

ILLINOIS REGISTER

ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF PROPOSED RULES

- 1) Heading of the Part: Standards and Limitations for Organic Material Emissions for Area Sources
- 2) Code Citation: 35 Ill. Adm Code Part 223
- 3)

<u>Section Numbers:</u>	<u>Proposed Action:</u>
223.100	New
223.105	New
223.110	New
223.120	New
223.200	New
223.201	New
223.205	New
223.206	New
223.207	New
223.208	New
223.209	New
223.210	New
223.220	New
223.230	New
223.240	New
223.245	New
223.250	New
223.255	New
223.260	New
223.265	New
223.270	New
223.275	New
223.280	New
223.285	New
223.300	New
223.305	New
223.307	New
223.310	New
223.320	New
223.330	New
223.340	New
223.350	New
223.360	New
223.370	New

ILLINOIS REGISTER

ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF PROPOSED RULES

223.400	New
223.405	New
223.407	New
223.410	New
223.420	New
223.430	New
223.440	New
223.450	New
223.460	New
Appendix A	New
Appendix B	New

- 4) Statutory Authority: Sections 27 and 28 of the Illinois Environmental Protection Act. [415 ILCS 5/27 and 28]
- 5) A Complete Description of the Subjects and Issues Involved : These regulations are proposed in order to attain the new USEPA ozone NAAQS by 2010 and to protect the health of Illinois citizens. The regulations seek to reduce volatile organic material emissions (“VOM”) from various consumer products, architectural and industrial maintenance products, and aerosol coatings. If adopted, the rule will take effect on January 1, 2009. These products represent significant, yet widely diffuse, sources of VOM and are comprised of the various forms of consumer products used by individual households and small businesses. Together, these items emit about 10% of the total anthropogenic VOM emissions from sources in Illinois.
- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: The regulatory proposal included the Illinois EPA’s *Technical Support Document* that relied on several published studies and reports. Copies of the documents the Illinois EPA relied upon are available for review with the Pollution Control Board.
- 7) Will this proposed rule replace an emergency rule currently in effect? No.
- 8) Does this rulemaking contain an automatic repeal date? No.
- 9) Does this proposed rule (amendment, repealer) contain incorporations by reference? Yes.
- 10) Are there any other proposed amendments pending on this Part? No.

ILLINOIS REGISTER

ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF PROPOSED RULES

- 11) Statement of Statewide Policy Objective: This proposed rule does not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act. [30 ILCS 805/3(b) (2002)].
- 12) Time, Place, and Manner in which interested persons may comment on this proposed rulemaking: The Illinois Environmental Protection Agency will accept written public comments on this proposal for a period of forty-five (45) days after the date of publication in the Illinois Register. Comments should reference the Consumer Products/AIM/Aerosol Rule and be addressed to:

Charles E. Matoesian
Assistant Counsel
Illinois Environmental Protection Agency
Division of Legal Counsel
1021 North Grand Avenue East
P.O. Box 19726
Springfield, Illinois 62794-9276
217/782-5544
217/782-9143(TDD)

- 13) Initial Regulatory Flexibility Analysis:
 - A) Types of small businesses, small municipalities and not for profit corporations affected: This proposed regulation will have a modest impact on small businesses throughout the State.
 - B) Reporting, Bookkeeping or other procedures required for compliance: No new forms of recordkeeping are projected to be needed. Although a new topic for some companies, most calculations will be familiar. Standard bookkeeping and recordkeeping skills will suffice. Many larger companies are already performing the reporting, bookkeeping and compliance duties in other states.
 - C) Types of professional skills necessary for compliance: Traditional accounting skills and recordkeeping skills will suffice. No new professional skills will be necessary.
- 14) Regulatory Agenda on which this rulemaking was summarized: July 2007

ILLINOIS REGISTER

ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF PROPOSED RULES

The full text of the Proposed Rule(s) begins on the next page:

**TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER**

PART 223

**STANDARDS AND LIMITATIONS FOR ORGANIC MATERIAL EMISSIONS FOR AREA
SOURCES**

SUBPART A: GENERAL PROVISIONS

Section

- 223.100 Severability
- 223.105 Abbreviations and Acronyms
- 223.120 Incorporations by Reference

SUBPART B: CONSUMER AND COMMERCIAL PRODUCTS

Section

- 223.200 Purpose
- 223.201 Applicability
- 223.203 Definitions for Subpart B
- 223.205 Standards
- 223.206 Diluted Products
- 223.207 Products registered under FIFRA
- 223.208 Requirements for Aerosol Adhesives
- 223.209 Requirements for Floor Wax Strippers
- 223.210 Products Containing Ozone-Depleting Compounds
- 223.220 Requirements for Charcoal Lighter Material
- 223.230 Exemptions
- 223.240 Innovative Product Exemption
- 223.245 Alternative Control Plans
- 223.250 Product Dating
- 223.255 Additional Product Dating Requirements
- 223.260 Most Restrictive Limit
- 223.265 Additional Labeling Requirements for Aerosol Adhesives, Adhesive Removers, Electronic Cleaner, Electrical Cleaner, Energized Electrical Cleaner, and Contact Adhesives
- 223.270 Reporting Requirements
- 223.275 Special Recordkeeping Requirements for Consumer Products that Contain Perchloroethylene or Methylene Chloride
- 223.280 Calculating Illinois Sales
- 223.285 Test Methods

SUBPART C: ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS

Section	
223.300	Purpose
223.305	Applicability
223.307	Definitions for Subpart C
223.310	Standards
223.320	Container Labeling Requirements
223.330	Reporting Requirements
223.340	Compliance Provisions and Test Methods
223.350	Alternative Test Methods
223.360	Methacrylate Traffic Coating Markings
223.370	Test Methods

SUBPART D: AEROSOL COATINGS

Section	
223.400	Purpose
223.405	Applicability
223.407	Definitions for Subpart D
223.410	Limits and Requirements for Aerosol Coating Products
223.420	Exemptions
223.430	Most Restrictive Limit
223.440	Labeling Requirements
223.450	Reporting Requirements
223.460	Test Methods

APPENDIX A MAXIMUM INCREMENTAL REACTIVITY
APPENDIX B MIR VALUES FOR HYDROCARBON SOLVENTS

AUTHORITY : Implementing Section 10 [415 ILCS 5/10] and authorized by Sections 27 and 28 of the Environmental Protection Act [415 ILCS 5/27 and 28] .

SOURCE: Adopted at _ Ill . Reg. , effective

SUBPART A : GENERAL PROVISIONS

Section 223.100 Severability

If any Section, subsection, or clause of this Part is found invalid, such finding shall not affect the validity of this Part as a whole or any Section, subsection, or clause not found invalid.

Section 223.105 Abbreviations and Acronyms

Unless otherwise specified within this Part, the abbreviations used in this Part shall be the same as those found in 35 Ill. Adm. Code 211. The following abbreviations and acronyms are used in this Part:

ACP	Alternative Control Plan
Act	Environmental Protection Act [415 ILCS 5/1 et seq.]
Agency	Illinois Environmental Protection Agency
ASTM	American Society for Testing and Materials
BAAQMD	Bay Area Air Quality Management District
CARB	California Air Resources Board
°C	Degrees Celsius
CFCs	Chlorofluorocarbons
CO ₂	Carbon Dioxide
°F	Degrees Fahrenheit
FDA	United States Food and Drug Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §§136 through 136y
FRP	Fiberglass reinforced plastic
HVOM	High Volatility Organic Material
HCFCs	Hydrochlorofluorocarbons
HFCs	Hydrofluorocarbons
LVP-VOM	Low Vapor Pressure – Volatile Organic Material
MIR	Maximum Incremental Reactivity
MVOM	Medium Volatility Organic Material
N ₂	Nitrogen
N ₂ O	Nitrous Oxide
OER	Original Equipment Manufacturer
PCBTF	Parachlorobenzotrifluoride
PWMIR	Product-Weighted Maximum Incremental Reactivity
ROC	Reactive Organic Compound
ROG	Reactive Organic Gas
SCAQMD	South Coast Air Quality Management District
USEPA	United States Environmental Protection Agency
ULKR	Upper-Limit Kinetic Reactivity
ULMIR	Upper-Limit Maximum Incremental Reactivity
ULMR	Upper-Limit Mechanistic Reactivity
VOM	Volatile Organic Material

Section 223.120 Incorporations by Reference

The following materials are incorporated by reference. These incorporations do not include any later amendments or editions.

- a) 40 CFR 59, Subpart D, Appendix A, Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings, 64 Fed. Reg. 35002 (June 30, 1999).
- b) 40 CFR 59, Subpart C, National Volatile Organic Compound Emission Standards for Consumer Products, (April 4, 2004).

- c) 40 CFR 60, Appendix A, Method 24, Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings (July 1, 2006).
- d) 40 CFR 82, Subpart A, Production and Consumption Controls, Appendices A and B July 1, 2006.
- e) 29 CFR 1910.1200(d)(4), Hazard Communication July 1, 2006.
- f) American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA, 19103.
 - 1) ASTM E119-05a, Standard Test Methods for Fire Tests of Building Construction and Materials, approved November 1, 2005.
 - 2) ASTM Designation D523-89, Standard Test Method for Specular Gloss, approved May 10, 1999.
 - 3) ASTM D1640-03, Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature, approved December 1, 2003.
 - 4) ASTM Method D 3912-95, Test Method for Chemical Resistance of Coating Used in Light-Water Nuclear Power Plants, approved 2001.
 - 5) ASTM Method D 4082-02, Test Method for Effects of Radiation on Coatings Used in Light-Water Nuclear Power Plants, approved 2002.
 - 6) ASTM Designation D4214-98, Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films, approved August 10, 1998.
 - 7) ASTM D1613-03, Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products, approved October 1, 2003.
 - 8) ASTM E84-07, Standard Test Method for Surface Burning Characteristics of Building Materials, approved 2007.
 - 9) ASTM D4359-90, Standard Test Method for Determining Whether a Material is a Liquid or a Solid, approved 2006.
 - 10) ASTM E260-96, Standard Practice for Packed Column Gas Chromatography, reapproved 2006.

- 11) ASTM D5043-04, Standard Test Methods for Field Identification of Coatings, approved 2004.
 - 12) ASTM E2167-01, "Standard Guide for Selection and Use of Stone Consolidants" (see section 4, Stone Consolidant), approved 2001.
 - 13) ASTM C836-06, Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course, approved 2006.
- g) South Coast Air Quality Management District (SCAQMD) Method 304-91, Determination of Volatile Organic Compounds in Various Materials, revised February 1996.
 - h) SCAQMD Method 303-91, Determination of Exempt Compounds, revised February 1993.
 - i) SCAQMD Method 318-95, Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction, approved August 10, 1998.
 - j) Bay Area Air Quality Management District (BAAQMD) Method 43, Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials, amended May 18, 2005.
 - k) BAAQMD Method 41, Determination of Volatile Organic Compounds in Solvent-Based Coatings and Related Materials Containing Parachlorobenzotri fluoride, amended May 18, 2005.
 - l) California Air Resources Board (CARB) Method 310, Determination of Volatile Organic Compounds in Consumer Products and Reactive Organic Compounds in Aerosol Coating Products, amended May 5, 2005.
 - m) SCAQMD Rule 1174, Ignition Method Compliance Certification Protocol (February 27, 1991).
 - n) Cal. Admin. Code title 17 § 94509(h), Standards for Consumer Products (2005).
 - o) California Code, Health and Safety Code, § 41712(h)(2) (2005).
 - p) Cal. Admin. Code title 17, Article 4, Alternate Control Plan §§ 94540-94555, (1996).
 - q) Cal. Admin. Code title 17 § 94511, Innovative Products (1997).
 - r) Cal. Admin. Code title 17 § 94503.5, Innovative Products (1996).

- s) 7 USC 136 to 136y, FIFRA, Environmental Pesticide Control, published January 19, 2004, in Supplement III of the 2000 Edition of the United States Code.
- t) Federal Specification MMM-A-181D, Adhesives, Phenol, Resorcinol, or Melamine Base (1980).

SUBPART B: CONSUMER AND COMMERCIAL PRODUCTS

Section 223.200 Purpose

The purpose of this Subpart is to limit emissions of volatile organic materials (VOMs) by requiring reductions in the VOM content of consumer and commercial products.

Section 223.201 Applicability

Except as provided in Section 223.230, below, this Subpart shall apply to any person who sells, supplies, offers for sale, or manufactures consumer products on or after January 1, 2009, for use in Illinois.

Section 223.203 Definitions for Subpart B

The definitions contained in this Section apply only to the provisions of this Subpart. Unless otherwise defined herein, the definitions of terms used in this Subpart shall have the meanings specified for those terms in 35 Ill. Adm. Code Part 211.

“Adhesive” means for purposes of this Part, any product that is used to bond one surface to another by attachment. This does not include products used on humans and animals, adhesive tape, contact paper, wallpaper, shelf liners, or any other product with an adhesive incorporated onto or in an inert substrate. For “Contact Adhesive,” adhesive does not include units of product, less packaging, which consist of more than one gallon. For “Construction, Panel, and Floor Covering Adhesive,” and “General Purpose Adhesive,” “Adhesive” does not include units of product, less packaging, which weigh more than one pound and consist of more than 16 fluid ounces. This limitation does not apply to aerosol adhesives.

“Adhesive Remover” means a product designed to remove adhesives from either a specific substrate or a variety of substrates. “Adhesive Remover” does not include products that remove adhesives intended exclusively for use on humans or animals.

For the purpose of this definition and “Adhesive Remover” subcategories below, the term “Adhesive” shall mean a substance used to bond one or more materials. Adhesive includes, but is not limited to caulks, sealants, glues, or similar substances used for the purpose of forming a bond.

“Floor and Wall Covering Adhesive Remover” means a product designed or labeled to remove floor or wall coverings and associated adhesive from the underlying substrate.

“Gasket or Thread Locking Adhesive Remover” means a product designed or labeled to remove gaskets or thread locking adhesives. Products labeled for dual use as a paint stripper and gasket remover and/or thread locking adhesive remover are considered “Gasket or Thread Locking Adhesive Remover.”

“General Purpose Adhesive Remover” means a product designed or labeled to remove cyanoacrylate adhesives as well as non-reactive adhesives or residue from a variety of substrates. “General Purpose Adhesive Remover” includes, but is not limited to the following: products that remove thermoplastic adhesives, pressure sensitive adhesives, dextrine or starchbased adhesives, casein glues, rubber or latex-based adhesives, and products that remove stickers, decals, stencils, or similar materials. “General Purpose Adhesive Remover” does not include “Floor or Wall Covering Adhesive Remover.”

“Specialty Adhesive Remover” means a product designed to remove reactive adhesives from a variety of substrates. Reactive adhesives include adhesives that require a hardener or catalyst in order for the bond to occur. Examples of reactive adhesives include, but are not limited to epoxies, urethanes, and silicones. “Specialty Adhesive Remover” does not include “Gasket or Thread Locking Adhesive Remover.”

“Aerosol adhesive” means an aerosol product in which the spray mechanism is permanently housed in a nonrefillable can designed for hand-held application without the need for ancillary hoses or spray equipment. This does not include “special purpose spray adhesives,” “mist spray adhesives” and “web spray adhesives.”

“Aerosol cooking spray” means any aerosol product designed either to reduce sticking on cooking and baking surfaces or to be applied on food, or both.

“Aerosol Product” means a pressurized spray system that dispenses product ingredients by means of a propellant contained in a product or a product's container, or by means of a mechanically induced force. “Aerosol Product” does not include “Pump Spray.”

“Agricultural use” means the use of any pesticide or method or device for the control of pests in connection with the commercial production, storage, or processing of any animal or plant crop. This does not include the sale or use of pesticides in properly labeled packages or containers that are intended for home use, use in structural pest control, industrial or institutional use. For the purposes of this definition only:

“Home use” means use in a household or its immediate environment;

“Structural pest control” means a use requiring a license under the Structural Pest Control Act, 225 ILCS 235;

“Industrial use” means use for or in a manufacturing, mining, or chemical process or use in the operation of factories, processing plants, and similar sites; or

“Institutional use” means use within the lines of, or on property necessary for the operation of, buildings such as hospitals, schools, libraries, auditoriums, and office complexes.

“Air Freshener” means any consumer product including, but not limited to, sprays, wicks, powders, and crystals, designed for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. “Air Freshener” does not include products that are used on the human body, products that function primarily as cleaning products as indicated on a product label, “Toilet/Urinal Care Products,” disinfectant products claiming to deodorize by killing germs on surfaces, or institutional and industrial disinfectants when offered for sale solely through institutional and industrial channels of distribution.

“Air Freshener” does include spray disinfectants and other products that are expressly represented for use as air fresheners, except institutional and industrial disinfectants when offered for sale through institutional and industrial channels of distribution. To determine whether a product is an air freshener, all verbal and visual representations regarding product use on the label or packaging and in the product's literature and advertising may be considered. The presence of, and representations about, a product's fragrance and ability to deodorize (resulting from surface application) shall not constitute a claim of air freshening.

“All Other Carbon-Containing Compounds” means all other compounds which contain at least one carbon atom and are not listed under Section 223.205(a) or are a “LVP-VOM.”

“All Other Forms” means all consumer product forms for which no form-specific VOM standard is specified. Unless specified otherwise by the applicable VOM standard, “All Other Forms” include, but are not limited to, solids, liquids, wicks, powders, crystals, and cloth or paper wipes (towelettes).

“Alternative Control Plan or ACP” means any emissions averaging program approved by the Agency pursuant to the provisions of this regulation.

“Antimicrobial Hand or Body Cleaner or Soap” means a cleaner or soap which is designed to reduce the level of microorganisms on the skin through germicidal activity. This includes, but is not limited to, antimicrobial hand or body washes/cleaners, foodhandler hand washes, healthcare personnel hand washes, pre-operative skin preparations and surgical scrubs. “Antimicrobial Hand or Body Cleaner or Soap” does not include prescription drug products, antiperspirants, “Astringent/Toner,” deodorant, “Facial Cleaner or Soap,” “General-use Hand or Body Cleaner or Soap,” “Hand

Dishwashing Detergent” (including antimicrobial), “Heavy-duty Hand Cleaner or Soap,” “Medicated Astringent/Medicated Toner,” and “Rubbing Alcohol.”

“Antiperspirant” means any product including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that is intended by the manufacturer to be used to reduce perspiration in the human axilla by at least 20 percent in at least 50 percent of a target population.

“Anti-Static Product” means a product that is labeled to eliminate, prevent, or inhibit the accumulation of static electricity. “Anti-Static Product” does not include “Electronic Cleaner,” “Floor Polish or Wax,” “Floor Coating,” and products that meet the definition of “Aerosol Coating Product” or “Architectural Coating.”

“Appurtenance” means any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to, bathroom and kitchen fixtures, cabinets, concrete forms, doors, elevators, fences, hand railings, heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools, lampposts, partitions pipes and piping systems, rain gutters and downspouts, stairways, fixed ladders, catwalks and fire escapes, and window screens.

“Architectural Coating” means for purposes of this Part, a coating to be applied to stationary structures or the appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered “Architectural Coatings” for the purposes of this rule.

“Astringent/Toner” means any product not regulated as a drug by the United States Food and Drug Administration (FDA) which is applied to the skin for the purpose of cleaning or tightening pores. This category also includes clarifiers and substrate-impregnated products. This category does not include any hand, face, or body cleaner or soap product, “Medicated Astringent/Medicated Toner,” cold cream, lotion, or antiperspirant.

“Automotive Brake Cleaner” means a cleaning product designed to remove oil, grease, brake fluid, brake pad material or dirt from motor vehicle brake mechanisms.

“Automotive Hard Paste Wax” means an automotive wax or polish which is designed to protect and improve the appearance of automotive paint surfaces, and is a solid at room temperature, and contains 0% water by formulation.

“Automotive Instant Detailer” means a product designed for use in a pump spray that is applied to the painted surface of automobiles and wiped off prior to the product being allowed to dry.

“Automotive Rubbing or Polishing Compound” means a product designed primarily to remove oxidation, old paint, scratches or swirl marks, and other defects from the painted surfaces of motor vehicles without leaving a protective barrier.

“Automotive Wax, Polish, Sealant, or Glaze” means a product designed to seal out moisture, increase gloss, or otherwise enhance a motor vehicle’s painted surfaces. This includes, but is not limited to, products designed for use in autobody repair shops and drive-through car washes, as well as products designed for the general public. The term does not include “Automotive Rubbing or Polishing Compounds,” automotive wash and wax products, surfactant-containing car wash products, and products designed for use on unpainted surfaces such as bare metal, chrome, glass, or plastic.

“Automotive Windshield Washer Fluid” means any liquid designed for use in a motor vehicle windshield washer system either as an antifreeze or for the purpose of cleaning, washing, or wetting the windshield. This does not include fluids placed by the manufacturer in a new vehicle.

“Bathroom and Tile Cleaner” means a product designed to clean tile or surfaces in bathrooms. The term does not include products designed primarily to clean toilet bowls, toilet tanks or urinals.

“Bug and Tar Remover” means a product labeled to remove either or both of the following from painted motor vehicle surfaces without causing damage to the finish: biological-type residues such as insect carcasses, tree sap and road grime, such as road tar, roadway paint markings, and asphalt.

“Carburetor or Fuel-Injection Air Intake Cleaners” means a product designed to remove fuel deposits, dirt, or other contaminants from a carburetor, choke, throttle body of a fuel-injection system, or associated linkages, excluding products designed exclusively to be introduced directly into the fuel lines or fuel storage tank prior to introduction into the carburetor or fuel injectors.

“Carpet and Upholstery Cleaner” means a cleaning product designed for the purpose of eliminating dirt and stains on rugs, carpeting, and the interior of motor vehicles and/or on household furniture or objects upholstered or covered with fabrics such as wool, cotton, nylon or other synthetic fabrics. This includes, but is not limited to, products that make fabric protectant claims. The term does not include “General Purpose Cleaners,” “Spot Removers,” vinyl or leather cleaners, dry cleaning fluids, or products designed exclusively for use at industrial facilities engaged in furniture or carpet manufacturing.

“Charcoal Lighter Material” means any combustible material designed to be applied on, incorporated in, added to, or used with charcoal to enhance ignition. The term does not include any of the following: electrical starters and probes, metallic cylinders using paper tinder, natural gas, propane, and fat wood.

“Colorant” means for purposes of Subpart B, any pigment or coloring material used in a consumer product for an aesthetic effect, or to dramatize an ingredient. For purposes of Subpart C, “Colorant” means a concentrated pigment dispersion in water, solvent, and/or

binder that is added to an architectural coating after packaging in sale units to produce the desired color.

“Construction, Panel, and Floor Covering Adhesive” means any one-component adhesive that is designed exclusively for the installation, remodeling, maintenance, or repair of structural and building components that include, but are not limited to, beams, trusses, studs, paneling (including, but not limited to, drywall or drywall laminates, fiberglass reinforced plastic (FRP), plywood, particle board, insulation board, pre-decorated hardboard or tileboard), ceiling and acoustical tile, molding, fixtures, countertops or countertop laminates, cove or wall bases, flooring or subflooring; or floor or wall coverings that include, but are not limited to, wood or simulated wood covering, carpet, carpet pad or cushion, vinyl-backed carpet, flexible flooring material, nonresilient flooring material, mirror tiles and other types of tiles, and artificial grass. The term does not include “Floor Seam Sealer.”

“Consumer” means any person who purchases or acquires any consumer product for personal, family, household, or institutional use. Persons acquiring a consumer product for resale are not “consumers” for that product.

“Consumer Product” means a chemically formulated product used by household and institutional consumers including, but not limited to detergents, cleaning compounds, polishes, floor finishes, cosmetics, personal care products; home, lawn, and garden products, disinfectants, sanitizers, aerosol paints, and automotive specialty products. “Consumer Product” does not include other paint products, furniture coatings, or architectural coatings. As used in this rule, “Consumer Products” shall also refer to “Aerosol Adhesives,” including “Aerosol Adhesives” used for consumer, industrial or commercial uses.

“Contact Adhesive” means an adhesive that is designed for application to both surfaces to be bonded together, and is allowed to dry before the two surfaces are placed in contact with each other, and forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other, and does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces. The term does not include rubber cements that are primarily intended for use on paper substrates. “Contact Adhesive” also does not include vulcanizing fluids that are designed and labeled for tire repair only.

“Contact Adhesive - General Purpose” means any contact adhesive that is not a “Contact Adhesive - Special Purpose.”

