William, and Stafford, including the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park. On January 1, 2008, Virginia added the Fredericksburg area to its regulated zone.

Connecticut adopted its rule in 2007 with an effective date of May 1, 2008. Massachusetts adopted its rule in 2007 with a January 1, 2009 effective date. Both rules include three year sell-through provisions for products manufactured before the effective dates.

Sell-through periods are limited in New York, New Hampshire and Virginia. New York's sell-through period ended May 15, 2007. Virginia's sell-through period ended December 31, 2007. New Hampshire's sell-through period expires January 1, 2010. The other OTC states have unlimited sell-through periods. Coatings manufactured before individual state regulation effective dates may be applied any time.

Rhode Island is reportedly working on its own yet-to-be-published rule

Northeast and Mid-Atlantic: **OTC Phase I Model Rule**, January 1 2005

Industrial Maintenance	340 g/L (Model Rule is 250 g/L; states select 340 g/L)
Primers, Sealers and Undercoaters	200 g/L
Stains	250 g/L
Waterproofing Concrete/Masonry Sealers	400 g/L
Bond Breakers	350 g/L
Form-Release Compounds	250 g/L
Concrete Curing Compounds	350 g/L

<http://www.otcair.org>

\*OTC Phase II Revision expected for early 2009

## VOC Rules and Charts, up-dated December 2008

Massachusetts Final Rule 310 CMR 7.25 (11), effective January 1, 2009 (follows OTC Phase I)

Bond Breakers	350 g/L
Concrete Curing Compounds	350 g/L
Concrete Surface Retarders	780 g/L
Floor Coatings	250 g/L
Form-Release Compounds	250 g/L
Industrial Maintenance Coatings	340 g/L
Non-flat Coatings	150 g/L
Non-flat High Gloss Coatings	250 g/L
Primers, Sealers, and Undercoaters	200 g/L
Waterproofing Concrete/Masonry Sealers	400 g/L

<http://www.mass.gov/dep/air/laws/aimcpfr.pdf>

Ohio draft rule: Ohio Administrative Code (OAC) 3745-113

\*Implementation date of 2008 – Expected to resemble OTC Phase I Model Rule

<http://www.epa.state.oh.us/dapc/regs/3745-113/3745-113SYNPropp.pdf>

### Lake Michigan Air Director's Consortium (LADCO)

LADCO is a cooperative air quality group comprised of Illinois, Indiana, Wisconsin, Michigan and Ohio. It is a looser coalition than the OTC with no AIM VOC model rule. Each state operates independently and selects VOC rules as they see fit. States enacting rules have so far opted for the OTC model rule.

Illinois is nearing completion of rule adoption to be effective January 1, 2009. It is substantially similar to the OTC rule.

Ohio's AIM VOC rule mirrors the OTC model and will be effective January 1, 2009 with a three year sell-through period.

### LADCO/MRPO Candidate Control Measures

Options:

- Keep Federal AIM rules 40CFR Part 59
- Adopt **OTC Phase I Model Rule**
- Adopt SCAQMD Phase III Dec 2003 rule
- Develop Reactivity-Based Limits

\*Expected to follow OTC Phase I Model Rule – full implementation projected 2009

<http://www.ladco.org>

### Key to Acronyms

AIM:	Architectural, Industrial, Maintenance
CARB:	California Air Resource Board = Cal/EPA ARB
EPA:	Environmental Protection Agency
LADCO:	Lake Michigan Air Directors Consortium (Illinois, Indiana, Mich., Wisc.)
MRPO:	Midwest Regional Planning Organization (IL, IN, Mich., Ohio, Wisc.)
OTC:	Ozone Transport Commission (CT, DE, D.C., ME, MD, MA, NH, NJ, NY, PA, RI, VT, VA)
SCAQMD:	South Coast Air Quality Management

Information contained herein is for informational purposes only and is based solely on information available to Vexcon and the general public as of the date of this document. Vexcon does not guarantee the accuracy of this information nor makes any assumptions or future predictions what so ever.