“Contact Adhesive - Special Purpose” means a contact adhesive that is used to bond melamine-covered board, unprimed metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, rubber, high pressure laminate or wood veneer 1/16 inch or less in thickness to any porous or nonporous surface, and is sold in units of product, less packaging, that contain more than eight fluid ounces, or is used in automotive

applications that are either automotive under the-hood applications requiring heat, oil or gasoline resistance, or body-side molding, automotive weatherstrip or decorative trim.

“Container/Packaging” means the part or parts of the consumer or institutional product which serve only to contain, enclose, incorporate, deliver, dispense, wrap or store the chemically formulated substance or mixture of substances which is solely responsible for accomplishing the purposes for which the product was designed or intended. This includes any article onto or into which the principal display panel and other accompanying literature or graphics are incorporated, etched, printed or attached.

“Crawling Bug Insecticide” means any insecticide product that is designed for use against ants, cockroaches, or other household crawling arthropods, including, but not limited to, mites, silverfish or spiders, excluding products designed to be used exclusively on humans or animals, or any house dust mite product. For the purposes of this definition only:

“House dust mite product” means a product whose label, packaging, or accompanying literature states that the product is suitable for use against house dust mites, but does not indicate that the product is suitable for use against ants, cockroaches, or other household crawling arthropods.

“House dust mite” means mites which feed primarily on skin cells shed in the home by humans and pets and which belong to the phylum Arthropoda, the subphylum Chelicerata, the class Arachnida, the subclass Acari, the order Astigmata, and the family Pyroglyphidae.

“Date-Code” means the day, month and year on which the consumer product was manufactured, filled, or packaged, or a code indicating such a date.

“Deodorant” means:

For products manufactured before January 1, 2009: any product including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that is intended by the manufacturer to be used to minimize odor in the human axilla by retarding the growth of bacteria which cause the decomposition of perspiration.

For products manufactured on or after January 1, 2009: any product including, but not limited to, aerosol, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that indicates or depicts on the container or packaging, or on any sticker or label affixed thereto, that the product can be used on or applied to the human axilla to provide a scent and/or minimize odor. A “Deodorant Body Spray” product that indicates or depicts on the container or packaging, or on any sticker or label affixed thereto, that it can be used on or applied to the human axilla, is a “Deodorant”

“Deodorant Body Spray” means

For products manufactured before January 1, 2009, a “Personal Fragrance Product” with 20 percent or less fragrance.

For products manufactured on or after January 1, 2009, a “Personal Fragrance Product” with 20 percent or less fragrance, that is designed for application all over the human body to provide a scent. A “Deodorant Body Spray” product that indicates or depicts on the container or packaging, or on any sticker or label affixed thereto, that it can be used on or applied to the human axilla, is a “Deodorant”

“Device” means any instrument or contrivance (other than a firearm) which is designed for trapping, destroying, repelling, or mitigating any pest or any other form of plant or animal life (other than man and other than bacterium, virus, or another microorganism on or in living man or other living animals) but not including equipment used for the application of pesticides when sold separately therefrom.

“Disinfectant” means any product intended to destroy or irreversibly inactivate infectious or other undesirable bacteria, pathogenic fungi, or viruses on surfaces or inanimate objects and whose label is registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 U.S.C. 136, et seq.). “Disinfectant” does not include any of the following products designed solely for use on human or animals, products designed for agricultural use, products designed solely for use in swimming pools, therapeutic tubs, or hot tubs, products which, as indicated on the principal display panel or label, are designed primarily for use as bathroom and tile cleaners, glass cleaners, general purpose cleaners, toilet bowl cleaners, or metal polishes.

“Double Phase Aerosol Air Freshener” means an aerosol air freshener with the liquid contents in two or more distinct phases that require the product container be shaken before use to mix the phases, producing an emulsion.

“Dry Cleaning Fluid” means any non-aqueous liquid product designed and labeled exclusively for use on fabrics which are labeled “for dry clean only,” such as clothing or drapery, or “S-coded” fabrics. This includes, but is not limited to, those products used by commercial dry cleaners and commercial businesses that clean fabrics such as draperies at the customer’s residence or work place. The term does not include “Spot Remover” or “Carpet and Upholstery Cleaner.” For the purposes of this definition, “S-coded fabric” means an upholstery fabric designed to be cleaned only with water-free spot cleaning products as specified by the Joint Industry Fabric Standards Committee.

“Dusting Aid” means a product designed to assist in removing dust and other soils from floors and other surfaces without leaving a wax or silicone based coating. The term does not include “Pressurized Gas Duster”.

“Electrical Cleaner” means a product labeled to remove heavy soils such as grease, grime, or oil from electrical equipment, including, but not limited to, electric motors, armatures, relays, electric panels, or generators. The term does not include “General Purpose Cleaner,” “General Purpose Degreaser,” “Dusting Aid,” “Electronic Cleaner,” “Energized Electrical Cleaner,” “Pressurized Gas Duster,” “Engine Degreaser,” “Anti-Static Product,” or products designed to clean the casings or housings of electrical equipment.

“Electronic Cleaner” means a product labeled for the removal of dirt, moisture, dust, flux or oxides from the internal components of electronic or precision equipment such as circuit boards, and the internal components of electronic devices, including but not limited to, radios, compact disc (CD) players, digital video disc (DVD) players, and computers. “Electronic Cleaner” does not include “General Purpose Cleaner,” “General Purpose Degreaser,” “Dusting Aid,” “Pressurized Gas Duster,” “Engine Degreaser,” “Electrical Cleaner,” “Energized Electrical Cleaner,” “Anti-Static Product,” or products designed to clean the casings or housings of electronic equipment.

“Energized Electrical Cleaner” means a product that meets both of the following criteria:

The product is labeled to clean and/or degrease electrical equipment, where cleaning and/or degreasing is accomplished when electrical current exists, or when there is a residual electrical potential from a component, such as a capacitor;

The product label clearly displays the statements: “Energized Equipment use only. Not to be used for motorized vehicle maintenance, or their parts.”

This does not include “Electronic Cleaner.”

“Engine Degreaser” means a cleaning product designed to remove grease, grime, oil and other contaminants from the external surfaces of engines and other mechanical parts.

“Existing Product” means any formulation of the same product category and form sold, supplied, manufactured, or offered for sale in Illinois prior to January 1, 2009, or any subsequently introduced identical formulation.

“Fabric Protectant” means a product designed to be applied to fabric substrates to protect the surface from soiling from dirt and other impurities or to reduce absorption of liquid into the fabric's fibers. The term does not include waterproofers, products designed for use solely on leather, or products designed for use solely on fabrics which are labeled “for dry clean only” and sold in containers of 10 fluid ounces or less.

“Fabric Refresher” means a product labeled to neutralize or eliminate odors on non-laundered fabric including, but not limited to, soft household surfaces, rugs, carpeting, draperies, bedding, automotive interiors, footwear, athletic equipment, clothing and/or on household furniture or objects upholstered or covered with fabrics such as, but not limited to, wool, cotton, or nylon. “Fabric Refresher” does not include “Anti-static Product,”

“Carpet and Upholstery Cleaner,” “Soft Household Surface Sanitizers,” “Footwear or Leather Care Product,” “Spot Remover,” or “Disinfectant,” or products labeled for application to both fabric and human skin.

For the purposes of this definition only, “Soft Household Surface Sanitizer” means a product labeled to neutralize or eliminate odors on surfaces listed above whose label is registered as a sanitizer under the Federal Insecticide, Fungicide, and Rodenticide Act, (FIFRA, 7 U.S.C. 136 et seq.).

“Facial Cleaner or Soap” means a cleaner or soap designed primarily to clean the face including, but not limited to facial cleansing creams, semisolids, liquids, lotions, and substrate-impregnated forms. The term does not include prescription drug products, “Antimicrobial Hand or Body Cleaner or Soap,” “Astringent/Toner,” “General-use Hand or Body Cleaner or Soap,” “Medicated Astringent/Medicated Toner,” or “Rubbing Alcohol.”

“Fat Wood” means pieces of wood kindling with high naturally-occurring levels of sap or resin which enhance ignition of the kindling, excluding any kindling with substances added to enhance flammability, such as wax-covered or wax-impregnated wood-based products.

“Faux Finishing Coating” means a coating labeled and formulated as a stain or a glaze to create artistic effects including, but not limited to, dirt, old age, smoke damage, and simulated marble and wood grain.

“Flea and Tick Insecticide” means any insecticide product that is designed for use against fleas, ticks, their larvae, or their eggs. The term does not include products that are designed to be used exclusively on humans or animals and their bedding.

“Flexible Flooring Material” means asphalt, cork, linoleum, no-wax, rubber, seamless vinyl and vinyl composite flooring.

“Floor Coating” means an opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, and other horizontal surfaces, which may be subjected to foot traffic.

“Floor Polish or Wax” means a wax, polish, or any other product designed to polish, protect, or enhance floor surfaces by leaving a protective coating that is designed to be periodically replenished. The term does not include “Spray Buff Products,” products designed solely for the purpose of cleaning floors, floor finish strippers, products designed for unfinished wood floors, and coatings subject to architectural coatings regulations.

“Floor Seam Sealer” means any product designed and labeled exclusively for bonding, fusing, or sealing (coating) seams between adjoining rolls of installed flexible sheet flooring.

“Floor Wax Stripper” means a product designed to remove natural or synthetic floor polishes or waxes through breakdown of the polish or wax polymers, or by dissolving or emulsifying the polish or wax. This does not include aerosol floor wax strippers or products designed to remove floor wax solely through abrasion.

“Flying Bug Insecticide” means any insecticide product that is designed for use against flying insects or other flying arthropods, including but not limited to flies, mosquitoes, moths, or gnats. The term does not include “Wasp and Hornet Insecticide,” products that are designed to be used exclusively on humans or animals, or any moth-proofing product.

For the purposes of this definition only, “Moth-Proofing Product” means a product whose label, packaging, or accompanying literature indicates that the product is designed to protect fabrics from damage by moths, but does not indicate that the product is suitable for use against flying insects or other flying arthropods.

“Footwear or Leather Care Product” means any product designed or labeled to be applied to footwear or to other leather articles/components, to maintain, enhance, clean, protect, or modify the appearance, durability, fit, or flexibility of the footwear or leather article/component. Footwear includes both leather and non-leather foot apparel.

“Footwear or Leather Care Product” does not include “Fabric Protectant,” “General Purpose Adhesive,” “Contact Adhesive,” “Vinyl/Fabric/Leather/Polycarbonate Coating,” “Rubber and Vinyl Protectant,” “Fabric Refresher,” products solely for deodorizing, or sealant products with adhesive properties used to create external protective layers greater than two millimeters thick.

“Fragrance” means a substance or complex mixture of aroma chemicals, natural essential oils, and other functional components with a combined vapor pressure not in excess of two mm of Hg at 20°C, the sole purpose of which is to impart an odor or scent, or to counteract a malodor.

“Furniture Maintenance Product” means a wax, polish, conditioner, or any other product designed for the purpose of polishing, protecting or enhancing finished wood surfaces other than floors. The term does not include “Dusting Aids,” “Wood Cleaners” and products designed solely for the purpose of cleaning, and products designed to leave a permanent finish such as stains, sanding sealers and lacquers.

“Furniture Coating” means any paint designed for application to room furnishings including, but not limited to, cabinets (kitchen, bath and vanity), tables, chairs, beds, and sofas.

“Gel” means a colloid in which the disperse phase has combined with the continuous phase to produce a semisolid material, such as jelly.

“General Purpose Adhesive” means any non-aerosol adhesive designed for use on a variety of substrates. The term does not include contact adhesives, construction, panel, and floor covering adhesives, adhesives designed exclusively for application on one specific category of substrates (i.e., substrates that are composed of similar materials, such as different types of metals, paper products, ceramics, plastics, rubbers, or vinyls), or adhesives designed exclusively for use on one specific category of articles (i.e., articles that may be composed of different materials but perform a specific function, such as gaskets, automotive trim, weather-stripping, or carpets).

“General Purpose Cleaner” means a product designed for general all-purpose cleaning, in contrast to cleaning products designed to clean specific substrates in certain situations. This includes products designed for general floor cleaning, kitchen or countertop cleaning, and cleaners designed to be used on a variety of hard surfaces, and does not include “General Purpose Degreasers” and “Electronic cleaners.”

“General Purpose Degreaser” means any product labeled to remove or dissolve grease, grime, oil and other oil-based contaminants from a variety of substrates, including automotive or miscellaneous metallic parts. This does not include “Engine Degreaser,” “General Purpose Cleaner,” “Adhesive Remover,” “Electronic Cleaner,” “Electrical Cleaner,” “Energized Electrical Cleaner,” “Metal Polish/Cleanser,” products used exclusively in “Solvent Cleaning Tanks or Related Equipment,” or products that are sold exclusively to establishments which manufacture or construct goods or commodities, and labeled “not for retail sale.”

“Solvent cleaning tanks or related equipment” includes, but is not limited to, cold cleaners, vapor degreasers, conveyORIZED degreasers, film cleaning machines, or products designed to clean miscellaneous metallic parts by immersion in a container.

“General-use Hand or Body Cleaner or Soap” means a cleaner or soap designed to be used routinely on the skin to clean or remove typical or common dirt and soils, including, but not limited to, hand or body washes, dual-purpose shampoo-body cleaners, shower or bath gels, and moisturizing cleaners or soaps. The term does not include prescription drug products, “Antimicrobial Hand or Body Cleaner or Soap,” “Astringent/Toner,” “Facial Cleaner or Soap,” “Hand Dishwashing Detergent” (including antimicrobial), “Heavy-duty Hand Cleaner or Soap,” “Medicated Astringent/Medicated Toner,” or “Rubbing Alcohol.”

“Glass Cleaner” means a cleaning product designed primarily for cleaning surfaces made of glass. The term does not include products designed solely for the purpose of cleaning optical materials used in eyeglasses, photographic equipment, scientific equipment and photocopying machines.

“Graffiti Remover” means a product labeled to remove spray paint, ink, marker, crayon, lipstick, nail polish, or shoe polish, from a variety of non-cloth or nonfabric substrates. The term does not include “Paint Remover or Stripper,” “Nail Polish Remover,” or “Spot

Remover.” Products labeled for dual use as both a paint stripper and graffiti remover are considered “Graffiti Removers.”

“Hair Mousse” means a hairstyling foam designed to facilitate styling of a coiffure and provide limited holding power.

“Hair Shine” means any product designed for the primary purpose of creating a shine when applied to the hair. This includes, but is not limited to, dual-use products designed primarily to impart a sheen to the hair. The term does not include “Hair spray,” “Hair Mousse,” “Hair Styling Product,” “Hair Styling Gel,” or products whose primary purpose is to condition or hold the hair.

“Hair Styling Gel” means a consumer product manufactured before January 1, 2009, that is a high viscosity, often gelatinous, product that contains a resin and is designed for the application to hair to aid in styling and sculpting of the hair coiffure.

“Hair spray” means:

For products manufactured before January 1, 2009, a consumer product designed primarily for the purpose of dispensing droplets of a resin on and into a hair coiffure which will impart sufficient rigidity to the coiffure to establish or retain the style for a period of time; and

For products manufactured on or after January 1, 2009, a consumer product that is applied to styled hair, and is designed or labeled to provide sufficient rigidity, to hold, retain and/or (finish) the style of the hair for a period of time. This includes aerosol hair sprays, pump hair sprays, spray waxes; color, glitter, or sparkle hairsprays that make finishing claims; and products that are both a styling and finishing product. This does not include spray products that are intended to aid in styling but does not provide finishing of a hairstyle. For the purposes of this Part, “Finish” or “Finishing” means the maintaining and/or holding of previously styled hair for a period of time. For the purposes of this Part, “Styling” means the forming, sculpting, or manipulating the hair to temporarily alter the hair's shape.

“Hair Styling Product” means a consumer product manufactured on or after January 1, 2009, that is designed or labeled for the application to wet, damp or dry hair to aid in defining, shaping, lifting, styling and/or sculpting of the hair. This includes, but is not limited to hair balm, clay, cream, creme, curl straightener, gel, liquid, lotion, paste, pomade, putty, root lifter, serum, spray gel, stick, temporary hair straightener, wax, spray products that aid in styling but do not provide finishing of a hairstyle, and leave-in volumizers, detanglers and/or conditioners that make styling claims. This does not include “Hair Mousse” “Hair Shine,” “Hair Spray,” or shampoos and/or conditioners that are rinsed from the hair prior to styling. For the purposes of this Part, “Finish” or “Finishing” means the maintaining and/or holding of previously styled hair for a period of time. For the purposes of this Part, “Styling” means the forming, sculpting, or manipulating the hair to temporarily alter the hair's shape.

“Heavy-Duty Hand Cleaner or Soap” means a product designed to clean or remove difficult dirt and soils such as oil, grease, grime, tar, shellac, putty, printer’s ink, paint, graphite, cement, carbon, asphalt, or adhesives from the hand with or without the use of water. The term does not include prescription drug products, “Antimicrobial Hand or Body Cleaner or Soap,” “Astringent/Toner,” “Facial Cleaner or Soap,” “General-use Hand or Body Cleaner or Soap,” “Medicated Astringent/Medicated Toner” or “Rubbing Alcohol.”

“Herbicide” means a pesticide product designed to kill or retard a plant’s growth, but excludes products that are for agricultural use, or restricted materials that require a permit for use and possession.

“High Volatility Organic Material (HVOM)” or “High Volatility Organic Compound” means any volatile organic material or volatile organic compound that exerts a vapor pressure greater than 80 millimeters of Mercury (mm Hg) when measured at 20°C.

“Household Product” means any consumer product that is primarily designed to be used inside or outside of living quarters or residences that are occupied or intended for occupation by individuals, including the immediate surroundings.

“Illinois Sales” means the sales (net pounds of product, less packaging and container, per year) in Illinois for either the calendar year immediately prior to the year that the registration is due or, if that data is not available, any consecutive 12 month period commencing no earlier than two years prior to the due date of the registration. If direct sales data for Illinois is not available, sales may be estimated by prorating national or regional sales data by population.

“Industrial use” means use for or in a manufacturing, mining, or chemical process or use in the operation of factories, processing plants, and similar sites.

“Insecticide” means a pesticide product that is designed for use against insects or other arthropods, but excluding products that are for agricultural use, for a use which requires a structural pest control license under the Structural Pest Control Act, 225 ILCS 235, or restricted materials that require a permit for use and possession.

“Insecticide Fogger” means any insecticide product designed to release all or most of its content, as a fog or mist, into indoor areas during a single application.

“Institutional Product” or “Industrial and Institutional (I&I) Product” means a consumer product that is designed for use in the maintenance or operation of an establishment that manufactures, transports, or sells goods or commodities, or provides services for profit, or is engaged in the nonprofit promotion of a particular public, educational, or charitable cause. “Establishments” include, but are not limited to, government agencies, factories, schools, hospitals, sanitariums, prisons, restaurants, hotels, stores, automobile service and parts centers, health clubs, theaters, or transportation companies. This does not include

household products and products that are incorporated into or used exclusively in the manufacture or construction of the goods or commodities at the site of the establishment.

“Label” means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any consumer product or consumer product package, for purposes of branding, identifying, or giving information with respect to the product or to the contents of the package.

“Lacquer” means for purposes of Subparts B and C of this Part, a clear or opaque wood coating, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film. For purposes of Subpart D of this Part, “Lacquer” means a thermoplastic film-forming material dissolved in organic solvent, which dries primarily by solvent evaporation, and is resoluble in its original solvent.

“Laundry Prewash” means a product that is designed for application to a fabric prior to laundering and that supplements and contributes to the effectiveness of laundry detergents and/or provides specialized performance.

“Laundry Starch Product” means a product that is designed for application to a fabric, either during or after laundering, to impart and prolong a crisp, fresh look and may also act to help ease ironing of the fabric. This includes, but is not limited to, fabric finish, sizing, and starch.

“Lawn and Garden Insecticide” means an insecticide product labeled primarily to be used in household lawn and garden areas to protect plants from insects or other arthropods. Notwithstanding the requirements of Section 223.260 aerosol “Lawn and Garden Insecticides” may claim to kill insects or other arthropods.

“Liquid” means a substance or mixture of substances which is capable of a visually detectable flow as determined under ASTM D-4359-90(2000)e1, including any subsequent amendments or an equivalent method approved by the California Air Resources Board. This does not include powders or other materials that are composed entirely of solid particles.

“Lubricant” means a product designed to reduce friction, heat, noise, or wear between moving parts, or to loosen rusted or immovable parts or mechanisms. This does not include automotive power steering fluids; products for use inside power generating motors, engines, and turbines, and their associated power-transfer gearboxes; two cycle oils or other products designed to be added to fuels; products for use on the human body or animals; or products that are sold exclusively to establishments which manufacture or construct goods or commodities, and labeled “not for retail sale.”

“LVP Content” means the total weight, in pounds, of LVP compounds in an ACP product multiplied by 100 and divided by the product's total net weight (in pounds, excluding container and packaging), expressed to the nearest 0.1.

“LVP-VOM” or “LVP-VOC” means a chemical “material” or “mixture” or “compound” that contains at least one carbon atom and meets one of the following:

Has a vapor pressure less than 0.1 mm Hg at 20°C, as determined by CARB Method 310; or

Is a chemical “material” or “compound” with more than 12 carbon atoms, or a chemical “mixture” comprised solely of “material” or a “compound” with more than 12 carbon atoms as verified by formulation data, and the vapor pressure and boiling point are unknown; or

Is a chemical “material” or “compound” with a boiling point greater than 216°C, as determined by CARB Method 310; or

Is the weight percent of a chemical “mixture” that boils above 216°C, as determined by CARB Method 310.

For the purposes of the definition of LVP-VOM, chemical “material” or “compound” means a molecule of definite chemical formula and isomeric structure, and chemical “mixture” means a substrate comprised of two or more chemical “materials” or “compounds.”

“Medicated Astringent /Medicated Toner” means any product regulated as a drug by the FDA which is applied to the skin for the purpose of cleaning or tightening pores. This includes, but is not limited to, clarifiers and substrate-impregnated products. The term does not include hand, face, or body cleaner or soap products, “Astringent/Toner,” cold cream, lotion, antiperspirants, or products that must be purchased with a doctor’s prescription.

“Medium Volatility Organic Material (MVOM)” or “Medium Volatility Organic Compound (MVOC)” means any volatile organic material or volatile organic compound that exerts a vapor pressure greater than two mm Hg and less than or equal to 80 mm Hg when measured at 20°C.

“Metal Polish /Cleanser” means any product designed primarily to improve the appearance of finished metal, metallic, or metallized surfaces by physical or chemical action. To “improve the appearance” means to remove or reduce stains, impurities, or oxidation from surfaces or to make surfaces smooth and shiny. This includes, but is not limited to, metal polishes used on brass, silver, chrome, copper, stainless steel and other ornamental metals. The term does not include “Automotive Wax, Polish, Sealant or Glaze,” wheel cleaner, “Paint Remover or Stripper,” products designed and labeled exclusively for automotive and marine detailing, or products designed for use in degreasing tanks.

“Mist Spray Adhesive” means any aerosol which is not a special purpose spray adhesive and which delivers a particle or mist spray, resulting in the formation of fine, discrete particles that yield a generally uniform and smooth application of adhesive to the substrate.

“Multi-purpose Dry Lubricant” means any lubricant which is designed and labeled to provide lubricity by depositing a thin film of graphite, molybdenum disulfide (“moly”), or polytetrafluoroethylene or closely related fluoropolymer (“teflon”) on surfaces, and designed for general purpose lubrication, or for use in a wide variety of applications.

“Multi-purpose Lubricant” means any lubricant designed for general purpose lubrication, or for use in a wide variety of applications. The term does not include “Multi-purpose Dry Lubricants,” “Penetrants,” or “Silicone-based Multi-purpose Lubricants.”

“Multi-purpose Solvent” means any organic liquid designed to be used for a variety of purposes, including cleaning or degreasing of a variety of substrates, or thinning, dispersing or dissolving other organic materials. This includes solvents used in institutional facilities, except for laboratory reagents used in analytical, educational, research, scientific or other laboratories. This does not include solvents used in cold cleaners, vapor degreasers, conveyorized degreasers or film cleaning machines, or solvents that are incorporated into, or used exclusively in the manufacture or construction of the goods or commodities at the site of the establishment.

“Nail Polish” means any clear or colored coating designed for application to the fingernails or toenails and including but not limited to lacquers, enamels, acrylics, base coats and top coats.

“Nail Polish Remover” means a product designed to remove nail polish and coatings from fingernails or toenails.

“Non-aerosol Product” means any consumer product that is not dispensed by a pressurized spray system.

“Non-Carbon Containing Compound” means any compound which does not contain any carbon atoms.

“Nonresilient Flooring” means flooring of a mineral content which is not flexible. This includes terrazzo, marble, slate, granite, brick, stone, ceramic tile and concrete.

“Non-Selective Terrestrial Herbicide” means a terrestrial herbicide product that is toxic to plants without regard to species.

“Oven Cleaner” means any cleaning product designed to clean and to remove dried food deposits from oven walls.

“Paint” means any pigmented liquid, liquefiable, or mastic composition designed for application to a substrate in a thin layer which is converted to an opaque solid film after application and is used for protection, decoration or identification, or to serve some functional purpose such as the filling or concealing of surface irregularities or the modification of light and heat radiation characteristics.

“Paint Remover or Stripper” means any product designed to strip or remove paints or other related coatings, by chemical action, from a substrate without markedly affecting the substrate. This does not include “Multi-purpose Solvents,” paint brush cleaners, products designed and labeled exclusively as “Graffiti Removers,” and hand cleaner products that claim to remove paints and other related coatings from skin.

“Penetrant” means a lubricant designed and labeled primarily to loosen metal parts that have bonded together due to rusting, oxidation, or other causes. The term does not include “Multi-purpose Lubricants” that claim to have penetrating qualities, but are not labeled primarily to loosen bonded parts.

“Personal Fragrance Product” means any product which is applied to the human body or clothing for the primary purpose of adding a scent or masking a malodor, including cologne, perfume, aftershave, and toilet water. This does not include “Deodorant,” medicated products designed primarily to alleviate fungal or bacterial growth on feet or other areas of the body; mouthwashes, breath fresheners and deodorizers; lotions, moisturizers, powders or other skin care products used primarily to alleviate skin conditions such as dryness and irritations; products designed exclusively for use on human genitalia; soaps, shampoos, and products primarily used to clean the human body; and fragrance products designed to be used exclusively on non-human animals.

“Pesticide” means and includes any substance or mixture of substances labeled, designed, or intended for use in preventing, destroying, repelling or mitigating any pest, or any substance or mixture of substances labeled, designed, or intended for use as a defoliant, desiccant, or plant regulator, provided that the term “Pesticide” will not include any substance, mixture of substances, or device which the United States Environmental Protection Agency does not consider to be a pesticide.

“Photograph Coating” means a coating designed and labeled exclusively to be applied to finished photographs to allow corrective retouching, protection of the image, changes in gloss level, or to cover fingerprints.

“Pressurized Gas Duster” means a pressurized product labeled to remove dust from a surface solely by means of mass air or gas flow, including surfaces such as photographs, photographic film negatives, computer keyboards, and other types of surfaces that cannot be cleaned with solvents. This does not include “Dusting Aid.”

“Principal Display Panel or Panels” means that part, or those parts of a label that are so designed as to most likely be displayed, presented, shown or examined under normal and customary conditions of display or purchase. Whenever a principal display panel appears

more than once, all requirements pertaining to the “Principal Display Panel” shall pertain to all such “Principal Display Panels.”

“Product Brand Name” means the name of the product exactly as it appears on the principal display panel of the product.

“Product Category” means the applicable category which best describes the product as listed in this Section 223.203 and in the limits in Section 223.205(a).

“Product Form” for the purpose of complying with Section 223.270 only, means the applicable form which most accurately describes the product's dispensing form as follows:

- A = Aerosol Product
- S = Solid
- P = Pump Spray
- L = Liquid
- SS = Semisolid
- O = Other

“Product Line” means a group of products of identical form and function belonging to the same product category(ies).

“Pump Spray” means a packaging system in which the product ingredients within the container are not under pressure and in which the product is expelled only while a pumping action is applied to a button, trigger or other actuator.

“Responsible ACP Party” means the company, firm or establishment which is listed on the ACP product's label. If the label lists two or more companies, firms, or establishments, the “Responsible ACP Party” is the party which the ACP product was “manufactured for” or “distributed by,” as noted on the label.

“Restricted Materials” means pesticides established as restricted materials under applicable Illinois Laws or Regulations.

“Roll-on Product” means any antiperspirant or deodorant that dispenses active ingredients by rolling a wetted ball or wetted cylinder on the affected area.

“Rubber and Vinyl Protectant” means any product designed to protect, preserve or renew vinyl, rubber, and plastic on vehicles, tires, luggage, furniture, and household products such as vinyl covers, clothing, and accessories. This does not include products primarily designed to clean the wheel rim, such as aluminum or magnesium wheel cleaners, and tire cleaners that do not leave an appearance-enhancing or protective substance on the tire.

“Rubbing Alcohol” means any product containing isopropyl alcohol (also called isopropanol) or denatured ethanol and labeled for topical use, usually to decrease germs in minor cuts and scrapes, to relieve minor muscle aches, as a rubefacient, and for massage.

“Rust Preventive Coating” means a coating formulated exclusively for nonindustrial use to prevent the corrosion of metal surfaces and labeled as specified in Section 223.320(f).

“Sanding Sealer” means for purposes of this Part, a clear or semi-transparent wood coating labeled and formulated for application to bare wood to seal the wood and to provide a coat that can be abraded to create a smooth surface for subsequent applications of coatings. A “Sanding Sealer” that also meets the definition of a “Lacquer” is not included in this category, but it is included in the “Lacquer” category.

“Sealant and Caulking Compound” means any product with adhesive properties that is designed to fill, seal, waterproof, or weatherproof gaps or joints between two surfaces. This does not include roof cements and roof sealants, insulating foams, removable caulking compounds, clear/paintable/water resistant caulking compounds, floor seam sealers, products designed exclusively for automotive uses, or sealers that are applied as continuous coatings. The term also does not include units of product, less packaging, which weigh more than one pound and consist of more than 16 fluid ounces.

For the purposes of this definition only, “removable caulking compounds” means a compound which temporarily seals windows or doors for three to six month time intervals, and “clear/paintable/water resistant caulking compounds” means a compound which contains no appreciable level of opaque fillers or pigments; transmits most or all visible light through the caulk when cured; is paintable; and is immediately resistant to precipitation upon application.

“Semisolid” means a product that, at room temperature, will not pour, but will spread or deform easily, including but not limited to gels, pastes, and greases.

“Shaving Cream” means an aerosol product which dispenses a foam lather intended to be used with a blade or cartridge razor, or other wet-shaving system, in the removal of facial or other bodily hair. The term does not include “Shaving Gel.”

“Shaving Gel” means an aerosol product which dispenses a post-foaming semisolid designed to be used with a blade, cartridge razor, or other shaving system in the removal of facial or other bodily hair. This does not include “Shaving Cream.”

“Silicone-based Multi-purpose Lubricant” means any lubricant which is designed and labeled to provide lubricity primarily through the use of silicone compounds including, but not limited to, polydimethylsiloxane; and designed and labeled for general purpose lubrication, or for use in a wide variety of applications. The term does not include products designed and labeled exclusively to release manufactured products from molds.

“Single Phase Aerosol Air Freshener” means an aerosol air freshener with the liquid contents in a single homogeneous phase and which does not require that the product container be shaken before use.

“Solid” means a substance or mixture of substances which, either whole or subdivided (such as the particles comprising a powder), is not capable of visually detectable flow as determined under ASTM D-4359-90(2000)e1, or an equivalent method approved by the California Air Resources Board.

“Special Purpose Spray Adhesive” means an aerosol adhesive that meets any of the following definitions:

“Mounting Adhesive” means an aerosol adhesive designed to permanently mount photographs, artwork, and any other drawn or printed media to a backing (paper, board, cloth, etc.) without causing discoloration to the artwork.

“Flexible vinyl adhesive” means an aerosol adhesive designed to bond flexible vinyl to substrates. Flexible vinyl means a nonrigid polyvinyl chloride plastic with at least five percent, by weight, of plasticizer content. A plasticizer is a material, such as a high boiling point organic solvent, that is incorporated into a plastic to increase its flexibility, workability, or distensibility, and may be determined using ASTM Method E260-91, or from product formulation data or an equivalent method approved by the CARB.

“Polystyrene Foam Adhesive” means an aerosol adhesive designed to bond polystyrene foam to substrates.

“Automobile Headliner Adhesive” means an aerosol adhesive designed to bond together layers in motor vehicle headliners.

“Polyolefin Adhesive” means an aerosol adhesive designed to bond polyolefins to substrates.

“Laminate Repair/Edgebanding Adhesive” means an aerosol adhesive designed for:

The touch-up or repair of items laminated with high pressure laminates (e.g., lifted edges, delaminates, etc.); or

The touch-up, repair, or attachment of edgebanding materials, including but not limited to, other laminates, synthetic marble, veneers, wood molding, and decorative metals.

For the purposes of this definition “high pressure laminate” means sheet materials which consist of paper, fabric, or other core material that have

been laminated at temperatures exceeding 265 degrees F, and at pressures between 1,000 and 1,400 psi.

“Automotive Engine Compartment Adhesive” means an aerosol adhesive designed for use in motor vehicle under-the-hood applications which require oil and plasticizer resistance, as well as high shear strength, at temperatures of 200 - 275 degrees F.

“Spot Remover” means any product labeled to clean localized areas, or remove localized spots or stains on cloth or fabric such as drapes, carpets, upholstery, and clothing, that does not require subsequent laundering to achieve stain removal. This does not include “Dry Cleaning Fluid,” “Laundry Prewash,” or “Multi-purpose Solvent.”

“Spray Buff Product” means a product designed to restore a worn floor finish in conjunction with a floor buffing machine and special pad.

“Stick Product” means any antiperspirant or deodorant that contains active ingredients in a solid matrix form, and that dispenses the active ingredients by frictional action on the affected area.

“Structural Waterproof Adhesive” means an adhesive whose bond lines are resistant to conditions of continuous immersion in fresh or salt water, and that conforms with Federal Specification MMM-A-181D (Type 1, Grade A), and MIL-A-4605 (Type A, Grade A and Grade C), per the Federal Consumer Products Regulation 40 CFR59 Subpart C.

“Terrestrial” means to live on or grow from land.

“Tire Sealant and Inflation” means any pressurized product that is designed to temporarily inflate and seal a leaking tire.

“Toilet/Urinal Care Product” means any product designed or labeled to clean and/or to deodorize toilet bowls, toilet tanks, or urinals. Toilet bowls, toilet tanks, or urinals includes, but is not limited to, toilets or urinals connected to permanent plumbing in buildings and other structures, portable toilets or urinals placed at temporary or remote locations, and toilet or urinals in vehicles such as buses, recreational motor homes, boats, ships, and aircraft. This does not include “Bathroom and Tile Cleaner” or “General Purpose Cleaner.”

“Type A Propellant” means a compressed gas such as CO₂, N₂, N₂O, or compressed air which is used as a propellant, and is either incorporated with the product or contained in a separate chamber within the product's packaging.

“Type B Propellant” means any halocarbon which is used as a propellant including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and hydrofluorocarbons (HFCs).

“Type C Propellant” means any propellant which is not a Type A or Type B propellant, including propane, isobutane, n-butane, and dimethyl ether (also known as dimethyl oxide).

“Undercoating” means any aerosol product designed to impart a protective, non-paint layer to the undercarriage, trunk interior, and/or firewall of motor vehicles to prevent the formation of rust or to deaden sound. This includes, but is not limited to, rubberized, mastic, or asphaltic products.

“Usage Directions” means the text or graphics on the product's principal display panel, label, or accompanying literature which describes to the end user how and in what quantity the product is to be used.

“VOM Content” means, for purposes of Subpart B of this Part, except for charcoal lighter products, the total weight of VOM in a product expressed as a percentage of the product weight (exclusive of the container or packaging), as determined pursuant to Section 223.285(a) and (b).

For charcoal lighter material products only,

$$VOC\ Content = \frac{(Certified\ Emissions\ x\ 100)}{Certified\ Use\ Rate}$$

Certified Emissions = The emissions level for products approved by the Agency under Section 223.220, as determined pursuant to South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (February 27, 1991), expressed to the nearest 0.001 pound CH₂ per start.

Certified Use Rate = The usage level for products approved by the Agency under Section 223.220, as determined pursuant to South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (February 27, 1991), expressed to the nearest 0.001 pound certified product used per start.

For purposes of Subpart C of this Part, “VOM Content” means the weight of VOM per volume of coating, calculated according to the procedures specified in subsection 223.340(a).

“Wasp and Hornet Insecticide” means any insecticide product that is designed for use against wasps, hornets, yellow jackets or bees by allowing the user to spray from a distance a directed stream or burst at the intended insects, or their hiding place.

“Waterproofer” means a product designed and labeled exclusively to repel water from fabric or leather substrates, excluding “Fabric Protectants”.

“Wax” means a material or synthetic thermoplastic substance generally of high molecular weight hydrocarbons or high molecular weight esters of fatty acids or alcohols, except glycerol and high polymers (plastics). This includes, but is not limited to, substances derived from the secretions of plants and animals such as caruba wax and beeswax, substances of a mineral origin such as ozocerite and paraffin, and synthetic polymers such as polyethylene.

“Web Spray Adhesive” means any aerosol adhesive which is not a mist spray or special purpose spray adhesive.

“Wood Cleaner” means a product labeled to clean wooden materials including but not limited to decking, fences, flooring, logs, cabinetry, and furniture. The term does not include “Dusting Aid,” “General Purpose Cleaner,” “Furniture Maintenance Product,” “Floor Wax Stripper,” “Floor Polish or Wax,” or products designed and labeled exclusively to preserve or color wood.

“Wood Floor Wax” means wax-based products for use solely on wood floors.

Section 223.205 Standards

- a) Except as provided in Section 223.207, Section 223.230, Section 223.240, or Section 223.245, no person shall sell, supply, offer for sale, or manufacture for sale in Illinois any consumer product manufactured on or after January 1, 2009, which contains VOMs in excess of the limits specified below:

Affected Product	% VOM by Weight
1) Adhesives - Aerosol	
A) Mist Spray	65
B) Web Spray	55
C) Special Purpose Spray Adhesives	
i) Mounting, Automotive Engine Compartment, and Flexible Vinyl	70
ii) Polystyrene Foam and Automotive Headliner	65
iii) Polyolefin and Laminate Repair / Edgebanding	60

2)	Adhesive Removers	
	A) Floor or Wall Covering	5
	B) Gasket or Thread Locking	50
	C) General Purpose	20
	D) Specialty	70
3)	Adhesives - Construction, Panel, and Floor Contact	15
4)	Adhesives - General Purpose	10
5)	Adhesives – Structural Waterproof	15
6)	Adhesives	
	A) Contact General Purpose	55
	B) Contact Special Purpose	80
7)	Air Fresheners	
	A) Single-Phase Aerosol	30
	B) Double Phase Aerosol	25
	C) Liquids / Pump Sprays	18
	D) Solids / Semisolids	3
8)	Antiperspirants	
	A) Aerosol	40 HVOM 10 MVOM
	B) Non-Aerosol	0 HVOM 0 MVOM
9)	Anti-Static Non-Aerosol	11
10)	Automotive Brake Cleaners	45
11)	Automotive Rubbing or Polishing Compound	17

12)	Automotive Wax, Polish, Sealant, or Glaze	
	A) Hard Paste Waxes	45
	B) Instant Detailers	3
	C) All Other Forms	15
13)	Automotive Windshield Washer Fluids	35
14)	Bathroom and Tile Cleaners	
	A) Aerosol	7
	B) All Other Forms	5
15)	Bug and Tar Remover	40
16)	Carburetor or Fuel-Injection Air Intake Cleaners	45
17)	Carpet and Upholstery Cleaners	
	A) Aerosol	7
	B) Non-Aerosol (Dilutables)	0.1
	C) Non-Aerosol (Ready-to-Use)	3.0
18)	Charcoal Lighter Material	see Section 223.220
19)	Cooking Spray – Aerosol	18
20)	Deodorants	
	A) Aerosol	0 HVOM 10 MVOM
	B) Non-Aerosol	0 HVOM 0 MVOM
21)	Dusting Aides	
	A) Aerosol	25
	B) All Other Forms	7

22)	Electrical Cleaner	45
23)	Electronic Cleaner	75
24)	Engine Degreasers	
	A) Aerosol	35
	B) Non-Aerosol	5
25)	Fabric Protectants	60
26)	Fabric Refresher	
	A) Aerosol	15
	B) Non-aerosol	6
27)	Floor Polishes / Waxes	
	A) Products for Flexible Flooring Materials	7
	B) Products for Nonresilient Flooring	10
	C) Wood Floor Wax	90
28)	Floor Wax Strippers	see Section 223.209
29)	Footwear or Leather Care Products	
	A) Aerosol	75
	B) Solid	55
	C) Other forms	15
30)	Furniture Maintenance Products	
	A) Aerosol	17
	B) All Other Forms Except Solid or Paste	7
31)	General Purpose Cleaners	
	A) Aerosol	10

	B) Non-Aerosol	4
32)	General Purpose Degreasers	
	A) Aerosol	50
	B) Non-Aerosol	4
33)	Glass Cleaners	
	A) Aerosol	12
	B) Non-Aerosol	4
34)	Graffiti Remover	
	A) Aerosol	50
	B) Non-Aerosol	30
35)	Hair Mousses	6
36)	Hairshines	55
37)	Hairsprays	55
38)	Hair Styling Gels	6
39)	Hair Styling Products	
	A) Aerosol and Pump Sprays	6
	B) All other forms	2
40)	Heavy Duty Hand Cleaner or Soap	8
41)	Insecticides	
	A) Crawling Bug (Aerosol)	15
	B) Crawling Bug (All Other Forms)	20
	C) Flea and Tick	25

D)	Flying Bug (Aerosol)	25
E)	Flying Bug (All Other Forms)	35
F)	Foggers	45
G)	Lawn and Garden (Aerosol)	20
H)	Lawn and Garden (All Other Forms)	3
I)	Wasp and Hornet	40
42)	Laundry Prewash	
A)	Aerosols / Solids	22
B)	All Other Forms	5
43)	Laundry Starch Products	5
44)	Metal Polishes / Cleansers	30
45)	Multi-Purpose Lubricant (Excluding Solid or Semi-Solid Products)	50
46)	Nail Polish Removers	75
47)	Non-Selective Terrestrial Herbicide - Non-Aerosol	3
48)	Oven Cleaners	
A)	Aerosols / Pump Sprays	8
B)	Liquids	5
49)	Paint Remover or Strippers	50
50)	Penetrants	50
51)	Rubber and Vinyl Protectants	
A)	Aerosol	10
B)	Non-Aerosol	3
52)	Sealants and Caulking Compounds	4

53)	Shaving Creams	5
54)	Shaving Gel	7
55)	Silicone-Based Multi-Purpose Lubricants (Excluding Solid or Semi-Solid Products)	60
56)	Spot Removers	
	A) Aerosol	25
	B) Non-Aerosol	8
57)	Tire Sealants and Inflators	20
58)	Toilet/Urinal Care	
	A) Aerosol	10
	B) Non-Aerosol	3
59)	Undercoatings – Aerosols	40
60)	Wood Cleaner	
	A) Aerosol	17
	B) Non-Aerosol	4

- b) No person shall sell, supply, offer for sale, or manufacture for sale in Illinois, on or after January 1, 2009, any antiperspirant or deodorant that contains any compound listed below:

Benzene
 Ethylene Dibromide
 Ethylene Dichloride
 Hexavalent Chromium
 Asbestos
 Cadmium (metallic cadmium and cadmium compounds)
 Carbon Tetrachloride
 Trichloroethylene
 Chloroform
 Vinyl Chloride
 Inorganic Arsenic

Nickel (metallic nickel and inorganic nickel compounds)
Perchloroethylene
Formaldehyde
1,3-Butadiene
Inorganic Lead
Dibenzo-p-dioxins and dibenzofurans chlorinated in the 2,3,7 and 8 positions and containing 4,5,6 or 7 chlorine atoms

Section 223.206 Diluted Products

- a) For consumer products for which the label, packaging, or accompanying literature specifically states that the product should be diluted with water or non-VOM solvent prior to use, the limits specified in Section 223.205(a) must apply to the product only after the minimum recommended dilution has taken place.
- b) For purposes of subsection (a) of this Section, the minimum recommended dilution shall not include recommendations for incidental use of a concentrated product to deal with limited special applications such as hard-to-remove soils or stains.
- c) For consumer products for which the label, packaging, or accompanying literature states that the product should be diluted with any VOM solvent prior to use, the limits specified in Section 223.205(a) shall apply to the product only after the maximum recommended dilution has taken place.

Section 223.207 Products registered under FIFRA

For those consumer products that are registered under the Federal Insecticide, Fungicide, and Rodenticide Act, (FIFRA, 7 U.S.C. Section 136-136y), the effective date of the VOM standards will be January 1, 2010.

Section 223.208 Requirements for Aerosol Adhesives

- a) As specified in California Code section 41712(h)(2), the standards for aerosol adhesives apply to all uses of aerosol adhesives, including consumer, industrial, and commercial uses. Except as otherwise provided in Sections 223.207, 223.230, 223.240, 223.245, and 223.207, no person shall sell, supply, offer for sale, use or manufacture for sale in Illinois any aerosol adhesive which, at the time of sale, use, or manufacture, contains VOMs in excess of the specified standard.
- b) “Special Purpose Spray Adhesive.”
 - 1) In order to qualify as a “Special Purpose Spray Adhesive” the product must meet one or more of the definitions for “Special Purpose Spray Adhesive” specified in Section 223.203, but if the product label

indicates that the product is suitable for use on any substrate or application not listed in one of the definitions for "Special Purpose Spray Adhesive," then the product shall be classified as either a "Web Spray Adhesive" or a "Mist Spray Adhesive."

- 2) If a product meets more than one of the definitions specified in Section 223.203 for "Special Purpose Spray Adhesive" and is not classified as a "Web Spray Adhesive" or "Mist Spray Adhesive" under Section 223.203, then the VOC limit for the product shall be the lowest applicable VOM limit specified in Section 223.205(a).
- c) Effective January 1, 2009, no person shall sell, supply, offer for sale, or manufacture for use in Illinois any aerosol adhesive which contains any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene.
- d) All aerosol adhesives must comply with the labeling requirements specified in Section 223.265.

Section 223.209 Requirements for Floor Wax Strippers

On or after January 1, 2009, no person shall sell, supply, offer for sale, or manufacture for use in Illinois any floor wax stripper unless the following requirements are met:

- a) The label of each non-aerosol floor wax stripper must specify a dilution ratio for light or medium build-up of polish that results in an as-used VOM concentration of three percent by weight or less;
- b) If a non-aerosol floor wax stripper is also intended to be used for removal of heavy build-up of polish, the label of that floor wax stripper must specify a dilution ratio for heavy build-up of polish that results in an as-used VOM concentration of 12% by weight or less; and
- c) The terms "light build-up," "medium build-up," or "heavy build-up" are not specifically required, as long as comparable terminology is used.

Section 223.210 Products Containing Ozone-Depleting Compounds

- a) For any consumer product for which standards are specified under Section 223.205(a), no person shall sell, supply, offer for sale, or manufacture for sale in Illinois any consumer product which contains any of the following ozone-depleting compounds:
 - 1) Trichlorofluoromethane (CFC-11);
 - 2) Dichlorodifluoromethane (CFC-12);

- 3) 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113);
 - 4) 1-chloro-1,1-difluoro-2-chloro-2,2-difluoroethane (CFC-114);
 - 5) Chloropentafluoroethane (CFC-115);
 - 6) Bromochlorodifluoromethane (Halon 1211);
 - 7) Bromotrifluoromethane (Halon 1301);
 - 8) Dibromotetrafluoroethane (Halon 2402);
 - 9) Chlorodifluoromethane (HCFC-22);
 - 10) 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123);
 - 11) 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);
 - 12) 1,1-dichloro-1-fluoroethane (HCFC-141b);
 - 13) 1-chloro-1,1-difluoroethane (HCFC-142b);
 - 14) 1,1,1-trichloroethane; and
 - 15) Carbon tetrachloride.
- b) The requirements in subsection (a) of this Section, shall not apply to any product formulation existing as of January 1, 2009, that complies with Section 223.205(a) or is reformulated to meet Section 223.205(a), provided the ozone-depleting compound content of the reformulated product does not increase.
- c) The requirements in subsection (a) of this Section shall not apply to any ozone depleting compounds that may be present as impurities in a consumer product in an amount equal to or less than 0.01% by weight of the product.

Section 223.220 Requirements for Charcoal Lighter Material

- a) No person shall sell, supply, or offer for sale on or after January 1, 2009, any charcoal lighter material product unless at the time of the transaction the manufacturer can demonstrate that they have been issued an effective certification by the CARB under the Consumer Products provisions under Subchapter 8.5, Article 2, Section 94509(h), of Title 17 of the California Code of Regulations. This certification remains in effect for Illinois for as long as the CARB certification remains in effect.

- b) Alternatively, the person may demonstrate that at the time of the transaction the manufacturer had been issued a certification by an air pollution agency of another state and the USEPA that was current at the time of the transaction.
- c) Upon request by the Agency, a manufacturer claiming to have a certification as specified in subsection (a) of this Section, must submit to the Agency a copy of the certification decision, including all conditions applicable to the certification established by CARB or the air pollution agency of another state and the USEPA.

Section 223.230 Exemptions

- a) This regulation shall not apply to any consumer product manufactured in Illinois for shipment and use outside of Illinois, as long as the manufacturer or distributor can demonstrate both that the consumer product is intended for shipment and use outside of Illinois, and that the manufacturer or distributor has taken reasonable, prudent precautions to assure that the consumer product is not distributed to Illinois. This exemption shall not apply to consumer products that are sold, supplied, or offered for sale by any person to retail outlets in Illinois.
- b) For antiperspirants or deodorants, ethanol shall not be considered a medium volatility organic material (MVOM) for purposes of the content standards specified in Section 223.205(a).
- c) The VOM limits specified in Section 223.205(a) shall not apply to fragrances up to a combined level of two percent by weight contained in any consumer product and shall not apply to colorants up to a combined level of two percent by weight contained in any antiperspirant or deodorant.
- d) The requirements of Section 223.205(a) for antiperspirants or deodorants shall not apply to those volatile organic materials that contain more than 10 carbon atoms per molecule and for which the vapor pressure is unknown, or that have a vapor pressure of two mm Hg or less at 20°C.
- e) The VOM limits specified in Section 223.205(a) shall not apply to any LVP-VOM.
- f) The requirements of Section 223.250 shall not apply to consumer products registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 U.S.C. Section 136/136y).
- g) The VOM limits specified in Section 223.205(a) shall not apply to air fresheners that are comprised entirely of fragrance, less compounds not defined as VOMs under Section 211.7150 or exempted under subsection 223.230(f).
- h) The VOM limits specified in Section 223.205(a) shall not apply to insecticides containing at least 98% para-dichlorobenzene;

- i) The VOM limits specified in Section 223.205(a) shall not apply to adhesives sold in containers of one fluid ounce or less.
- j) The VOM limits specified in Section 223.205(a) shall not apply to bait station insecticides. For the purpose of this section, bait station insecticides are containers enclosing an insecticidal bait that is not more than 0.5 ounce by weight, where the bait is designed to be ingested by insects and is composed of solid material feeding stimulants with less than five percent active ingredients.

Section 223.240 Innovative Product Exemption

- a) Any manufacturer of consumer products which have been granted an Innovative Product exemption by the CARB under the Innovative Products provisions in Subchapter 8.5, Article 2, Section 94511, or Subchapter 8.5, Article 1, Section 94503.5 of Title 17 of the California Code of Regulations shall be exempt from the limits in 223.205(a) for the period of time that the CARB Innovative Products exemption remains in effect, provided that all consumer products within the CARB Innovative Products exemption are contained in the limits in 223.205(a) of this regulation. Any manufacturer claiming such an exemption on this basis must submit to the Agency a copy of the CARB Innovative Product exemption decision (i.e., the Executive Order), including all conditions established by CARB applicable to the exemption.
- b) Recordkeeping and Availability of Requested Information.
 - 1) All information specified in the innovative product exemption approving an innovative product application shall be maintained by the responsible party for a minimum of three years after the expiration of such exemption. Such records shall be clearly legible and maintained in good condition during this period.
 - 2) The records specified in (1) of this subsection shall be made available to the Agency, or its authorized representative, upon request.

Section 223.245 Alternative Compliance Plans

- a) The purpose of this section is to provide an alternative method to comply with the limits in Section 223.205(a). This alternative is provided by allowing responsible ACP parties the option of voluntarily entering into separate ACPs for consumer products, as specified in this Subpart. Only responsible ACP parties for consumer products may enter into an ACP.
- b) Any manufacturer of consumer products which have been granted an ACP Agreement by the CARB under the provisions in Subchapter 8.5, Article 4, Sections 94540-94555, of Title 17 of the California Code of Regulations shall be

exempt from the limits in Section 223.205(a) for the period of time that the CARB ACP Agreement remains in effect provided that all ACP Products used for emissions credits within the CARB ACP Agreement are contained in Section 223.205(a) of this regulation. Any manufacturer claiming such an ACP Agreement on this basis must submit to the Agency a copy of the CARB ACP decision (i.e., the Executive Order), including all conditions established by CARB applicable to the exemption.

- c) Recordkeeping and Availability of Requested Information.
 - 1) All information specified in the ACP Agreement approving an ACP shall be maintained by the responsible ACP party for a minimum of three years after the expiration of such ACP. Such records shall be clearly legible and maintained in good condition during this period.
 - 2) The records specified in (1) of this subsection shall be made available to the Agency or its authorized representative upon request.

Section 223.250 Product Dating

- a) Each manufacturer of a consumer product subject to Section 223.205(a) shall clearly display on each consumer product container or package, the day, month, and year on which the product was manufactured, or a code indicating such date.
- b) A manufacturer who uses the following code to indicate the date of manufacture shall not be subject to the requirements of Section 223.255(a), if the code is represented separately from other codes on the product container so that it is easily recognizable:

YY DDD = year year day day day

Where:

YY = Two digits representing the year in which the product was manufactured,

DDD = Three digits representing the day of the year on which the product was manufactured, with “001” representing the first day of the year, “002” representing the second day of the year, and so forth (i.e., the “Julian date”)

- c) This date or code shall be displayed on each consumer product container or package no later than twelve months prior to the effective date of the applicable standard specified in Section 223.205(a).
- d) The date or datecode information shall be located on the container or inside the cover/cap so that it is readily observable or obtainable by simply removing the

cap/cover without irreversibly disassembling any part of the container or packaging. For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.

- e) The requirements of this Section 223.250 shall not apply to products containing no VOMs (as defined in Section 223.203), or containing VOMs at 0.10% by weight or less.

Section 223.255 Additional Product Dating Requirements

- a) If a manufacturer uses a code other than specified in 223.250(b) indicating the date of manufacture for any consumer product subject to Section 223.205(a), an explanation of the date portion of the code must be filed with the Agency no later than 12 months prior to the effective date of the applicable standard specified in Section 223.205.
- b) If a manufacturer changes any code indicating the date of manufacture for any consumer product subject to Section 223.255(a), an explanation of the modified code must be submitted to the Agency before any products displaying the modified code are sold, supplied, or offered for sale in Illinois.
- c) No person shall erase, alter, deface, or otherwise remove or make illegible any date or code indicating the date of manufacture from any regulated product container without the express authorization of the manufacturer. No manufacturer shall affix a date-code that is not true for the date the item was manufactured.
- d) Date code explanations for codes indicating the date of manufacture are public information and may not be claimed as confidential.

Section 223.260 Most Restrictive Limit

- a) Products manufactured before January 1, 2009, and FIFRA-registered Insecticides manufactured before January 1, 2010.

Notwithstanding the definition of “product category” in Section 223.203, if anywhere on the principal display panel of any consumer product manufactured before January 1, 2009, or any FIFRA-registered insecticide manufactured before January 1, 2010, any representation is made that the product may be used as, or is suitable for use as, a consumer product for which a lower VOC limit is specified in Section 223.205(a), then the lowest VOC limit shall apply. This requirement does not apply to general purpose cleaners, antiperspirant/deodorant products and insecticide foggers.

- b) Products manufactured on or after January 1, 2009, and FIFRA-registered Insecticides manufactured on or after January 1, 2010.

Notwithstanding the definition of “Product Category” in Section 223.203, if anywhere on the container or packaging of any consumer product manufactured on or after January 1, 2009, or any FIFRA-registered insecticide manufactured on or after January 1, 2010, or on any sticker or label affixed thereto, any representation is made that the product may be used as, or is suitable for use as, a consumer product for which a lower VOC limit is specified in Section 223.205(a), then the lowest VOM limit shall apply. This requirement does not apply to general purpose cleaners, antiperspirant/deodorant products and insecticide foggers.

Section 223.265 Additional Labeling Requirements for Aerosol Adhesives, Adhesive Removers, Electronic Cleaners, Electrical Cleaners, Energized Electrical Cleaners, and Contact Adhesives

- a) In addition to the requirements specified in Sections 223.250, 223.260, and 223.270, both the manufacturer and responsible party for each aerosol adhesive, adhesive remover, electronic cleaner, electrical cleaner, energized electrical cleaner, and contact adhesive product subject to this regulation shall ensure that all products clearly display the following information on each product container which is manufactured on or after January 1, 2009.
 - 1) The product category as specified in Section 223.205(a) or an abbreviation of the category shall be displayed.
 - 2) The applicable VOM standard for the product that is specified in Section 223.205(a) except for Energized Electrical Cleaner, expressed as a percentage by weight, shall be displayed unless the product is included in an alternative control plan approved by the Agency, as provided in Sections 223.240, and 223.245, and the product exceeds the applicable VOM standard;
 - 3) If the product is included in an alternative control plan approved by the Agency, and the product exceeds the applicable VOM standard specified in Section 223.205(a), the product shall be labeled with the term “ACP” or “ACP product”;
 - 4) If the product is classified as a special purpose spray adhesive, the applicable substrate and/or application or an abbreviation of the substrate and/or application that qualifies the product as special purpose shall be displayed.
 - 5) If the manufacturer or responsible party uses an abbreviation as allowed by this Section 223.265, an explanation of the abbreviation must be filed with the Agency before the abbreviation is used.

- b) The information required in Section 223.250(a), shall be displayed on the product container such that it is readily observable without removing or disassembling any portion of the product container or packaging. For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.
- c) No person shall remove, alter, conceal, or deface the information required in Subsection 223.265(a) prior to final sale of the product.

Section 223.270 Reporting Requirements

- a) Upon request, a responsible party must submit to the Agency any of the following information within 30 days of a request by the Agency:
 - 1) The name, address, and telephone number of the responsible party and the name and telephone number of the party's designated contact person;
 - 2) For each product subject to Section 223.205(a):
 - A) The product brand name;
 - B) The product label;
 - C) The product category to which the consumer product belongs;
 - D) The applicable product form(s) listed separately; and
 - E) An identification of the product as a household product, institutional product, or both;
 - 3) Separate Illinois sales in pounds per year, to the nearest pound, and the method used to calculate Illinois sales for each product form;
 - 4) For information submitted by multiple companies, an identification of each company which is submitting relevant data separate from that submitted by the responsible party. All information from each company shall be submitted by the date requested by the Agency;
 - 5) For each product brand name and form, the net percent by weight of the total product, less container and packaging, comprised of the following, rounded to the nearest one-tenth of a percent (0.1%):
 - A) Total Section 223.205(a) compounds;
 - B) Total LVP-VOMs that are not fragrances;

- C) Total all other carbon-containing compounds that are not fragrances;
 - D) Total all non-carbon-containing compounds;
 - E) Total fragrance;
 - F) For products containing greater than two percent by weight fragrance:
 - i) The percent of fragrance that are LVP-VOMs; and
 - ii) The percent of fragrance that are all other carbon-containing compounds; and
 - G) Total paradichlorobenzene;
- 6) For each product brand name and form, the identity, including the specific chemical name and associated Chemical Abstract Services (CAS) number, of the following:
- A) Each Section 223.205(a) compound; and
 - B) Each LVP-VOM that is not a fragrance; and
- 7) If the product includes a propellant, the following:
- A) The weight percent comprised of propellant for each product; and
 - B) An identification of the type of propellant, such as Type A, Type B, Type C, or a blend of the different types.
- b) In addition to the requirements of subsection (a)(6) of this Section the responsible party shall report or shall arrange to have reported to the Agency, the net percent by weight of each ozone-depleting compound which is:
- 1) Listed in Section 223.210(a); and
 - 2) Contained in a product subject to reporting under subsection (a) of this Section in any amount greater than 0.1% by weight.
- c) In addition, all manufacturers must submit to the Agency the information requested in subsections (a) and (b) above upon commencement of the selling of each such product in Illinois.

Section 223.275 Special Recordkeeping Requirements for Consumer Products that Contain Perchloroethylene or Methylene Chloride

- a) The requirements of this Section shall apply to all responsible parties for consumer products that are subject to Section 223.205(a) and contain perchloroethylene or methylene chloride and Energized Electrical Cleaners as defined in Section 223.203, that contain perchloroethylene or methylene chloride. For the purposes of this Section, a product “contains perchloroethylene or methylene chloride” if the product contains 1.0 percent or more by weight (exclusive of the container or packaging) of either perchloroethylene or methylene chloride.
- b) For each consumer product that contains perchloroethylene or methylene chloride, the responsible party shall report the following information for products sold in Illinois, upon request of the Agency, within 30 days written notice:
 - 1) The product brand name and a copy of the product label with legible usage instructions;
 - 2) The product category to which the consumer product belongs;
 - 3) The applicable product form(s) (listed separately);
 - 4) For each product form listed in (3), the total sales in Illinois during the calendar year to the nearest pound (exclusive of the container or packaging), and the method used for calculating the Illinois sales; and
 - 5) The weight percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the consumer product.

Section 223.280 Calculating Illinois Sales

If direct sales data for Illinois are not available, sales may be estimated by prorating national or regional sales data by population.

Section 223.285 Test Methods

- a) Testing to determine compliance with the requirements of this Subpart shall be performed using CARB Method 310, Determination of Volatile Organic Materials (VOM) in Consumer Products, adopted September 25, 1997, and as last amended on May 5, 2005, which is incorporated by reference in Section 223.120.
- b) Compliance with the requirements of this Subpart may also be demonstrated through calculation of the VOM content from records of the amounts of constituents used to make the product pursuant to the following criteria:

- 1) Accurate manufacturing records shall be kept for each day of production of the amount and chemical composition of the individual product constituents;
- 2) Records required by (1), above, shall be kept for at least three years;
- 3) For (4), below, the following shall apply:
 - A) "A" means the total net weight of unit excluding container and packaging;
 - B) "B" means the total weight of all VOMs per unit; and
 - C) "C" means the total weight of all exempted VOMs per unit;
- 4) For the purposes of this section, the VOM content shall be calculated by subtracting the total weight of VOMs exempted under Section 223.230 per unit from the total weight of all VOMs per unit, divided by the total net weight of unit excluding container and packaging and the product, multiplied by 100 as in the formula below:

$$\text{VOM Content} = \frac{\text{B} - \text{C}}{\text{A}} \times 100$$

- 5) If product records appear to demonstrate compliance with the VOM limits, but these records are contradicted by product testing performed using CARB Method 310, the results of CARB Method 310 shall take precedence over the product records and may be used to establish a violation of the requirements of this chapter.
- c) Testing to determine whether a product is a liquid or solid shall be performed using ASTM D4359-90 (2000)e1, which is incorporated by reference in Section 223.120 or an equivalent method approved by the CARB.
 - d) Testing to determine compliance with the certification requirements for charcoal lighter material shall be performed using the procedures specified in the SCAQMD Test Protocol Rule 1174 Ignition Method Compliance Certification Protocol dated February 28, 1991, which is incorporated by reference in Section 223.120.
 - e) Testing to determine distillation points of petroleum distillate-based charcoal lighter materials shall be performed using ASTM D86-04b, 2004 edition, which is incorporated by reference in Section 223.120 or an equivalent method approved by the CARB.

- f) No person shall create, alter, falsify, or otherwise modify records in such a way that the records do not accurately reflect the constituents used to manufacture a product, the chemical composition of the individual product, and any other test, processes, or records used in connection with product manufacture.

SUBPART C: ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS

Section 223.300 Purpose

The purpose of this Subpart is to limit emissions of VOMs by requiring reductions in the VOM content of architectural and industrial maintenance coatings and required work practices to minimize VOM emissions in the application of architectural and industrial maintenance coatings to surfaces.

Section 223.305 Applicability

This Subpart is applicable to any person who supplies, sells, offers for sale, or manufacturers any architectural coating for use within the state of Illinois, as well as any person who applies or solicits the application of any architectural coating within Illinois. This Subpart does not apply to:

- a) Any architectural coating that is sold or manufactured for use outside of the state of Illinois or for shipment to other manufacturers for reformulation or repackaging.
- b) Any aerosol coating product.
- c) Any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less.

Section 223.307 Definitions for Subpart C

The definitions contained in this Section apply only to the provisions of this Subpart. Unless otherwise defined herein, the definitions of terms used in this Subpart shall have the meanings specified for those terms in 35 Ill. Adm. Code Part 211.

“Adhesive” means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

“Aerosol Coating Product” means a pressurized coating product containing pigments or resins that dispenses product ingredients 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.

“Antenna Coating” means a coating labeled and formulated exclusively for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals.

“Antifouling Coating” means a coating labeled and formulated for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms. To qualify as an “Antifouling Coating,” the coating must be registered with the USEPA under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. Section 136 et. seq.)

“Appurtenance” means any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but no limited to, bathroom and kitchen fixtures, cabinets, concrete forms, doors, elevators, fences, hand railings, heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools, lampposts, partitions pipes and piping systems, rain gutters and downspouts, stairways, fixed ladders, catwalks and fire escapes, and window screens.

“Architectural Coating” means a coating to be applied to stationary structures or the appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered architectural coatings for the purposes of this rule.

“Bitumens” means black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.

“Bituminous Roof Coating” means a coating which incorporates “Bitumens” that is labeled and formulated exclusively for roofing.

“Bituminous Roof Primer” means a primer which incorporates “Bitumens” that is labeled and formulated exclusively for roofing.

“Bond Breaker” means a coating labeled and formulated for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.

“Calcamine Recoaters” means a flat solvent borns coatings formulated and recommended specifically for recoating calcamine-painted ceilings and other calcamine-painted substrates.

“Clear Brushing Lacquers” means clear wood finishes, excluding clear lacquer sanding sealers, formulated with nitrocellulose or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film, which are intended exclusively for application by brush and which are labeled as specified in subsection

223.320(e).

“Clear Wood Coatings” means clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film.

“Coating” means for purposes of this Part, a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.

“Colorant” means a concentrated pigment dispersion in water, solvent, and/or binder that is added to an architectural coating after packaging in sale units to produce the desired color.

“Concrete Curing Compound” means for purposes of this Part, a coating labeled and formulated for application to freshly poured concrete to retard the evaporation of water.

“Conversion Varnish” means a clear acid-curing coating with an alkyd or other resin blended with amino resins and supplied as a single component or two-component product. Conversion varnishes produce a hard, durable, clear finish designed for professional application to wood flooring. Film formation is the result of an acid-catalyzed condensation reaction, affecting a transesterification at the reactive ethers of the amino resins.

“Dry Fog Coating” means a coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

“Exempt Compound” means a compound identified as exempt under the definition of Volatile Organic Material (VOM) in Part 211.7150. The exempt compound content of a coating shall be determined by USEPA Method 24 or South Coast Air Quality Management District (SCAQMD) Method 303-91 (Revised February 1993), incorporated by reference on Section 223.120.

“Faux Finishing Coating” means a coating labeled and formulated as a stain or a glaze to create artistic effects including, but not limited to, dirt, old age, smoke damage, and simulated marble and wood grain.

“Fire-Resistive Coating” means an opaque coating labeled and formulated to protect the structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials, that has been fire tested and rated by a testing agency and approved by building code officials for use in bringing assemblies of structural materials into compliance with federal, state, and local building code requirements. The fire-resistive coating and the testing agency must be approved by building code officials. The fire-resistive coating shall be tested in accordance with ASTM Designation E 119-98, incorporated by reference in Section 223.120.

“Fire-Retardant Coating” means a coating labeled and formulated to retard ignition and flame spread, that has been fire tested and rated by a testing agency approved by building code officials for use in bringing building and construction materials into compliance with federal, state, and local building code requirements. The fire-retardant coating and the testing agency must be approved by building code officials. The fire-retardant coating shall be tested in accordance with ASTM Designation E 84-99, incorporate by reference in Section 223.120.

“Flat Coating” means a coating that is not defined under any other definition in this rule and that registers gloss less than 15 on an 85-degree meter or less than five on a 60-degree meter according to ASTM Designation D 523-89 (1999), incorporated by reference in Section 223.120.

“Floor Coating” means an opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, and other horizontal surfaces, which may be subjected to foot traffic.

“Flow Coating” means a coating labeled and formulated exclusively for use by electric power companies or their subcontractors to maintain the protective coating systems present on utility transformer units.

“Form-Release Compound” means a coating labeled and formulated for application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.

“Graphic Arts Coating or Sign Paint” means a coating labeled and formulated for hand-application by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals including letter enamels, poster colors, copy blockers, and bulletin enamels.

“High-Temperature Coating” means a high performance coating, excluding engine paint, labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

“Impacted Immersion Coating” means a high performance maintenance coating formulated and recommended for application to steel structures subject to immersion in turbulent, debris-laden water. These coatings are specifically resistant to high-energy impact damage by floating ice or debris.

“Industrial Maintenance Coating” means a high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats, formulated for application to substrates exposed to one or more of the following extreme environmental conditions listed below, and labeled as specified in subsection 223.320(d):

Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposures of interior surfaces to moisture condensation;

Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;

Repeated exposure to temperatures above 121°C (250°F);

Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or

Exterior exposure of metal structures and structural components.

“Lacquer” means a clear or opaque wood coating, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film.

“Low-Solids Coating” means a coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material.

“Magnesite Cement Coating” means a coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

“Mastic Texture Coating” means a coating labeled and formulated to cover holes and minor cracks and to conceal surface irregularities, and is applied in a single coat of at least 10 mils (0.010 inch) dry film thickness.

“Metallic Pigmented Coating” means a coating containing at least 48 grams of elemental metallic pigment per liter of coating as applied (0.4 pounds per gallon), when tested in accordance with SCAQMD Method 318-95, incorporated by reference in Section 223.120.

“Multi-Color Coating” means a coating that is packaged in a single container and that exhibits more than one color when applied in a single coat.

“Non-flat Coating” means a coating that is not defined under any other definition in this rule and that registers a gloss of 15 or greater on an 85-degree meter and five or greater on a 60 degree meter according to ASTM Designation D 523-89 (1999), incorporated by reference in Section 223.120 or an equivalent method approved by the California Air Resources Board.

“Non-flat - High Gloss Coating” means a non-flat coating that registers a gloss of 70 or above on a 60-degree meter according to ASTM Designation D 523-89 (1999), incorporated by reference into Section 223.120 or an equivalent method approved by the

CARB.

“Nonindustrial Use” means any use of architectural coatings except in the construction or maintenance of any of the following: facilities used in the manufacturing of goods and commodities, transportation infrastructure, including highways, bridges, airports and railroads, facilities used in mining activities, including petroleum extraction, utilities infrastructure, including power generation and distribution, and water treatment and distribution systems.

“Nuclear Coating” means a protective coating formulated and recommended to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusions by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure [ASTM Method D 4082-89], relatively easy to decontaminate, and resistant to various chemicals to which the coatings are likely to be exposed [ASTM Method D 3912-80].

“Post-Consumer Coating” means a finished coating that would have been disposed of in a landfill, having completed its usefulness to a consumer, and does not include manufacturing wastes.

“Pre-Treatment Wash Primer” means a primer that contains a minimum of 0.5 acid, by weight, when tested in accordance with ASTM Designation D 1613-03, incorporated by reference into Section 223.120 or an equivalent method approved by the CARB, that is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

“Primer” means for purposes of this Part, a coating labeled and formulated for application to a substrate to provide a firm bind between the substrate and subsequent coats.

“Quick-Dry Enamel” means a non-flat coating that is labeled as specified in subsection 223.320(h) and that is formulated to have the following characteristics:

Is capable of being applied directly from the container under normal conditions with ambient temperatures between 16 and 27°C (60 and 80°F); and

When tested in accordance with ASTM Designation D 1640-03, incorporated by reference in Section 223.120, or an equivalent method approved by the CARB, sets to touch in two hours or less, is tack free in four hours or less, and dries hard in eight hours or less by the mechanical test method; and

Has a dried film gloss of 70 or above on a 60-degree meter.

“Quick-Dry Primer Sealer and Undercoater” means a “Primer,” “Sealer,” or “Undercoater” that is dry to the touch in 30 minutes and can be re-coated in two hours when tested in accordance with ASTM Designation D 1640-03, incorporated by reference in Section 223.120 or an equivalent method approved by the CARB.

“Recycled Coating” means an architectural coating formulated such that not less than 50 percent of the total weight consists of secondary and post-consumer coating, with not less than 10 percent of the total weight consisting of post-consumer coating.

“Residence” means areas where people reside or lodge, including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels.

“Roof Coating” means a non-bituminous coating labeled and formulated exclusively for application to roofs for the primary purpose of preventing penetration of the substrate by water or reflecting heat and ultraviolet radiation. Metallic pigmented roof coatings which qualify as metallic pigmented coatings, shall not be considered in this category, but shall be considered to be in the metallic pigmented coatings category.

“Rust Preventive Coating” means a coating formulated exclusively for nonindustrial use to prevent the corrosion of metal surfaces and labeled as specified in Section 223.320(f).

“Sanding Sealer” means for purposes of this Part, a clear or semi-transparent wood coating labeled and formulated for application to bare wood to seal the wood and to provide a coat that can be abraded to create a smooth surface for subsequent applications of coatings. A “Sanding Sealer” that also meets the definition of a “Lacquer” is not included in this category, but it is included in the “Lacquer” category.

“Sealer” means for purposes of this Part, a coating labeled and formulated for application to a substrate for one or more of the following purposes: to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

“Secondary Coating (Rework)” means a fragment of a finished coating or a finished coating from a manufacturing process that has converted resources into a commodity of real economic value, but does not include excess virgin resources of the manufacturing process.

“Shellac” means a clear or opaque coating formulated solely with the resinous secretions of the lac beetle (*Lacifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

“Shop Application” means the application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).

“Solicit” means to require for use or to specify by written or oral contract.

“Specialty Primer, Sealer, and Undercoater” means a coating labeled as specified in subsection 223.320(g) and that is formulated for application to a substrate to seal fire,

smoke, or water damage; to condition excessively chalky surfaces, to seal in efflorescence, or to block stains. An excessively chalky surface is one that is defined as having a chalk rating of four or less as determined by ASTM Designation D 4214-98, incorporated by reference in Section 223.120 or an equivalent method approved by the CARB.

“Stain” means a clear, semi-transparent, or opaque coating labeled and formulated to change the color of a surface, but not conceal the grain pattern or texture.

“Stone Consolidant” means a coating that is labeled and formulated for application to stone substrates to repair historical structures that have been damaged by weathering or other decay mechanisms. Stone Consolidants must penetrate into stone substrates to create bonds between particles and consolidate deteriorated material. Stone Consolidants must be specified and used in accordance with ASTM E2167-01, incorporated by reference in Section 223.120.

Stone Consolidants are for professional use only and must be labeled as such, in accordance with the labeling requirements in Section 223.320.

“Swimming Pool Coating” means a coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals.

“Swimming Pool Repair and Maintenance Coating” means a rubber-based coating labeled and formulated to be used over existing rubber-based coatings for the repair and maintenance of swimming pools.

“Temperature-Indicator Safety Coating” means a coating labeled and formulated as a color-changing indicator coating for the purpose of monitoring the temperature and safety of the substrate, underlying piping, or underlying equipment, and for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

“Thermoplastic Rubber Coating and Mastics” means a coating or mastic formulated and recommended for application to roofing or other structural surfaces and that incorporates no less than 40 percent by weight of thermoplastic rubbers in the total resin solids and may also contain other ingredients including, but not limited to, fillers, pigments and modifying resins.

“Tint Base” means an architectural coating to which colorant is added after packaging in sale units to produce a desired color.

“Traffic Marking Coating” means a coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berets, driveways, parking lots, sidewalks, and airport runways.

“Undercoater” means a coating labeled and formulated to provide a smooth surface for subsequent coatings.

“Varnish” means a clear or semi-transparent wood coating, excluding lacquers and shellacs, formulated to dry by chemical reaction on exposure to air. Varnishes may contain small amounts of pigment to color a surface, or to control the fetal sheen or gloss of the finish.

“VOC Content” shall have the same meaning as “VOM Content.”

“VOM Content” means the weight of VOM per volume of coating, calculated according to the procedures specified in subsection 223.400(a).

“Waterproofing Concrete/Masonry Sealers” means clear or pigmented sealers that are formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, or staining.

“Waterproofing Sealer” means a coating labeled and formulated for application to a porous substrate for the primary purpose of preventing the penetration of water.

“Wood Preservative” means a coating labeled and formulated to protect exposed wood from decay or insect attack that is registered with both the USEPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. section 136, et. seq.).

Section 223.310 Standards

a) VOM Content Limits: Except as provided in subsections 223.310(c), no person shall manufacture, blend, or repackage for sale within Illinois, supply, sell, or offer for sale within Illinois, or solicit for application or apply within Illinois, any architectural coating manufactured on or after January 1, 2009, which contains a VOM content in excess of the corresponding limit specified below:

		VOM Content Limit Grams/liter (Pounds/gallon)	
Coating Category			
1)	Flat Coatings	100	(0.8)
2)	Non-flat Coatings	150	(1.3)
3)	Non-flat- High Gloss Coatings	250	(2.1)
Specialty Coatings			
4)	Antenna Coatings	530	(4.4)

5)	Antifouling Coatings	400	(3.3)
6)	Bituminous Roof Coatings	300	(2.5)
7)	Bituminous Roof Primers	350	(2.9)
8)	Bond Breakers	350	(2.9)
9)	Calcamine Recoaters	475	(4.0)
10)	Clear Wood Coatings		
	A) Clear Brushing Lacquers	680	(5.7)
	B) Lacquers (including lacquer sanding sealers)	550	(4.6)
	C) Sanding Sealers (other than lacquer sanding sealers)	350	(2.9)
	D) Varnishes	350	(2.9)
11)	Concrete Curing Compounds	350	(2.9)
12)	Conversion Varnish	725	(6.0)
13)	Dry Fog Coatings	400	(3.3)
14)	Faux Finishing Coatings	350	(2.9)
15)	Fire-Resistive Coatings	350	(2.9)
16)	Fire-Retardant Coatings		
	A) Clear	650	(5.4)
	B) Opaque	350	(2.9)
17)	Floor Coatings	250	(2.1)
18)	Flow Coatings	420	(3.5)
19)	Form-Release Compounds	250	(2.1)
20)	Graphic Arts Coatings (Sign Paints)	500	(4.2)

21)	High-Temperature Coatings	420	(3.5)
22)	Impacted Immersion Coating	780	(6.5)
23)	Industrial Maintenance Coatings	340	(2.8)
24)	Low-Solids Coatings	120	(1.0)
25)	Magnesite Cement Coatings	450	(3.8)
26)	Mastic Texture Coatings	300	(2.5)
27)	Metallic Pigmented Coatings	500	(4.2)
28)	Multi-Color Coatings	250	(2.1)
29)	Nuclear Coating	550	(4.6)
30)	Pre-Treatment Wash Primers	420	(3.5)
31)	Primers, Sealers, and Undercoaters	200	(1.7)
32)	Quick-Dry Enamels	250	(2.1)
33)	Quick-Dry Primers, Sealers and Undercoaters	200	(1.7)
34)	Recycled Coatings	250	(2.1)
35)	Roof Coatings	250	(2.1)
36)	Rust Preventative Coatings	400	(3.3)
37)	Shellacs		
	A) Clear	730	(6.1)
	B) Opaque	550	(4.6)
38)	Specialty Primers, Sealers, and Undercoaters	350	(2.9)
39)	Stains	250	(2.1)
40)	Stone Consolidants	450	(3.8)
41)	Swimming Pool Coatings	340	(2.8)

42)	Swimming Pool Repair and Maintenance Coatings	340	(2.8)
43)	Temperature-Indicator Safety Coatings	550	(4.6)
44)	Thermoplastic Rubber Coatings and Mastics	550	(4.6)
45)	Traffic Marking Coatings	150	(1.3)
46)	Waterproofing Concrete/Masonry Sealers	400	(3.3)
47)	Waterproofing Sealers	250	(2.1)
48)	Wood Preservatives	350	(2.9)

(Board Note: Conversion factor: one pound VOM per gallon (U.S.) = 119.95 grams per liter.)

- b) Limits are expressed in grams of VOM per liter of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to tint bases. "Manufacturers maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.
- c) Most Restrictive VOM Limit. If anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf, 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 223.310(a), then the most restrictive VOM content limit shall apply. This provision does not apply to the coating categories specified in subsections (c)(1) through (c)(20) below:
 - 1) Lacquer coatings (including lacquer sanding sealers);
 - 2) Metallic pigmented coatings;
 - 3) Shellacs;
 - 4) Fire-retardant coatings;
 - 5) Pretreatment wash primers;
 - 6) Industrial maintenance coatings;
 - 7) Low-solids coatings;

- 8) Wood preservatives;
 - 9) High-temperature coatings;
 - 10) Temperature-indicator safety coatings;
 - 11) Antenna coatings;
 - 12) Antifouling coatings;
 - 13) Flow coatings;
 - 14) Bituminous roof primers;
 - 15) Specialty primers, sealers, and undercoaters.
 - 16) Conversion Varnish
 - 17) Calcimine Recoaters
 - 18) Impacted Immersion Coatings
 - 19) Nuclear Coatings
 - 20) Thermoplastic Rubber Coating and Mastics
- d) **Painting Practices.** All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging, or other means, shall be closed when not in use. These architectural coatings containers include, but are not limited to, drums, buckets, cans, pails, trays, or other application containers. Containers of any VOM-containing materials used for thinning and cleanup shall also be closed when not in use.
 - e) **Thinning.** No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOM limit specified in Section 223.310(a).
 - f) **Rust Preventive Coatings.** No person shall apply or solicit the application of any rust preventive coating for industrial use unless such a rust preventive coating complies with the industrial maintenance coating VOM limit specified in Section 223.310(a). If the coating is also regulated under another Part, the more restrictive limit shall apply.
 - g) **Coatings Not Listed in Section 223.310(a).** For any coating that does not meet any of the definitions for the specialty coatings categories listed in Section

223.310(a), the VOM content limit shall be determined by classifying the coating as a flat coating, a non-flat coating, or a non-flat high-gloss coating, based on its gloss, as defined in Section 223.307, and the corresponding flat or non-flat coating limit shall apply.

Section 223.320 Container Labeling Requirements

Each manufacturer of any architectural coatings subject to this Subpart shall display the information listed in subsections 223.320(a) through 223.320(j) on the coating container (or label) in which the coating is sold or distributed.

- a) **Date Code.** The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid, or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Agency.
- b) **Thinning Recommendations.** A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.
- c) **VOM Content.** Each container of any coating subject to this rule shall display either the maximum or the actual VOM content of the coating, as supplied, or the actual VOM content including the maximum thinning as recommended by the manufacturer. VOM content shall be displayed in grams of VOM per liter of coating. VOM content displayed shall be calculated using product formulation data, or shall be determined using the test methods in subsection 223.340(b). The equations in subsection 223.340(a) shall be used to calculate VOM content.
- d) **Industrial Maintenance Coatings.** In addition to the information specified in subsection (a), (b), and (c), each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or the lid of the container in which the coating is sold or distributed one or more of the descriptions listed in subsections (d)(1) through (d)(3):
 - 1) "For industrial use only;"
 - 2) "For professional use only;"
 - 3) "Not for residential use" or "Not intended for residential use."
- e) **Clear Brushing Lacquers.** The labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed."

- f) Rust Preventive Coatings. The labels of all rust preventive coatings shall prominently display the statement “For Metal Substrates Only.”
- g) Specialty Primers, Sealers, and Undercoaters. The labels of all specialty primers, sealers, and undercoaters shall prominently display one or more of the descriptions listed in subsection (g)(1) through (g)(5):
 - 1) “For blocking stains;”
 - 2) “For fire-damaged substrates;”
 - 3) “For smoke-damaged substrates;”
 - 4) “For water-damaged substrates;”
 - 5) “For excessively chalky substrates.”
- h) Quick Dry Enamels. The labels of all quick dry enamels shall prominently display the words “Quick Dry” and the dry hard time.
- i) Non-Flat High-Gloss Coatings. The labels of all non-flat high-gloss coatings shall prominently display the words “High Gloss.”
- j) Stone Consolidants: Effective January 1, 2010, the labels of all Stone Consolidants shall prominently display the statement “Stone Consolidant - For Professional Use Only”.

Section 223.330 Record Keeping and Reporting Requirements

- a) Clear Brushing Lacquers. Each manufacturer of clear brushing lacquers shall report the following information for products sold in Illinois, upon request of the Agency, within 30 days written notice:
 - 1) The number of gallons of clear brushing lacquers sold in the state during the preceding calendar year; and
 - 2) The method used by the manufacturer to calculate state sales.
- b) Rust Preventive Coatings. Each manufacturer of rust preventive coatings shall report the following information for products sold in Illinois, upon request of the Agency, within 30 days written notice:
 - 1) The number of gallons of rust preventive coatings sold in the state during the preceding calendar year; and

- 2) The method used by the manufacturer to calculate state sales.
- c) Specialty Primers, Sealers, and Undercoaters. Each manufacturer of specialty primers, sealers, and undercoaters shall report the following information for products sold in Illinois, upon request of the Agency, within 30 days written notice:
- 1) The number of gallons of specialty primers, sealers, and undercoaters sold in the state during the preceding calendar year; and
 - 2) The method used by the manufacturer to calculate state sales.
- d) Toxic Exempt Compounds. For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall report the following information for products sold in Illinois, upon request of the Agency, within 30 days written notice:
- 1) The product brand name and a copy of the product label with the legible usage instructions;
 - 2) The product category listed in Section 223.210(a) to which the coating belongs;
 - 3) The total sales in Illinois during the calendar year to the nearest gallon; and
 - 4) The volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.
- e) Recycled Coatings.
- 1) Manufacturers of recycled coatings must submit a letter to the Agency self-certifying their status as a Recycled Paint Manufacturer upon request of the Agency, within 30 days written notice.
 - 2) Each recycled coatings manufacturer shall report the following information for products sold in Illinois, upon request of the Agency, within 30 days written notice:
 - A) The number of gallons of recycled coatings sold in the state during the preceding calendar year; and
 - B) The method used by the manufacturer to calculate state sales.

- f) Bituminous Coatings. Each manufacturer of “Bituminous Roof Coatings” or “Bituminous Roof Primers” shall report the following information for products sold in Illinois, upon request of the Agency, within 30 days written notice:
- 1) The number of gallons of “Bituminous Roof Coatings” or “Bituminous Roof Primers” sold in the state during the preceding calendar year; and
 - 2) The method used by the manufacturer to calculate state sales.

Section 223.340 Compliance Provisions and Test Methods

- a) Calculation of VOM Content. For the purpose of determining compliance with the VOM content limits in Section 223.310(a), the VOM content of a coating shall be determined by using the procedures described in subsections 223.340(a)(1) or 223.340(a)(2), as appropriate. The VOM content of a tint base shall be determined without colorant that is added after the tint base is manufactured.
- 1) With the exception of low solids coatings, determine the VOM content in grams of VOM per liter of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water and exempt compounds. Determine the VOM content as follows:

$$\text{VOM Content} = \frac{(W_s - W_w - W_{em})}{(V_m - V_w - V_{em})}$$

Where:

- VOM content = grams of VOM per liter of coating
- W_s = weight of volatiles, in grams
- W_w = weight of water, in grams
- W_{em} = weight of exempt materials, in grams
- V_m = volume of coating, in liters
- V_w = volume of water, in liters
- V_{em} = volume of exempt materials, in liters

- 2) For low solids coatings, determine the VOM content in units of grams of VOM per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds. Determine the VOM content as follows:

$$\text{VOM Content (ls)} = \frac{(W_s - W_w - W_{em})}{(V_m)}$$

Where:

VOM content (ls) = the VOM content of a low solids coating in grams per liter of coating
Ws = weight of volatile, in grams
Ww = weight of water, in grams
Wem = weight of exempt materials, in grams
Vm = volume of coating, in liters

- b) VOM Content of Coatings. To determine the physical properties of a coating in order to perform the calculations in subsection 223.340(a), the reference method for VOM content is USEPA Method 24, incorporated by reference in Section 223.120, except as provided in subsections 223.350 and 223.360. An alternative method to determine the VOM content of coatings is SCAQMD Method 304-91 (Revised February 1996), incorporated by reference in Section 223.120. The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised August 1996), incorporated by reference in subsection Section 223.120. To determine the VOM content of a coating, the manufacturer may use USEPA Method 24, or an equivalent alternative method, as provided in Section 223.350, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g. quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOM content, the Method 24 results will govern, except when an equivalent alternative method is approved as specified in Section 223.350. The Agency may require the manufacturer to conduct a Method 24 analysis.

Section 223.350 Alternative Test Methods

Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with subsection 223.340(b), after review and approved in writing by the Agency and the USEPA may also be used.

Section 223.360 Methacrylate Traffic Coating Markings

Analysis of methacrylate multi-component coatings used as traffic marking coatings shall be conducted according to a modification of USEPA Method 24 (40 CFR 59, subpart D, Appendix A), incorporated by reference in Section 223.120 or an equivalent method approved by the CARB. This method has not been approved for methacrylate multi-component coatings used for purposes other than as traffic marking coatings or for other classes of multi-component coatings.

Section 223.370 Test Methods

The following test methods are incorporated by reference herein, and shall be used to test coatings subject to the provisions of this Subpart:

- a) Flame Spread Index. The flame spread index of a fire-retardant coating shall be determined by the ASTM Designation E 84-99, "Standard Test Method for Surface Burning Characteristics of Building Materials," (see Section 223.307, Fire-Retardant Coating) or an equivalent method approved by the CARB.
- b) Fire-Resistance Rating. The fire-resistance rating of a fire-resistive coating shall be determined by ASTM designation E 119-98, "Standard Test Methods for Fire Tests of Building Construction Materials," (see Section 223.307, Fire-Resistive Coating) or an equivalent method approved by the CARB.
- c) Gloss Determination. The gloss of a coating shall be determined by ASTM Designation D 523-89 (1999), "Standard Test Method for Specular Gloss," (see Section 223.307, Flat Coating, Non-flat Coating, Non-flat - High-Gloss Coating, and Quick Dry Enamel) or an equivalent method approved by the CARB.
- d) Metal Content of Coatings. The metallic content of a coating shall be determined by SCAQMD Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," SCAQMD "Laboratory Methods of Analysis for Enforcement Samples," (see Section 223.307, Metallic Pigmented Coating).
- e) Acid Content of Coatings. The acid content of a coating shall be determined by ASTM Designation D 1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products," (see Section 223.307, Pre-Treatment Wash Primer) or an equivalent method approved by the CARB.
- f) Drying Times. The set-to-touch, dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined by ASTM Designation D 1640-95, "Standard Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature," (see Section 223.307, QuickDry Enamel and Quick-Dry Primer, Sealer, and Undercoater). The tack free time of a quick-dry enamel coating shall be determined by the Mechanical Test Method of ASTM Designation D 1640-95 or an equivalent method approved by the CARB.
- g) Surface Chalkiness. The chalkiness of a surface shall be determined using ASTM Designation D 4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films," (see Section 223.307, Specialty Primer, Sealer, and Undercoater) or an equivalent method approved by the CARB.
- h) Exempt Compounds – Siloxanes. Exempt compounds that are cyclic, branched, or linear, completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section 223.340 by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," BAAQMD Manual of Procedures, Volume III, adopted

November 6, 1996, (see Section 223.307, Volatile Organic Material, and subsection 223.340(b)).

- i) Exempt Compounds - Parachlorobenzotrifluoride (PCBTf). The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section 223.400 by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent-Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," BAAQMD Manual of Procedures, Volume III, adopted December 20, 1995, (see Section 223.307, Volatile Organic Material, and subsection 223.340(b)).
- j) Exempt Compounds. The content of compounds exempt under USEPA Method 24 shall be analyzed by SCAQMD Method 303-91 (Revised 1993), "Determination of Exempt Compounds," SCAQMD "Laboratory Methods of Analysis for Enforcement Samples," (see Section 223.307, Volatile Organic Material, and subsection 223.340(b)).
- k) VOM Content of Coatings. The VOM content of a coating shall be determined by USEPA Method 24 as it exists in Appendix A of 40 Code of Federal Regulations (CFR) Part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings," (see subsection 223.340(b)) or an equivalent method approved by the CARB.
- l) Alternative VOM Content of Coatings. The VOM content of coatings may be analyzed by either USEPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," SCAQMD "Laboratory Methods of Analysis for Enforcement Samples," (see subsection 223.340(b)).
- m) Methacrylate Traffic Marking Coatings. The VOM content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings," (September 11, 1998), (see subsection 223.360) or an equivalent method approved by the CARB.

SUBPART D: AEROSOL COATINGS

Section 223.400 Purpose

The purpose of this Subpart is to limit emissions of volatile organic materials (VOMs) by requiring reductions in the VOM content of Aerosol Coating products.

Section 223.405 Applicability

This Subpart shall apply to any person who sells, supplies, offers for sale, applies, or manufactures aerosol coating products for use in the state of Illinois, except as provided in Section 223.420.

Section 223.407 Definitions for Subpart D

The definitions contained in this Section apply only to the provisions of this Subpart. Unless otherwise defined herein, the definitions of terms used in this Subpart shall have the meanings specified for those terms in 35 Ill. Adm. Code Part 211.

“Adhesive” means a product used to bond one surface to another.

“Aerosol Coating Product” means a pressurized coating product containing pigments or resins that dispenses product ingredients 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.

“Anti-Static Spray” means a product used to prevent or inhibit the accumulation of static electricity.

“Art Fixative or Sealant” means a clear coating, including art varnish, workable art fixative, and ceramic coating, which is designed and labeled exclusively for application to paintings, pencil, chalk, or pastel drawings, ceramic art pieces, or other closely related art uses, in order to provide a final protective coating or to fix preliminary stages of artwork while providing a workable surface for subsequent revisions.

“Auto Body Primer” means an automotive primer or primer surfacer coating designed and labeled exclusively to be applied to a vehicle body substrate for the purposes of corrosion resistance and building a repair area to a condition in which, after drying, it can be sanded to a smooth surface.

“Automotive Bumper and Trim Product” means a product, including adhesion promoters and chip sealants, designed and labeled exclusively to repair and refinish automotive bumpers and plastic trim parts.

“Automotive Underbody Coating” means a flexible coating which contains asphalt or rubber and is designed and labeled exclusively for use on the underbody of motor vehicles to resist rust, abrasion and vibration, and to deaden sound.

“Aviation Propeller Coating” means a coating designed and labeled exclusively to provide abrasion resistance and corrosion protection for aircraft propellers.

“Aviation or Marine Primer” means a coating designed and labeled exclusively to meet federal specification TT-P-1757.

“Base Reactive Organic Gas Mixture” (Base ROG Mixture) means the mixture of reactive organic gases utilized in deriving the MIR scale.

“Belt Dressing” means a product applied on auto fan belts, water pump belting, power transmission belting, and industrial and farm machinery belting to prevent slipping, and to extend belt life.

“Cleaner” means a product designed and labeled primarily to remove soil or other contaminants from surfaces.

“Clear Coating” means a coating which is colorless, containing resins but no pigments except flattening agents, and is designed and labeled to form a transparent or translucent solid film.

“Coating Solids” means the nonvolatile portion of an aerosol coating product, consisting of the film forming ingredients, including pigments and resins.

“Commercial Application” means the use of aerosol coating products in the production of goods, or the providing of services for profit, including touch-up and repair.

“Corrosion Resistant Brass, Bronze, or Copper Coating” means a clear coating designed and labeled exclusively to prevent tarnish and corrosion of uncoated brass, bronze, or copper metal surfaces.

“Distributor” means any person to whom a consumer product is sold or supplied for the purposes of resale or distribution in commerce, except that manufacturers, retailers, and consumers are not distributors.

“Dye” means a product containing no resins which is used to color a surface or object without building a film.

“Electrical Coating” means a coating designed and labeled exclusively as such, which is used exclusively to coat electrical components such as wire windings on electric motors to provide insulation and protection from corrosion.

“Enamel” means a coating which cures by chemical cross-linking of its base resin and is not resolvable in its original solvent.

“Engine Paint” means a coating designed and labeled exclusively to coat engines and their components.

“Exact Match Finish, Engine Paint” means a coating which meets all of the following criteria:

The product is designed and labeled exclusively to exactly match the color of an original, factory-applied engine paint;

The product is labeled with the manufacturer's name for which they were formulated; and

The product is labeled with one of the following:

The original equipment manufacturer's (O.E.M.) color code number;

The color name; or

Other designation identifying the specific O.E.M. color to the purchaser.

“Exact Match Finish, Automotive” means a topcoat which meets all of the following criteria:

The product is designed and labeled exclusively to exactly match the color of an original, factory-applied automotive coating during the touch-up of automobile finishes;

The product is labeled with the manufacturer's name for which they were formulated; and

The product is labeled with one of the following:

The original equipment manufacturer's (O.E.M.) color code number;

The color name; or

Other designation identifying the specific O.E.M. color to the purchaser. Notwithstanding the foregoing, automotive clear coatings designed and labeled exclusively for use over automotive exact match finishes to replicate the original factory applied finish shall be considered to be automotive exact match finishes.

“Exact Match Finish, Industrial” means a coating which meets all of the following criteria:

The product is designed and labeled exclusively to exactly match the color of an original, factory-applied industrial coating during the touch-up of manufactured products;

The product is labeled with the manufacturer's name for which they were formulated; and

The product is labeled with one of the following:

The original equipment manufacturer's (O.E.M.) color code number;

The color name; or

Other designation identifying the specific O.E.M. color to the purchaser.

“Flat Paint Products” means a coating which, when fully dry, registers specular gloss less than or equal to 15 on an 85° gloss meter, or less than or equal to five on a 60° gloss meter, or which is labeled as a flat coating.

“Flatting Agent” means a compound added to a coating to reduce the gloss of the coating without adding color to the coating.

“Floral Spray” means a coating designed and labeled exclusively for use on fresh flowers, dried flowers, or other items in a floral arrangement for the purposes of coloring, preserving or protecting their appearance.

“Fluorescent Coating” means a coating labeled as such, which converts absorbed incident light energy into emitted light of a different hue.

“Glass Coating” means a coating designed and labeled exclusively for use on glass or other transparent material to create a soft, translucent light effect, or to create a tinted or darkened color while retaining transparency.

“Ground Traffic/Marking Coating” means a coating designed and labeled exclusively to be applied to dirt, gravel, grass, concrete, asphalt, warehouse floors, or parking lots. Such coatings must be in a container equipped with a valve and sprayhead designed to direct the spray toward the surface when the can is held in an inverted vertical position.

“High-Temperature Coating” means a high performance coating, excluding engine paint, labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

“Hobby/Model/Craft Coating” means a coating which is designed and labeled exclusively for hobby applications and is sold in aerosol containers of six ounces by weight or less.

“Ingredient” means a component of an aerosol coating product.

“Ink” means a fluid or viscous substance used in the printing industry to produce letters, symbols or illustrations, but not to coat an entire surface.

“Lacquer” means a thermoplastic film-forming material dissolved in organic solvent, which dries primarily by solvent evaporation, and is resolvable in its original solvent.

“Layout Fluid” (or toolmaker's ink) means a coating designed and labeled exclusively to be sprayed on metal, glass or plastic, to provide a glare-free surface on which to scribe designs, patterns or engineering guide lines prior to shaping the piece.

“Leather preservative or cleaner” means a leather treatment material applied exclusively to clean or preserve leather.

“Lubricant” means a substance such as oil, petroleum distillates, grease, graphite, silicone, lithium, etc. that is used to reduce friction, heat, or wear when applied between surfaces.

“Manufacturer” means any person who imports, manufactures, assembles, produces, packages, repackages, or relabels a consumer product.

“Marine Spar Varnish” means a coating designed and labeled exclusively to provide a protective sealant for marine wood products.

“Maskant” means a coating applied directly to a component to protect surface areas when chemical milling, anodizing, aging, bonding, plating, etching, or performing other chemical operations on the surface of the component.

“Maximum Incremental Reactivity” (MIR) means the maximum change in weight of ozone formed by adding a compound to the “Base ROG Mixture” per weight of compound added, expressed to hundredths of a gram ($\text{g O}_3/\text{g ROC}$). MIR values for individual compounds and hydrocarbon solvents are specified in Appendices A and B to this Part.

“Metallic Coating” means a topcoat which contains at least 0.5 percent by weight elemental metallic pigment in the formulation, including propellant, and is labeled as “metallic”, or with the name of a specific metallic finish such as “gold,” “silver,” or “bronze.”

“Mold Release” means a coating applied to molds to prevent products from sticking to the surfaces of the mold.

“Multi-Component Kit” means an aerosol spray paint system which requires the application of more than one component (e.g. foundation coat and top coat), where both components are sold together in one package.

“Nonflat Paint Product” means a coating which, when fully dry, registers a specular gloss greater than 15 on an 85° gloss meter or greater than five on a 60° gloss meter.

“Ozone” means a colorless gas with a pungent odor, having the molecular form O₃.

“Percent VOM By Weight” means the ratio of the weight of VOM to the total weight of the product contents expressed as follows:

$$\text{Percent VOM By Weight} = (W_{\text{VOM}} / W_{\text{total}}) \times 100$$

Where:

For products containing no water and no volatile compounds exempt from the definition of VOM: W_{VOM} = the weight of volatile materials;

For products containing water or exempt compounds: W_{VOM} = the weight of volatile compounds, less water, and less compounds exempt from the VOM definition in Section 223.407; and

W_{total} = the total weight of the product contents.

“Photograph Coating” means a coating designed and labeled exclusively to be applied to finished photographs to allow corrective retouching, protection of the image, changes in gloss level, or to cover fingerprints.

“Pleasure Craft” means privately owned vessels used for noncommercial purposes.

“Pleasure Craft Finish Primer/Surfacer/Undercoater” means a coating designed and labeled exclusively to be applied prior to the application of a pleasure craft topcoat for the purpose of corrosion resistance and adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections.

“Pleasure Craft Topcoat” means a coating designed and labeled exclusively to be applied to a pleasure craft as a final coat above the waterline and below the waterline when stored out of water. This category does not include clear coatings.

“Polyolefin Adhesion Promoter” means a coating designed and labeled exclusively to be applied to a polyolefin or polyolefin copolymer surface of automotive body parts, bumpers, or trim parts to provide a bond between the surface and subsequent coats.

“Primer” means for purposes of this Part, a coating labeled and formulated for application to a substrate to provide a firm bind between the substrate and subsequent coats.

“Product-Weighted MIR” (PWMIR) means the sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity

expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging) and calculated according to the following equations:

Weighted MIR (Wtd-MIR) ingredient = MIR x Weight fraction ingredient,

and,

Product Weighted MIR = (Wtd-MIR)₁ + (Wtd-MIR)₂ + ... + (Wtd-MIR)_n

Where,

MIR = ingredient MIR, as specified in Section 223.410(m);

Wtd-MIR = MIR of each ingredient in a product multiplied by the weight fraction of that ingredient, as shown in (a);

1,2,3,...,n = each ingredient in the product up to the total n ingredients in the product.

“Propellant” means a liquefied or compressed gas that is used in whole or in part to expel a liquid or any other material from the same self-pressurized container or from a separate container.

“Reactivity Limit” means the maximum “Product-Weighted MIR” allowed in an aerosol coating product that is subject to the limits specified in Section 223.410(c) for a specific category, expressed as g O₃/g product.

“Reactive Organic Compound (ROC)” means any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

“Responsible Party” means the company, firm or establishment which is listed on the product's label. If the label lists two companies, firms or establishments, the responsible party is the party which the product was “manufactured for” or “distributed by,” as noted on the label.

“Retailer” means any person who sells, supplies, or offers consumer products for sale directly to consumers.

“Retail Outlet” means for purposes of this Part, any establishment at which consumer products are sold, supplied, or offered for sale directly to consumers.

“Rust Converter” means a product designed and labeled exclusively to convert rust to an inert material and which contains a minimum acid content of 0.5 percent by weight, and a maximum coating solids content of 0.5 percent by weight.

“Shellac Sealer” means a clear or pigmented coating formulated solely with the resinous secretion of the lac beetle (*Laccifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

“Slip-Resistant Coating” means a coating designed and labeled exclusively as such, which is formulated with synthetic grit and used as a safety coating.

“Spatter Coating/Multicolor Coating” means a coating labeled exclusively as such wherein spots, globules, or spatters of contrasting colors appear on or within the surface of a contrasting or similar background.

“Stain” means a clear, semi-transparent, or opaque coating labeled and formulated to change the color of a surface, but not conceal the grain pattern or texture.

“Upper-Limit Kinetic Reactivity” (ULKR) means the maximum percentage of the emitted ROC which has reacted. For Subpart D, the ULKR is one hundred percent and is used to calculate the ULMIR.

“Upper-Limit Mechanistic Reactivity” (ULMR) means the maximum gram(s) of ozone formed per gram of reactive organic compound (ROC) reacting. The ULMR is used to calculate the ULMIR.

“Upper-Limit MIR” (ULMIR) means the upper-limit kinetic reactivity (ULKR) multiplied by the upper-limit mechanistic reactivity (ULMR), as calculated using the following equation:

$$\text{ULMIR} = \text{Upper Limit KR} \times \text{Upper Limit MR.}$$

The units for ULMIR are g O₃/g ROC.

“Vinyl/Fabric/Leather/Polycarbonate Coating” means a coating designed and labeled exclusively to coat vinyl, fabric, leather, or polycarbonate substrates.

“Webbing/Veiling Coating” means a coating designed and labeled exclusively to provide a stranded to spider webbed appearance when applied.

“Weight Fraction” means the weight of an ingredient divided by the total net weight of the product, expressed to thousandths of a gram of ingredient per gram of product (excluding container and packaging). The weight fraction is calculated according to the following equation:

$$\text{Weight Fraction} = \frac{\text{Weight of the Ingredient}}{\text{Total Product Net Weight (excluding container and packaging).}}$$

“Weld-Through Primer” means a coating designed and labeled exclusively to provide a bridging or conducting effect for corrosion protection following welding.

“Wood Stain” means a coating which is formulated to change the color of a wood surface but not conceal the surface.

“Wood Touch-Up/Repair/Restoration” means a coating designed and labeled exclusively to provide an exact color or sheen match on finished wood products.

“Working Day” means any day between Monday through Friday, inclusive, except for days that are federal holidays.

Section 223.410 Limits and Requirements for Aerosol Coating Products

- a) Compliance with Limits. Aerosol coating products manufactured beginning January 1, 2009, shall comply with the reactivity requirements specified in Section 223.410(b).
- b) Reactivity Limits for Aerosol Coating Products.

Except as provided in Sections 223.410(a) and 223.420, no person shall sell, supply, offer for sale, apply, or manufacture for use in Illinois, any aerosol coating product which, at the time of sale, use, or manufacture, contains reactive organic compounds that have a PWMIR in excess of the limits specified below after January 1, 2009.

Aerosol Coating Category	Product-Weighted MIR in Grams Ozone per Gram Product (gO₃/g product)
---------------------------------	--

1) General Coatings

A) Clear Coatings	1.50
B) Flat Paint Products	1.20
C) Fluorescent Coatings	1.75
D) Metallic Coatings	1.90
E) Nonflat Paint Products	1.40
F) Primers	1.20

2) Specialty Coatings

A) Art Fixatives or Sealants	1.80
B) Auto Body Primers	1.55
C) Automotive Bumper and Trim Products	1.75
D) Aviation or Marine Primers	2.00
E) Aviation Propeller Coatings	2.50
F) Corrosion Resistant Brass, Bronze, or Copper Coatings	1.80
G) Exact Match Finishes:	
1) Engine Enamel	1.70
2) Automotive	1.50
3) Industrial	2.05
H) Floral Sprays	1.70
I) Glass Coatings	1.40
J) Ground Traffic/Marking Coatings	1.20
K) High Temperature Coatings	1.85
L) Hobby/Model/Craft Coatings:	
1) Enamel	1.45
2) Lacquer	2.70
3) Clear or Metallic	1.60
M) Marine Spar Varnishes	0.90
N) Photograph Coatings	1.00
O) Pleasure Craft Finish Primers,	1.05

Surfacers or Undercoaters

P) Pleasure Craft Topcoats	0.60
Q) Polyolefin Adhesion Promoters	2.50
R) Shellac Sealers:	
1) Clear	1.00
2) Pigmented	0.95
S) Slip-Resistant Coatings	2.45
T) Spatter/Multicolor Coatings	1.05
U) Vinyl/Fabric/Leather/Polycarbonate Coatings	1.55
V) Webbing/Veil Coatings	0.85
W) Weld-Through Primers	1.00
X) Wood Stains	1.40
Y) Wood Touch-Up, Repair or Restoration Coatings	1.50

- c) If an aerosol coating product is subject to both a general coating limit and a specialty coating limit, as listed in subsection 223.410(b), and the product meets all the criteria of the applicable specialty coating category as defined in Section 223.407, then the specialty coating limit shall apply instead of the general coating limit.
- d) Notwithstanding the provisions of Sections 223.410(c) and 223.430, high temperature coatings that contain at least 0.5 percent by weight of an elemental metallic pigment in the formulation, including propellant, shall be subject to the limit specified for metallic coatings.
- e) Notwithstanding the provisions of Section 223.410(a) and (b), an aerosol coating product manufactured prior to each of the effective dates specified for that product in Section 223.410(b) may be sold, supplied, offered for sale, or applied for up to January 1, 2012. This subsection (f) does not apply to any product which does not display on the product container or package the date on which the product was manufactured, or a code indicating such date.
- f) Products Containing Methylene Chloride or Trichloroethylene.

- 1) For any aerosol coating product subject to the reactivity limits specified in Section 223.410(b), no person shall sell, supply, offer for sale, apply, or manufacture for use in Illinois any aerosol coating product which contains methylene chloride or trichloroethylene.
 - 2) The requirements of this Section shall not apply to any aerosol coating product containing methylene chloride or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight of the product.
- g) Products Containing Perchloroethylene or Ozone Depleting Substances.
- 1) For any aerosol coating product subject to the reactivity limits specified in Section 223.410(b), no person shall sell, supply, offer for sale, apply, or manufacture for use in Illinois any aerosol coating product which contains perchloroethylene.
 - 2) For any aerosol coating product subject to the reactivity limits specified in Section 223.410(b), no person shall sell, supply, offer for sale, apply, or manufacture for use in Illinois any aerosol coating product which contains an ozone depleting substance identified by the USEPA in the Code of Federal Regulations, 40 CFR Part 82, Subpart A, under Appendices A and B, July 1, 1998.
 - 3) The requirements of Section 223.410(g)(1) and (g)(2) shall not apply to any aerosol coating product containing perchloroethylene, or an ozone depleting substance as identified in Section 223.410(g)(1) or (g)(2), that are present as impurities in a combined amount equal to or less than 0.01% by weight of the product.
- h) Multicomponent Kits.
- 1) No person shall sell, supply, offer for sale, apply, or manufacture for use in Illinois any multi-component kit, as defined in Section 223.407, in which the total weight of VOM and methylene chloride contained in the multi-component kit $(\text{Total VOM} + \text{MC})_{\text{actual}}$ is greater than the total weight of VOM and methylene chloride that would be allowed in the multi-component kit if each component product in the kit had separately met the applicable VOM standards $(\text{Total VOM} + \text{MC})_{\text{standard}}$ as calculated below:

$$(\text{Total VOM} + \text{MC})_{\text{actual}} = (\text{VOM}_1 \times W_1) + (\text{MC}_1 \times W_1) + (\text{VOM}_2 \times W_2) + (\text{MC}_2 \times W_2) + (\text{VOM}_n \times W_n) + (\text{MC}_n \times W_n)$$

$$(\text{Total VOM} + \text{MC})_{\text{standard}} = (\text{STD}_1 \times W_1) + (\text{STD}_2 \times W_2) + (\text{STD}_n \times W_n)$$

Where:

VOM = the percent by weight VOM of the component product

MC = the percent by weight methylene chloride of the Component product

STD = the VOM standard specified in Section 223.410(a) which applies to the component product

W = the weight of the product contents (excluding container)

Subscript 1 denotes the first component product in the kit

Subscript 2 denotes the second component product in the kit

Subscript n denotes any additional component product

- 2) No person shall sell, supply, offer for sale, apply, or manufacture for use in Illinois any multi-component kit, as defined in Section 223.407, in which the Kit PWMIR is greater than the Total Reactivity Limit. The Total Reactivity Limit represents the limit that would be allowed in the multi-component kit if each component product in the kit had separately met the applicable Reactivity Limit. The Kit PWMIR and Total Reactivity Limit are calculated as in equations (A), (B) and (C) below:

A) $\text{Kit PWMIR} = (\text{PWMIR}_{(1)} \times W_1) + (\text{PWMIR}_{(2)} \times W_2) + \dots + (\text{PWMIR}_{(n)} \times W_n)$

B) $\text{Total Reactivity Limit} = (\text{RL}_1 \times W_1) + (\text{RL}_2 \times W_2) + \dots + (\text{RL}_n \times W_n)$

C) $\text{Kit PWMIR} \leq \text{Total Reactivity Limit}$

Where:

W = the weight of the product contents (excluding container)

RL = the Reactivity Limit specified in Section 223.410(b)

Subscript 1 denotes the first component product in the kit

Subscript 2 denotes the second component product in the kit

Subscript n denotes any additional component product

- i) No person shall sell, supply, offer for sale, apply, or manufacture for use in the state of Illinois any aerosol coating product assembled by adding bulk paint to aerosol containers of propellant, unless such products comply with the reactivity limits specified in Section 223.410(b) for products subject to those limits.

- j) Assignment of Maximum Incremental Reactivity (MIR) Values.
- 1) In order to calculate the PWMIR of aerosol coating products as specified in Section 223.407, the MIR values of product ingredients are assigned as follows:
 - A) Any ingredient which does not contain carbon is assigned a MIR value of 0.0.
 - B) Any aerosol coating solid, including but not limited to resins, pigments, fillers, plasticizers, and extenders is assigned a MIR value of 0.0.
 - C) For any ROC not covered under subparagraphs (A) and (B) of this paragraph (1), each ROC is assigned the MIR value set forth in Appendices A and B to this Part.
 - D) Except as provided in paragraph (3) of this subsection, only ROCs listed in Appendices A and B to this Part, can be used to comply with the reactivity limits specified in Section 223.410(b).
 - E) All individual compounds in an amount equal to or exceeding 0.1 percent shall be considered ingredients in calculating the PWMIR. Such individual compounds shall be considered ingredients whether or not they are reported by the manufacturer pursuant to Appendix A and B.
 - 2) Calculating PWMIR Values.
 - A) The MIR values dated January 1, 2009, shall be used to calculate the PWMIR for aerosol coating products.
 - B) If a new ROC is added to Appendices A and B to this regulation, then the new ROC may be used in aerosol coating products, and the MIR value for the new ROC shall be used to calculate the PWMIR after the effective date of the MIR value.
 - 3) The MIR value for any aromatic hydrocarbon solvent with a boiling range different from the ranges specified in subsection (b) of Appendix B of this Part shall be assigned as follows:
 - A) If the solvent dry point is lower than or equal to 420 degrees F, the MIR value specified in subsection (b) of Appendix B of this Part for Bin 23 shall be used.

- B) If the solvent initial boiling point is higher than 420 degrees F, the MIR value specified in subsection (b) of Appendix B of this Part for Bin 24 shall be used.

Section 223.420 Exemptions

- a) This Subpart shall not apply to aerosol lubricants, mold releases, automotive underbody coatings, electrical coatings, cleaners, belt dressings, anti-static sprays, layout fluids and removers, adhesives, maskants, rust converters, dyes, inks, and leather preservatives or cleaners.
- b) This Subpart shall not apply to any aerosol coating product manufactured in Illinois for shipment and use outside of Illinois.
- c) The provisions of this Subpart shall not apply to a manufacturer, distributor, or responsible party who sells, supplies, or offers for sale in Illinois an aerosol coating product that does not comply with the limits specified in subsection 223.410(b), as long as the manufacturer, distributor, or responsible party can demonstrate both that the aerosol coating product is intended for shipment and use outside of Illinois, and that the manufacturer, distributor, or responsible party has taken reasonable prudent precautions to assure that the aerosol coating product is not distributed to Illinois. This subsection (c) does not apply to aerosol coating products that are sold, supplied, or offered for sale by any person to retail outlets in Illinois.
- d) The requirements in subsection 223.410(b) prohibiting the application of aerosol coating products that exceed the limits specified in the subsection 223.410(b) shall apply only to commercial application of aerosol coating products.

Section 223.430 Most Restrictive Limit

Except as otherwise provided in Section 223.410(c), if anywhere on the container of any aerosol coating product subject to the specified limits in subsection 223.410(b), or on any sticker or label affixed thereto, or in any sales or advertising literature, any representation is made that the product may be used as, or is suitable for use as a product for which a lower limit is specified, then the lowest applicable limit shall apply.

Section 223.440 Labeling Requirements

- a) Both the manufacturer and responsible party for each aerosol coating product subject to this Subpart shall ensure that all products clearly display the following information on each product container which is manufactured 90 days or later after the effective date of this Subpart.

- 1) The applicable reactivity limit for the product that is specified in Section 223.410(b);
 - 2) The aerosol coating category as defined in Section 223.407, or an abbreviation of the coating category; and
 - 3) The day, month, and year on which the product was manufactured, or a code indicating such date.
- b) The information required in Section 223.440(a), shall be displayed on the product container such that it is readily observable without removing or disassembling any portion of the product container or packaging. For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.
- c) No person shall remove, alter, conceal, or deface the information required in Section 223.440(a) prior to final sale of the product.
- d) For any aerosol coating product subject to Section 223.410(a), if the manufacturer or responsible party uses a code indicating the date of manufacture or an abbreviation of the coating category as defined in Section 223.407, an explanation of the code or abbreviation must be filed with the Agency prior to the use of the code or abbreviation.

Section 223.450 Reporting Requirements

- a) Any responsible party for an aerosol coating product subject to this article which is sold, supplied, or offered for sale in Illinois, must supply the Agency, upon request, with the following information within 30 days of the effective date of this Subpart: the company name, mail address, contact person, and the telephone number of the contact person. For responsible parties who do not manufacture their own aerosol coating products, the responsible party shall also supply the information specified in this subsection (a) for those manufacturers which produce products for the responsible party. The responsible party shall also notify the Agency within 30 days of any change in the information supplied to the Agency pursuant to this subsection (a).
- b) Upon 30 days written notice, each manufacturer or responsible party subject to this Subpart shall submit to the Agency a written report with all of the following information for each product they manufacture under their name or another company's name:
- 1) The brand name of the product;
 - 2) Upon request, a copy of the product label;
 - 3) The owner of the trademark or brand names;
 - 4) The product category as defined in Section 223.407;

- 5) The annual Illinois sales in pounds per year and the method used to calculate Illinois annual sales;
- 6) Product formulation data: For products subject to the reactivity limits specified in Section 223.410(c), the WMIR and the weight fraction of all ingredients including: water, solids, each ROC, and any compounds assigned a MIR value of zero as specified in Section 223.410(j), and Appendices A or B to this Part. Each ROC must be reported as an ingredient if it is present in an amount greater than or equal to 0.1% by weight of the final aerosol coatings formulation. If an individual ROC is present in an amount less than 0.1% by weight, then it does not need to be reported as an ingredient. In addition, an impurity that meets the following definition does not need to be reported as an ingredient.

For the purpose of this section, an “impurity” means an individual chemical compound present in a raw material which is incorporated into the final aerosol coatings formulation, if the compound is present below the following amounts in the raw material:

- A) For individual compounds that are carcinogens, as defined in 29 CFR section 1910.1200(d)(4), each compound must be present in an amount less than 0.1% by weight in order to be considered an “impurity.”
 - B) For all other compounds present in a raw material, a compound must be present in an amount less than one percent by weight in order to be considered an “impurity”;
- 7) An identification of each product brand name as a “household,” “industrial,” or “both” product; and
 - 8) Any other information necessary to determine the emissions or the product-weighted MIR from aerosol coating products. The information requested in this Subsection 223.450(b) may be supplied as an average for a group of aerosol coating products within the same coating category when the products do not vary in VOM content by more than two percent (by weight), and the coatings are based on the same resin type, or the products are color variations of the same product (even if the coatings vary by more than two percent in VOM content).
- c) Upon written request, the responsible party for aerosol coating products subject to this Subpart shall supply the Agency with a list of all exempt compounds contained in any aerosol coating product within 15 working days.

Section 223.460 Test Methods

Compliance with the requirements of this Subpart shall be determined by using the following test methods, which are incorporated by reference herein. Alternative test methods which are shown to accurately determine the VOM content, ingredient name and weight percent of each ingredient, exempt compound content, metal content, specular gloss, or acid content may also be used after approval in writing by the Agency:

- a) The VOM content of all aerosol coating products subject to the provisions of this Subpart shall be determined by the procedures set forth in “Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOM) in Consumer Products and Reactive Organic Compounds in Aerosol Coating Products,” adopted September 25, 1997, and as last amended on May 5, 2005.
- b) Testing for Products Subject to the Reactivity Limits Specified in Section 223.410(b).
 - 1) The ingredients and the amount of each ingredient of all aerosol coating products subject to the provisions of this Subpart shall be determined by the procedures set forth in “Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOM) in Consumer Products,” adopted September 25, 1997 and as last amended on May 5, 2005.
 - 2) Upon written notification from the Agency, the aerosol coating manufacturer shall have 10 working days to provide to the Agency the following information for products selected for testing:
 - A) The product category as defined in Section 223.407;
 - B) The PWMIR;
 - C) The weight fraction of all ingredients including: water, solids, each ROC, and any compounds assigned a MIR value of zero as specified in sections 223.410(j), and Appendices A and B to this Part. Each ROC must be reported as an ingredient if it is present in an amount greater than or equal to 0.1% by weight of the final aerosol coatings formulation. If an individual ROC is present in an amount less than 0.1% by weight, then it does not need to be reported as an ingredient. In addition, an impurity that meets the following definition does not need to be reported as an ingredient.

For the purpose of this section, an “impurity” means an individual chemical compound present in a raw material which is incorporated into the final aerosol coatings formulation, if the compound is present below the following amounts in the raw material:

- i) For individual compounds that are carcinogens, as defined in 29 CFR Section 1910.1200(d)(4), each compound must be present in an amount less than 0.1% by weight in order to be considered an “impurity.”
 - ii) For all other compounds present in a raw material, a compound must be present in an amount less than one percent by weight in order to be considered an “impurity”;
 - D) Any other information necessary to determine the PWMIR of the aerosol coating products to be tested.
- 3) Final determination of the PWMIR of the aerosol coatings shall be determined using the information obtained from Appendix A and B.
- c) **Metal Content.** The metal content of metallic aerosol coating products shall be determined by SCAQMD Test Method 318-95 “Determination of Weight Percent Elemental Metal in Coatings by X-ray Diffraction” July 1996, which is incorporated by reference in Section 223.120.
- d) **Specular Gloss.** Specular gloss of flat and nonflat coatings shall be determined by ASTM Method D-523-89, March 31, 1989, which is incorporated by reference in Section 223.120.
- e) **Acid Content.** The acid content of rust converters shall be determined by ASTM Method D-1613-96, “Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products, May 10, 1996, which is incorporated by reference in Section 223.120.
- f) **Lacquers.** Lacquer aerosol coating products shall be identified according to the procedures specified in ASTM Method D-5043-90, “Standard Test Methods for Field Identification of Coatings,” April 27, 1990, which is incorporated by reference in Section 223.120.

APPENDIX A MAXIMUM INCREMENTAL REACTIVITY

Tables of Maximum Incremental Reactivity (MIR) Values

MIR Values for Compounds.

Organic Compound	MIR Value
1. Carbon Monoxide	0.06
2. Methane	0.01
3. Ethane	0.31

4.	Propane	0.56
5.	n-Butane	1.33
6.	n-Pentane	1.54
7.	n-Hexane	1.45
8.	n-Heptane	1.28
9.	n-Octane	1.11
10.	n-Nonane	0.95
11.	n-Decane	0.83
12.	n-Undecane	0.74
13.	n-Dodecane	0.66
14.	n-Tridecane	0.62
15.	n-Tetradecane	0.58
16.	n-Pentadecane	0.53
17.	n-C16	0.52
18.	n-C17	0.49
19.	n-C18	0.44
20.	n-C19	0.44
21.	n-C20	0.42
22.	n-C21	0.40
23.	n-C22	0.38
24.	Isobutane	1.35
25.	Isopentane	1.68
26.	Neopentane	0.69
27.	Branched C5 Alkanes	1.68
28.	2,2-Dimethyl Butane	1.33
29.	2,3-Dimethyl Butane	1.14
30.	2-Methyl Pentane (Isohexane)	1.80
31.	3-Methyl Pentane	2.07
32.	Branched C6 Alkanes	1.53
33.	2,2,3-Trimethyl Butane	1.32
34.	2,2-Dimethyl Pentane	1.22
35.	2,3-Dimethyl Pentane	1.55
36.	2,4-Dimethyl Pentane	1.65
37.	2-Methyl Hexane	1.37
38.	3,3-Dimethyl Pentane	1.32
39.	3-Methyl Hexane	1.86
40.	Branched C7 Alkanes	1.63
41.	2,2,3,3-Tetramethyl Butane	0.44
42.	2,2,4-Trimethyl Pentane (Isooctane)	1.44
43.	2,2-Dimethyl Hexane	1.13
44.	2,3,4-Trimethyl Pentane	1.23
45.	2,3-Dimethyl Hexane	1.34
46.	2,4-Dimethyl Hexane	1.80
47.	2,5-Dimethyl Hexane	1.68
48.	2-Methyl Heptane	1.20
49.	3-Methyl Heptane	1.35

50.	4-Methyl Heptane	1.48
51.	Branched C8 Alkanes	1.57
52.	2,2,5-Trimethyl Hexane	1.33
53.	2,3,5-Trimethyl Hexane	1.33
54.	2,4-Dimethyl Heptane	1.48
55.	2-Methyl Octane	0.96
56.	3,3-Diethyl Pentane	1.35
57.	3,5-Dimethyl Heptane	1.63
58.	4-Ethyl Heptane	1.44
59.	4-Methyl Octane	1.08
60.	Branched C9 Alkanes	1.25
61.	2,4-Dimethyl Octane	1.09
62.	2,6-Dimethyl Octane	1.27
63.	2-Methyl Nonane	0.86
64.	3,4-Diethyl Hexane	1.20
65.	3-Methyl Nonane	0.89
66.	4-Methyl Nonane	0.99
67.	4-Propyl Heptane	1.24
68.	Branched C10 Alkanes	1.09
69.	2,6-Dimethyl Nonane	0.95
70.	3,5-Diethyl Heptane	1.21
71.	3-Methyl Decane	0.77
72.	4-Methyl Decane	0.80
73.	Branched C11 Alkanes	0.87
74.	2,3,4,6-Tetramethyl Heptane	1.26
75.	2,6-Diethyl Octane	1.09
76.	3,6-Dimethyl Decane	0.88
77.	3-Methyl Undecane	0.70
78.	5-Methyl Undecane	0.72
79.	Branched C12 Alkanes	0.80
80.	2,3,5,7-Tetramethyl Octane	1.06
81.	3,6-Dimethyl Undecane	0.82
82.	3,7-Diethyl Nonane	1.08
83.	3-Methyl Dodecane	0.64
84.	5-Methyl Dodecane	0.64
85.	Branched C13 Alkanes	0.73
86.	2,4,6,8-Tetramethyl Nonane	0.94
87.	2,3,6-Trimethyl 4-Isopropyl Heptane	1.24
88.	3,7-Dimethyl Dodecane	0.74
89.	3,8-Diethyl Decane	0.68
90.	3-Methyl Tridecane	0.57
91.	6-Methyl Tridecane	0.62
92.	Branched C14 Alkanes	0.67
93.	2,4,5,6,8-Pentamethyl Nonane	1.11
94.	2-Methyl 3,5-Diisopropyl Heptane	0.78
95.	3,7-Dimethyl Tridecane	0.64

96.	3,9-Diethyl Undecane	0.62
97.	3-Methyl Tetradecane	0.53
98.	6-Methyl Tetradecane	0.57
99.	Branched C15 Alkanes	0.60
100.	2,6,8-Trimethyl 4-Isopropyl Nonane	0.76
101.	3-Methyl Pentadecane	0.50
102.	4,8-Dimethyl Tetradecane	0.55
103.	7-Methyl Pentadecane	0.51
104.	Branched C16 Alkanes	0.54
105.	2,7-Dimethyl 3,5-Diisopropyl Heptane	0.69
106.	Branched C17 Alkanes	0.51
107.	Branched C18 Alkanes	0.48
108.	Cyclopropane	0.10
109.	Cyclobutane	1.05
110.	Cyclopentane	2.69
111.	Cyclohexane	1.46
112.	Isopropyl Cyclopropane	1.52
113.	Methylcyclopentane	2.42
114.	C6 Cycloalkanes	1.46
115.	1,3-Dimethyl Cyclopentane	2.15
116.	Cycloheptane	2.26
117.	Ethyl Cyclopentane	2.27
118.	Methylcyclohexane	1.99
119.	C7 Cycloalkanes	1.99
120.	C8 Bicycloalkanes	1.75
121.	1,3-Dimethyl Cyclohexane	1.72
122.	Cyclooctane	1.73
123.	Ethylcyclohexane	1.75
124.	Propyl Cyclopentane	1.91
125.	C8 Cycloalkanes	1.75
126.	C9 Bicycloalkanes	1.57
127.	1,1,3-Trimethyl Cyclohexane	1.37
128.	1-Ethyl-4-Methyl Cyclohexane	1.62
129.	Propyl Cyclohexane	1.47
130.	C9 Cycloalkanes	1.55
131.	C10 Bicycloalkanes	1.29
132.	1,3-Diethyl Cyclohexane	1.34
133.	1,4-Diethyl Cyclohexane	1.49
134.	1-Methyl-3-Isopropyl Cyclohexane	1.26
135.	Butyl Cyclohexane	1.07
136.	C10 Cycloalkanes	1.27
137.	C11 Bicycloalkanes	1.01
138.	1,3-Diethyl-5-Methyl Cyclohexane	1.11
139.	1-Ethyl-2-Propyl Cyclohexane	0.95
140.	Pentyl Cyclohexane	0.91
141.	C11 Cycloalkanes	0.99

142. C12 Bicycloalkanes	0.88
143. C12 Cycloalkanes	0.87
144. 1,3,5-Triethyl Cyclohexane	1.06
145. 1-Methyl-4-Pentyl Cyclohexane	0.81
146. Hexyl Cyclohexane	0.75
147. C13 Bicycloalkanes	0.79
148. 1,3-Diethyl-5-Propyl Cyclohexane	0.96
149. 1-Methyl-2-Hexyl Cyclohexane	0.70
150. Heptyl Cyclohexane	0.66
151. C13 Cycloalkanes	0.78
152. C14 Bicycloalkanes	0.71
153. 1,3-Dipropyl-5-Ethyl Cyclohexane	0.94
154. 1-Methyl-4-Heptyl Cyclohexane	0.58
155. Octyl Cyclohexane	0.60
156. C14 Cycloalkanes	0.71
157. C15 Bicycloalkanes	0.69
158. 1,3,5-Tripropyl Cyclohexane	0.90
159. 1-Methyl-2-Octyl Cyclohexane	0.60
160. Nonyl Cyclohexane	0.54
161. C15 Cycloalkanes	0.68
162. 1,3-Dipropyl-5-Butyl Cyclohexane	0.77
163. 1-Methyl-4-Nonyl Cyclohexane	0.55
164. Decyl Cyclohexane	0.50
165. C16 Cycloalkanes	0.61
166. Ethene	9.08
167. Propene (Propylene)	11.58
168. 1-Butene	10.29
169. C4 Terminal Alkenes	10.29
170. 1-Pentene	7.79
171. 3-Methyl-1-Butene	6.99
172. C5 Terminal Alkenes	7.79
173. 1-Hexene	6.17
174. 3,3-Dimethyl-1-Butene	6.06
175. 3-Methyl-1-Pentene	6.22
176. 4-Methyl-1-Pentene	6.26
177. C6 Terminal Alkenes	6.17
178. 1-Heptene	4.20
179. 1-Octene	3.45
180. C8 Terminal Alkenes	3.45
181. 1-Nonene	2.76
182. C9 Terminal Alkenes	2.76
183. 1-Decene	2.28
184. C10 Terminal Alkenes	2.28
185. 1-Undecene	1.95
186. C11 Terminal Alkenes	1.95
187. C12 Terminal Alkenes	1.72

188.	1-Dodecene	1.72
189.	1-Tridecene	1.55
190.	C13 Terminal Alkenes	1.55
191.	1-Tetradecene	1.41
192.	C14 Terminal Alkenes	1.41
193.	1-Pentadecene	1.27
194.	C15 Terminal Alkenes	1.27
195.	2-Methyl Pentene (Isobutene)	6.35
196.	2-Methyl-1-Butene	6.51
197.	2,3-Dimethyl-1-Butene	4.77
198.	2-Ethyl-1-Butene	5.04
199.	2-Methyl-1-Pentene	5.18
200.	2,3,3-Trimethyl-1-Butene	4.62
201.	C7 Terminal Alkenes	4.20
202.	3-Methyl-2-Isopropyl-1-Butene	3.29
203.	cis-2-Butene	13.22
204.	trans-2-Butene	13.91
205.	C4 Internal Alkenes	13.57
206.	2-Methyl-2-Butene	14.45
207.	cis-2-Pentene	10.24
208.	trans-2-Pentene	10.23
209.	2-Pentenes	10.23
210.	C5 Internal Alkenes	10.23
211.	2,3-Dimethyl-2-Butene	13.32
212.	2-Methyl-2-Pentene	12.28
213.	cis-2-Hexene	8.44
214.	cis-3-Hexene	8.22
215.	cis-3-Methyl-2-Pentene	12.84
216.	cis-3-Methyl-2-Hexene	13.38
217.	trans 3-Methyl-2-Hexene	14.17
218.	trans 4-Methyl-2-Hexene	7.88
219.	trans-2-Hexene	8.44
220.	trans-3-Hexene	8.16
221.	2-Hexenes	8.44
222.	C6 Internal Alkenes	8.44
223.	2,3-Dimethyl-2-Hexene	10.41
224.	cis-3-Heptene	6.96
225.	trans-4,4-Dimethyl-2-Pentene	6.99
226.	trans-2-Heptene	7.33
227.	trans-3-Heptene	6.96
228.	2-Heptenes	6.96
229.	C7 Internal Alkenes	6.96
230.	cis-4-Octene	5.94
231.	trans-2,2-Dimethyl-3-Hexene	5.97
232.	trans-2,5-Dimethyl-3-Hexene	5.44
233.	trans-3-Octene	6.13

234. trans-4-Octene	5.90
235. 3-Octenes	6.13
236. C8 Internal Alkenes	5.90
237. 2,4,4-Trimethyl-2-Pentene	8.52
238. 3-Nonenes	5.31
239. C9 Internal Alkenes	5.31
240. trans-4-Nonene	5.23
241. 3,4-Diethyl-2-Hexene	3.95
242. cis-5-Decene	4.89
243. trans-4-Decene	4.50
244. C10 3-Alkenes	4.50
245. C10 Internal Alkenes	4.50
246. trans-5-Undecene	4.23
247. C11 3-Alkenes	4.23
248. C11 Internal Alkenes	4.23
249. C12 2-Alkenes	3.75
250. C12 3-Alkenes	3.75
251. C12 Internal Alkenes	3.75
252. trans-5-Dodecene	3.74
253. trans-5-Tridecene	3.38
254. C13 3-Alkenes	3.38
255. C13 Internal Alkenes	3.38
256. trans-5-Tetradecene	3.08
257. C14 3-Alkenes	3.08
258. C14 Internal Alkenes	3.08
259. trans-5-Pentadecene	2.82
260. C15 3-Alkenes	2.82
261. C15 Internal Alkenes	2.82
262. C4 Alkenes	11.93
263. C5 Alkenes	9.01
264. C6 Alkenes	6.88
265. C7 Alkenes	5.76
266. C8 Alkenes	4.68
267. C9 Alkenes	4.03
268. C10 Alkenes	3.39
269. C11 Alkenes	3.09
270. C12 Alkenes	2.73
271. C13 Alkenes	2.46
272. C14 Alkenes	2.28
273. C15 Alkenes	2.06
274. Cyclopentene	7.38
275. 1-Methyl Cyclopentene	13.95
276. Cyclohexene	5.45
277. 1-Methyl Cyclohexene	7.81
278. 4-Methyl Cyclohexene	4.48
279. 1,2-Dimethyl Cyclohexene	6.77

280.	1,3-Butadiene	13.58
281.	Isoprene	10.69
282.	C6 Cyclic or Di-olefins	8.65
283.	C7 Cyclic or Di-olefins	7.49
284.	C8 Cyclic or Di-olefins	6.01
285.	C9 Cyclic or Di-olefins	5.40
286.	C10 Cyclic or Di-olefins	4.56
287.	C11 Cyclic or Di-olefins	4.29
288.	C12 Cyclic or Di-olefins	3.79
289.	C13 Cyclic or Di-olefins	3.42
290.	C14 Cyclic or Di-olefins	3.11
291.	C15 Cyclic or Di-olefins	2.85
292.	Cyclopentadiene	7.61
293.	3-Carene	3.21
294.	α -Pinene (Pine Oil)	4.29
295.	β -Pinene	3.28
296.	d-Limonene (Dipentene or Orange Terpene)	3.99
297.	Sabinene	3.67
298.	Terpene	3.79
299.	Styrene	1.95
300.	α -Methyl Styrene	1.72
301.	C9 Styrenes	1.72
302.	C10 Styrenes	1.53
303.	Benzene	0.81
304.	Toluene	3.97
305.	Ethyl Benzene	2.79
306.	Cumene (Isopropyl Benzene)	2.32
307.	n-Propyl Benzene	2.20
308.	C9 Monosubstituted Benzenes	2.20
309.	s-Butyl Benzene	1.97
310.	C10 Monosubstituted Benzenes	1.97
311.	n-Butyl Benzene	1.97
312.	C11 Monosubstituted Benzenes	1.78
313.	C12 Monosubstituted Benzenes	1.63
314.	C13 Monosubstituted Benzenes	1.50
315.	m-Xylene	10.61
316.	o-Xylene	7.49
317.	p-Xylene	4.25
318.	C8 Disubstituted Benzenes	7.48
319.	m-Ethyl Toluene	9.37
320.	p-Ethyl Toluene	3.75
321.	o-Ethyl Toluene	6.61
322.	C9 Disubstituted Benzenes	6.61
323.	o-Diethyl Benzene	5.92
324.	m-Diethyl Benzene	8.39
325.	p-Diethyl Benzene	3.36

326. C10 Disubstituted Benzenes	5.92
327. C11 Disubstituted Benzenes	5.35
328. C12 Disubstituted Benzenes	4.90
329. C13 Disubstituted Benzenes	4.50
330. Isomers of Ethylbenzene	5.16
331. 1,2,3-Trimethyl Benzene	11.26
332. 1,2,4-Trimethyl Benzene	7.18
333. 1,3,5-Trimethyl Benzene	11.22
334. C9 Trisubstituted Benzenes	9.90
335. Isomers of Propylbenzene	6.12
336. 1,2,3,5-Tetramethyl Benzene	8.25
337. C10 Tetrasubstituted Benzenes	8.86
338. C10 Trisubstituted Benzenes	8.86
339. Isomers of Butylbenzene	5.48
340. C11 Pentasubstituted Benzenes	8.03
341. C11 Tetrasubstituted Benzenes	8.03
342. C11 Trisubstituted Benzenes	8.03
343. Isomers of Pentylbenzene	4.96
344. C12 Pentasubstituted Benzenes	7.33
345. C12 Hexasubstituted Benzenes	7.33
346. C12 Tetrasubstituted Benzenes	7.33
347. C12 Trisubstituted Benzenes	7.33
348. Isomers of Hexylbenzene	4.53
349. C13 Trisubstituted Benzenes	6.75
350. Indene	3.21
351. Indane	3.17
352. Naphthalene	3.26
353. Tetralin	2.83
354. Methyl Indans	2.83
355. Methyl Naphthalenes	4.61
356. 1-Methyl Naphthalene	4.61
357. 2-Methyl Naphthalene	4.61
358. C11 Tetralin or Indane	2.56
359. 2,3-Dimethyl Naphthalene	5.54
360. C12 Disubstituted Naphthalenes	5.54
361. Dimethyl Naphthalenes	5.54
362. C12 Monosubstituted Naphthalenes	4.20
363. C12 Tetralin or Indane	2.33
364. C13 Disubstituted Naphthalenes	5.08
365. C13 Trisubstituted Naphthalenes	5.08
366. C13 Monosubstituted Naphthalenes	3.86
367. Acetylene	1.25
368. Methyl Acetylene	6.45
369. 2-Butyne	16.33
370. Ethyl Acetylene	6.20
371. Methanol	0.71

372. Ethanol	1.69
373. Isopropanol (2-Propanol or Isopropyl Alcohol)	0.71
374. n-Propanol (n-Propyl Alcohol)	2.74
375. Isobutanol (Isobutyl Alcohol)	2.24
376. 1-Butanol (n-Butyl Alcohol)	3.34
377. 2-Butanol (s-Butyl Alcohol)	1.60
378. t-Butyl Alcohol	0.45
379. Cyclopentanol	1.96
380. 2-Pentanol	1.74
381. 3-Pentanol	1.73
382. n-Pentanol (Amyl Alcohol)	3.35
383. Isoamyl Alcohol (3-Methyl-1-Butanol)	2.73
384. 2-Methyl-1-Butanol	2.60
385. Cyclohexanol	2.25
386. 1-Hexanol	2.74
387. 2-Hexanol	2.46
388. 4-Methyl-2-Pentanol (Methyl Isobutyl Carbinol)	2.89
389. 1-Heptanol	2.21
390. Dimethylpentanol (2,3-Dimethyl-1-Pentanol)	2.51
391. 1-Octanol	2.01
392. 2-Ethyl-1-Hexanol (Ethyl Hexyl Alcohol)	2.20
393. 2-Octanol	2.16
394. 3-Octanol	2.57
395. 4-Octanol	3.07
396. 5-Methyl-1-Heptanol	1.95
397. Trimethylcyclohexanol	2.17
398. Dimethylheptanol (2,6-Dimethyl-2-Heptanol)	1.07
399. 2,6-Dimethyl-4-Heptanol	2.37
400. Menthol	1.70
401. Isodecyl Alcohol (8-Methyl-1-Nonanol)	1.23
402. 1-Decanol	1.22
403. 3,7-Dimethyl-1-Octanol	1.42
404. Trimethylnonanolthreoerythro; 2,6,8-Trimethyl-4-Nonanol	1.55
405. Ethylene Glycol	3.36
406. Propylene Glycol	2.75
407. 1,2-Butanediol	2.21
408. Glycerol (1,2,3-Propanetriol)	3.27
409. 1,4-Butanediol	3.22
410. Pentaerythritol	2.42
411. 1,2-Dihydroxy Hexane	2.75
412. 2-Methyl-2,4-Pentanediol	1.04
413. 2-Ethyl-1,3-Hexanediol	2.62
414. Dimethyl Ether	0.93
415. Trimethylene Oxide	5.22
416. 1,3-Dioxolane	5.47
417. Dimethoxymethane	1.04

418. Tetrahydrofuran	4.95
419. Diethyl Ether	4.01
420. 1,4-Dioxane	2.71
421. Alpha-Methyltetrahydrofuran	4.62
422. Tetrahydropyran	3.81
423. Ethyl Isopropyl Ether	3.86
424. Methyl n-Butyl Ether	3.66
425. Methyl t-Butyl Ether	0.78
426. 2,2-Dimethoxypropane	0.52
427. Di n-Propyl Ether	3.24
428. Ethyl n-Butyl Ether	3.86
429. Ethyl t-Butyl Ether	2.11
430. Methyl t-Amyl Ether	2.14
431. Di-isopropyl Ether	3.56
432. Ethylene Glycol Diethyl Ether; 1,2-Diethoxyethane	2.84
433. Acetal (1,1-Diethoxyethane)	3.68
434. 4,4-Dimethyl-3-Oxahexane	2.03
435. 2-Butyl Tetrahydrofuran	2.53
436. Di-Isobutyl Ether	1.29
437. Di-n-butyl Ether	3.17
438. 2-Methoxy-1-(2-Methoxy-1-Methylethoxy)-Propane	2.09
439. Di-n-Pentyl Ether	2.64
440. Ethylene Glycol Monomethyl Ether (2-Methoxyethanol)	2.98
441. Propylene Glycol Monomethyl Ether (1-Methoxy-2-Propanol)	2.62
442. 2-Ethoxyethanol	3.78
443. 2-Methoxy-1-Propanol	3.01
444. 3-Methoxy-1-Propanol	4.01
445. Diethylene Glycol	3.55
446. Tetrahydro-2-Furanmethanol	3.54
447. Propylene Glycol Monoethyl Ether (1-Ethoxy-2-Propanol)	3.25
448. Ethylene Glycol Monopropyl Ether (2-Propoxyethanol)	3.52
449. 3-Ethoxy-1-Propanol	4.24
450. 3-Methoxy-1-Butanol	0.97
451. Diethylene Glycol Methyl Ether [2-(2-Methoxyethoxy) Ethanol]	2.90
452. Propylene Glycol Monopropyl Ether (1-Propoxy-2-Propanol)	2.86
453. Ethylene Glycol Monobutyl Ether [2-Butoxyethanol]	2.90
454. 3-Methoxy-3-Methyl-Butanol	1.74
455. n-Propoxypropanol	3.84
456. 2-(2-Ethoxyethoxy) Ethanol	3.19
457. Dipropylene Glycol	2.48
458. Triethylene Glycol	3.41
459. Propylene Glycol t-Butyl Ether (1-tert-Butoxy-2-Propanol)	1.71
460. 2-tert-Butoxy-1-Propanol	1.81
461. n-Butoxy-2-Propanol	2.70
462. Dipropylene Glycol Methyl Ether Isomer (1-Methoxy-2-[2-Hydroxypropoxy]-Propane)	2.21

463. Dipropylene Glycol Methyl Ether Isomer (2-[2-Methoxypropoxy]-1-Propanol)	2.70
464. 2-Hexyloxyethanol	2.45
465. 2-(2-Propoxyethoxy)	3.00
466. 2,2,4-Trimethyl-1,3-Pentanediol	1.74
467. 2-(2-Butoxyethoxy)-Ethanol	2.87
468. 2-[2-(2-Methoxyethoxy) Ethoxy] Ethanol	2.62
469. Dipropylene Glycol Ethyl Ether	2.75
470. Ethylene Glycol 2-Ethylhexyl Ether [2-(2-Ethylhexyloxy) Ethanol]	1.71
471. 2-[2-(2-Ethoxyethoxy) Ethoxy] Ethanol	2.66
472. Tetraethylene Glycol	2.84
473. 1-(Butoxyethoxy)-2-Propanol	2.08
474. 2-(2-Hexyloxyethoxy) Ethanol	2.03
475. Glycol Ether dpnb (1-(2-Butoxy-1-Methylethoxy)-2-Propanol)	1.96
476. 2-[2-(2-Propoxyethoxy) Ethoxy] Ethanol	2.46
477. 2-[2-(2-Butoxyethoxy) Ethoxy] Ethanol	2.24
478. Tripropylene Glycol Monomethyl Ether	1.90
479. 2,5,8,11-Tetraoxatridecan-13-ol	2.15
480. 3,6,9,12-Tetraoxahexadecan-1-ol	1.90
481. Cumene Hydroperoxide (1-Methyl-1-Phenylethylhydroperoxide)*	12.61
482. Methyl Formate	0.06
483. Ethyl Formate	0.52
484. Methyl Acetate	0.07
485. gamma- Butyrolactone	1.15
486. Ethyl Acetate	0.64
487. Methyl Propionate	0.71
488. n-Propyl Formate	0.93
489. Isopropyl Formate	0.42
490. Ethyl Propionate	0.79
491. Isopropyl Acetate	1.12
492. Methyl Butyrate	1.18
493. Methyl Isobutyrate	0.70
494. n-Butyl Formate	0.95
495. Propyl Acetate	0.87
496. Ethyl Butyrate	1.25
497. Isobutyl Acetate	0.67
498. Methyl Pivalate (2,2-Dimethyl Propanoic Acid Methyl Ester)	0.39
499. n-Butyl Acetate	0.89
500. n-Propyl Propionate	0.93
501. s-Butyl Acetate	1.43
502. t-Butyl Acetate	0.20
503. Butyl Propionate	0.89
504. Amyl Acetate	0.96
505. n-Propyl Butyrate	1.17
506. Isoamyl Acetate (3-Methylbutyl Acetate)	1.18
507. 2-Methyl-1-Butyl Acetate	1.17

508. EEP Solvent (Ethyl 3-Ethoxy Propionate)	3.61
509. 2,3-Dimethylbutyl Acetate	0.84
510. 2-Methylpentyl Acetate	1.11
511. 3-Methylpentyl Acetate	1.31
512. 4-Methylpentyl Acetate	0.92
513. Isobutyl Isobutyrate	0.61
514. n-Butyl Butyrate	1.12
515. n-Hexyl Acetate (Hexyl Acetate)	0.87
516. Methyl Amyl Acetate (4-Methyl-2-PentanolAcetate)	1.46
517. n-Pentyl Propionate	0.79
518. 2,4-Dimethylpentyl Acetate	0.98
519. 2-Methylhexyl Acetate	0.89
520. 3-Ethylpentyl Acetate	1.24
521. 3-Methylhexyl Acetate	1.01
522. 4-Methylhexyl Acetate	0.91
523. 5-Methylhexyl Acetate	0.79
524. Isoamyl Isobutyrate	0.89
525. n-Heptyl Acetate (Heptyl Acetate)	0.73
526. 2,4-Dimethylhexyl Acetate	0.93
527. 2-Ethyl-Hexyl Acetate	0.79
528. 3,4-Dimethylhexyl Acetate	1.16
529. 3,5-Dimethylhexyl Acetate	1.09
530. 3-Ethylhexyl Acetate	1.03
531. 3-Methylheptyl Acetate	0.76
532. 4,5-Dimethylhexyl Acetate	0.86
533. 4-Methylheptyl Acetate	0.72
534. 5-Methylheptyl Acetate	0.73
535. n-Octyl Acetate	0.64
536. 2,3,5-Trimethylhexyl Acetate	0.86
537. 2,3-Dimethylheptyl Acetate	0.84
538. 2,4-Dimethylheptyl Acetate	0.88
539. 2,5-Dimethylheptyl Acetate	0.86
540. 2-Methyloctyl Acetate	0.63
541. 3,5-Dimethylheptyl Acetate	1.01
542. 3,6-Dimethylheptyl Acetate	0.87
543. 3-Ethylheptyl Acetate	0.71
544. 4,5-Dimethylheptyl Acetate	0.96
545. 4,6-Dimethylheptyl Acetate	0.83
546. 4-Methyloctyl Acetate	0.68
547. 5-Methyloctyl Acetate	0.67
548. n-Nonyl Acetate	0.58
549. 3,6-Dimethyloctyl Acetate	0.88
550. 3-Isopropylheptyl Acetate	0.71
551. 4,6-Dimethyloctyl Acetate	0.85
552. 3,5,7-Trimethyloctyl Acetate	0.83
553. 3-Ethyl-6-Methyloctyl Acetate	0.80

554. 4,7-Dimethylnonyl Acetate	0.64
555. Methyl Dodecanoate (Methyl Laurate)	0.53
556. 2,3,5,7-Tetramethyloctyl Acetate	0.74
557. 3,5,7-Trimethylnonyl Acetate	0.76
558. 3,6,8-Trimethylnonyl Acetate	0.72
559. 2,4,6,8-Tetramethylnonyl Acetate	0.63
560. 3-Ethyl-6,7-Dimethylnonyl Acetate	0.76
561. 4,7,9-Trimethyldecyl Acetate	0.55
562. Methyl Myristate (Methyl Tetradecanoate)	0.47
563. 2,3,5,6,8-Pentaamethylnonyl Acetate	0.74
564. 3,5,7,9-Tetramethyldecyl Acetate	0.58
565. 5-Ethyl-3,6,8-Trimethylnonyl Acetate	0.77
566. Dimethyl Carbonate	0.06
567. Propylene Carbonate (4-Methyl-1,3-Dioxolan-2-one)	0.25
568. Methyl Lactate	2.75
569. 2-Methoxyethyl Acetate	1.18
570. Ethyl Lactate	2.71
571. Methyl Isopropyl Carbonate	0.69
572. Propylene Glycol Monomethyl Ether Acetate (1-Methoxy-2-Propyl Acetate)	1.71
573. 2-Ethoxyethyl Acetate	1.90
574. 2-Methoxy-1-Propyl Acetate	1.12
575. Methoxypropanol Acetate	1.97
576. Dimethyl Succinate	0.23
577. Ethylene Glycol Diacetate	0.72
578. 1,2-Propylene Glycol Diacetate	0.94
579. Diisopropyl Carbonate	1.04
580. Dimethyl Glutarate	0.51
581. Ethylene Glycol Monobutyl Ether Acetate (2-Butoxyethyl Acetate)	1.67
582. Dimethyl Adipate	1.95
583. 2-(2-Ethoxyethoxy) Ethyl Acetate	1.50
584. Dipropylene Glycol n-Propyl Ether Isomer #1	2.13
585. Dipropylene Glycol Methyl Ether Acetate Isomer #1	1.41
586. Dipropylene Glycol Methyl Ether Acetate Isomer #2	1.58
587. Dipropylene Glycol Methyl Ether Acetate	1.49
588. Glyceryl Triacetate	0.57
589. 2-(2-Butoxyethoxy) Ethyl Acetate	1.38
590. Substituted C7 Ester (C12)	0.92
591. 1-Hydroxy-2,2,4-Trimethylpentyl-3-Isobutyrate	0.92
592. 3-Hydroxy-2,2,4-Trimethylpentyl-1-Isobutyrate	0.88
593. Hydroxy-2,2,4-Trimethylpentyl Isobutyrate Isomers (2,2,4-Trimethyl-1,3-Pentanediol Monoisobutyrate)	0.89
594. Substituted C9 Ester (C12)	0.89
595. Dimethyl Sebacate	0.48
596. Diisopropyl Adipate	1.42
597. Ethylene Oxide	0.04

598. Propylene Oxide	0.32
599. 1,2-Epoxybutane (Ethyl Oxirane)	1.02
600. Formic Acid	0.08
601. Acetic Acid	0.50
602. Glycolic Acid (Hydroxyacetic Acid)	2.67
603. Peracetic Acid (Peroxyacetic Acid)*	12.62
604. Acrylic Acid	11.66
605. Propionic Acid	0.79
606. Methacrylic Acid	18.78
607. Isobutyric Acid	1.22
608. Butanoic Acid	1.78
609. Malic Acid	7.51
610. 3-Methylbutanoic Acid	4.26
611. Adipic Acid	3.37
612. 2-Ethyl Hexanoic Acid	3.49
613. Methyl Acrylate	12.24
614. Vinyl Acetate	3.26
615. 2-Methyl-2-Butene-3-ol (1,2-Dimethylpropyl-1-en-1-ol)	5.12
616. Ethyl Acrylate	8.78
617. Methyl Methacrylate	15.84
618. Hydroxypropyl Acrylate	5.56
619. n-Butyl Acrylate	5.52
620. n-Butyl Acrylate	5.52
621. Isobutyl Acrylate	5.05
622. Butyl Methacrylate	9.09
623. Isobutyl Methacrylate	8.99
624. Isobornyl Methacrylate*	8.64
625. a-Terpineol	5.16
626. 2-Ethyl-Hexyl Acrylate	2.42
627. Furan	16.54
628. Formaldehyde	8.97
629. Acetaldehyde	6.84
630. Propionaldehyde	7.89
631. 2-Methylpropanal	5.87
632. Butanal	6.74
633. C4 Aldehydes	6.74
634. 2,2-Dimethylpropanal (Pivaldehyde)	5.40
635. 3-Methylbutanal (Isovaleraldehyde)	5.52
636. Pentanal (Valeraldehyde)	5.76
637. C5 Aldehydes	5.76
638. Glutaraldehyde	4.79
639. Hexanal	4.98
640. C6 Aldehydes	4.98
641. Heptanal	4.23
642. C7 Aldehydes	4.23
643. 2-Methyl-Hexanal	3.97

644. Octanal	3.65
645. C8 Aldehydes	3.65
646. Glyoxal	14.22
647. Methyl Glyoxal	16.21
648. Acrolein	7.60
649. Crotonaldehyde	10.07
650. Methacrolein	6.23
651. Hydroxy Methacrolein	6.61
652. Benzaldehyde	0.00
653. Toluialdehyde	0.00
654. Acetone	0.43
655. Cyclobutanone	0.68
656. Methyl Ethyl Ketone (2-Butanone)	1.49
657. Cyclopentanone	1.43
658. C5 Cyclic Ketones	1.43
659. Methyl Propyl Ketone (2-Pentanone)	3.07
660. 3-Pentanone	1.45
661. C5 Ketones	3.07
662. Methyl Isopropyl Ketone	1.64
663. 2,4-Pentanedione	1.02
664. Cyclohexanone	1.61
665. C6 Cyclic Ketones	1.61
666. Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	4.31
667. Methyl n-Butyl Ketone (2-Hexanone)	3.55
668. Methyl t-Butyl Ketone	0.78
669. C6 Ketones	3.55
670. C7 Cyclic Ketones	1.41
671. Methyl Amyl Ketone (2-Heptanone)	2.80
672. 2-Methyl-3-Hexanone	1.79
673. Di-Isopropyl Ketone	1.63
674. C7 Ketones	2.80
675. 3-Methyl-2-Hexanone	2.81
676. Methyl Isoamyl Ketone (5-Methyl-2-Hexanone)	2.10
677. C8 Cyclic Ketones	1.25
678. 2-Octanone	1.66
679. C8 Ketones	1.66
680. C9 Cyclic Ketones	1.13
681. 2-Propyl Cyclohexanone	1.71
682. 4-Propyl Cyclohexanone	2.08
683. 2-Nonanone	1.30
684. Di-Isobutyl Ketone (2,6-Dimethyl-4-Heptanone)	2.94
685. C9 Ketones	1.30
686. C10 Cyclic Ketones	1.02
687. 2-Decanone	1.06
688. C10 Ketones	1.06
689. 2,6,8-Trimethyl-4-Nonanone; Isobutyl Heptyl Ketone	1.86

690. Biacetyl	20.73
691. Methylvinyl ketone	8.73
692. Mesityl Oxide (2-Methyl-2-Penten-4-one)	17.37
693. Isophorone (3,5,5-Trimethyl-2-Cyclohexenone)	10.58
694. 1-Nonene-4-one	3.39
695. Hydroxy Acetone	3.08
696. Dihydroxyacetone	4.02
697. Methoxy Acetone	2.14
698. Diacetone Alcohol (4-Hydroxy-4-Methyl-2-Pentanone)	0.68
699. Phenol	1.82
700. C7 Alkyl Phenols	2.34
701. m-Cresol	2.34
702. p-Cresol	2.34
703. o-Cresol	2.34
704. C8 Alkyl Phenols	2.07
705. C9 Alkyl Phenols	1.86
706. C10 Alkyl Phenols	1.68
707. C11 Alkyl Phenols	1.54
708. C12 Alkyl Phenols	1.42
709. 2-Phenoxyethanol; Ethylene Glycol Phenyl Ether	3.61
710. 1-Phenoxy-2-Propanol	1.73
711. Nitrobenzene	0.07
712. Para Toluene Isocyanate	0.93
713. Toluene Diisocyanate (Mixed Isomers)	0.00
714. Methylene Diphenylene Diisocyanate	0.79
715. N-Methyl Acetamide*	19.70
716. Dimethyl Amine	9.37
717. Ethyl Amine	7.80
718. Trimethyl Amine	7.06
719. Triethyl Amine*	16.60
720. Diethylenetriamine*	13.03
721. Ethanolamine	5.97
722. Dimethylaminoethanol	4.76
723. Monoisopropanol Amine (1-Amino-2-Propanol)*	13.42
724. 2-Amino-2-Methyl-1-Propanol*	15.08
725. Diethanol Amine	4.05
726. Triethanolamine	2.76
727. Methyl Pyrrolidone (N-Methyl-2-Pyrrolidone)	2.56
728. Morpholine*	15.43
729. Nitroethane*	12.79
730. Nitromethane*	7.86
731. 1-Nitropropane*	16.16
732. 2-Nitropropane*	16.16
733. Dexpanthenol (Pantotherylol)*	9.35
734. Methyl Ethyl Ketoxime (Ethyl Methyl Ketone Oxime)*	22.04
735. Hydroxyethylethylene Urea*	14.75

736. Methyl Chloride	0.03
737. Methylene Chloride (Dichloromethane)	0.07
738. Methyl Bromide	0.02
739. Chloroform	0.03
740. Carbon Tetrachloride	0.00
741. Methylene Bromide	0.00
742. Vinyl Chloride	2.92
743. Ethyl Chloride	0.25
744. 1,1-Dichloroethane	0.10
745. 1,2-Dichloroethane	0.10
746. Ethyl Bromide	0.11
747. 1,1,1-Trichloroethane	0.00
748. 1,1,2-Trichloroethane	0.06
749. 1,2-Dibromoethane	0.05
750. n-Propyl Bromide	0.35
751. n-Butyl Bromide	0.60
752. trans-1,2-Dichloroethene	0.81
753. Trichloroethylene	0.60
754. Perchloroethylene	0.04
755. 2-(Chloro-Methyl)-3-Chloro Propene	1.13
756. Monochlorobenzene	0.36
757. p-Dichlorobenzene	0.20
758. Benzotrifluoride	0.26
759. PCBTF (p-Trifluoromethyl-Cl-Benzene)	0.11
760. HFC-134a (1,1,1,2-Tetrafluoroethane)*	0.00
761. HFC-152a (1,1-Difluoroethane)*	0.00
762. Dimethyl Sulfoxide	6.90
763. Unspeciated C6 Alkanes	1.48
764. Unspeciated C7 Alkanes	1.79
765. Unspeciated C8 Alkanes	1.64
766. Unspeciated C9 Alkanes	2.13
767. Unspeciated C10 Alkanes	1.16
768. Unspeciated C11 Alkanes	0.90
769. Unspeciated C12 Alkanes	0.81
770. Unspeciated C13 Alkanes	0.73
771. Unspeciated C14 Alkanes	0.67
772. Unspeciated C15 Alkanes	0.61
773. Unspeciated C16 Alkanes	0.55
774. Unspeciated C17 Alkanes	0.52
775. Unspeciated C18 Alkanes	0.49
776. Unspeciated C10 Aromatics	5.48
777. Unspeciated C11 Aromatics	4.96
778. Unspeciated C12 Aromatics	4.53
779. Base ROG Mixture	3.71
780. Alkane, Mixed – Predominantly (Minimally 94%) C13-14	0.67
781. Oxo-Hexyl Acetate	1.03

782. Oxo-Heptyl Acetate	0.97
783. Oxo-Octyl Acetate	0.96
784. Oxo-Nonyl Acetate	0.85
785. Oxo-Decyl Acetate	0.83
786. Oxo-Dodecyl Acetate	0.72
787. Oxo-Tridecyl Acetate	0.67

* ULMIR (as defined in Section 94521(a)(71), title 17, California Code of Regulations).

APPENDIX B MIR VALUES FOR HYDROCARBON SOLVENTS

(a) Aliphatic Hydrocarbon Solvents

Bin	Average Boiling Boiling Point*** (degrees F)	Criteria	MIR Value
1	80-205	Alkanes (< 2% Aromatics)	2.08
2	80-205	N- & Iso-Alkanes (≥ 90% and < 2% Aromatics)	1.59
3	80-205	Cyclo-Alkanes (≥ 90% and < 2% Aromatics)	2.52
4	80-205	Alkanes (2 to < 8% Aromatics)	2.24
5	80-205	Alkanes (8 to 22% Aromatics)	2.56
6	>205-340	Alkanes (< 2% Aromatics)	1.41
7	>205-340	N- & Iso-Alkanes (≥ 90% and < 2% Aromatics)	1.17
8	>205-340	Cyclo-Alkanes (≥ 90% and < 2% Aromatics)	1.65
9	>205-340	Alkanes (2 to < 8% Aromatics)	1.62
10	>205-340	Alkanes (8 to 22% Aromatics)	2.03
11	>340-460	Alkanes (< 2% Aromatics)	0.91
12	>340-460	N- & Iso-Alkanes (≥ 90% and < 2%	

		Aromatics)	0.81
13	>340-460	Cyclo-Alkanes ($\geq 90\%$ and $< 2\%$ Aromatics)	1.01
14	>340-460	Alkanes (2 to $< 8\%$ Aromatics)	1.21
15	>340-460	Alkanes (8 to 22% Aromatics)	1.82
16	>460-580	Alkanes ($< 2\%$ Aromatics)	0.57
17	>460-580	N- & Iso-Alkanes ($\geq 90\%$ and $< 2\%$ Aromatics)	0.51
18	>460-580	Cyclo-Alkanes ($\geq 90\%$ and $< 2\%$ Aromatics)	0.63
19	>460-580	Alkanes (2 to $< 8\%$ Aromatics)	0.88
20	>460-580	Alkanes (8 to 22% Aromatics)	1.49

*** Average Boiling Point = (Initial Boiling Point + Dry Point) / 2

(b) Aromatic Hydrocarbon Solvents

Bin	Boiling Range (degrees F)	Criteria	MIR Value
21	280-290	Aromatic Content ($\geq 98\%$)	7.37
22	320-350	Aromatic Content ($\geq 98\%$)	7.51
23	355-420	Aromatic Content ($\geq 98\%$)	8.07
24	450-535	Aromatic Content ($\geq 98\%$)	5.00

* ULMIR (as defined in Section 94521(a)(71), title 17, California Code of Regulations).

TECHNICAL SUPPORT DOCUMENT

for

**CONTROL OF VOLATILE ORGANIC MATERIAL
EMISSIONS**

from

**CONSUMER AND COMMERCIAL PRODUCTS,
ARCHITECTURAL AND INDUSTRIAL
MAINTENANCE COATINGS, AND AEROSOL
COATINGS**

AQPSTR 07-02

November 2007

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST
P.O. BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276**

Table of Contents

List of Acronyms	2
Tables	3
1.0 Introduction	4
2.0 Consumer Products	8
2.1 Description of Sources and Emissions.....	8
2.2 Emissions in Illinois from Regulated Products.....	9
2.3 Technical Feasibility of Controls.....	15
2.4 Flexibility in Compliance Measures.....	19
2.5 Economic Reasonableness.....	20
2.6 Cost Effectiveness of Controls.....	21
2.7 Reduction of VOM Emissions in Illinois.....	29
2.8 Affected Sources and Compliance Measures.....	33
3.0 Architectural and Industrial Maintenance Coatings	34
3.1 Description of Sources and Emissions.....	34
3.2 Emissions in Illinois from Regulated Products.....	35
3.3 Technical Feasibility of Controls.....	39
3.4 Economic Reasonableness.....	41
3.5 Cost Effectiveness of Controls.....	40
3.6 Reduction of VOM Emissions in Illinois.....	45
3.7 Affected Sources and Compliance Measures.....	45
4.0 Aerosol Coatings	46
4.1 Description of Sources and Emissions.....	46
4.2 Emissions in Illinois from Regulated Products.....	47
4.3 Technical Feasibility of Controls.....	50
4.4 Flexibility in Compliance Measures.....	52
4.5 Economic Reasonableness.....	52
4.6 Cost Effectiveness of Controls.....	56
4.7 Reduction of VOM Emissions in Illinois.....	57
4.8 Affected Sources and Compliance Measures.....	58
5.0 Summary	60
6.0 References	62
Appendix A: Potentially Affected Manufacturers in Illinois	65

List of Acronyms

ACP	Alternative Control Plan
AIM	Architectural and Industrial Maintenance
CAA	Clean Air Act
CARB	California Air Resources Board
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CRF	Cost Recovery Factor
ERWA	Emission Reduction-Weighted Average
HVOM	High Volatility Organic Materials
IEPA	Illinois Environmental Protection Agency
IPP	Innovative Products Provision
LADCO	Lake Michigan Air Directors Consortium
MIR	Maximum Incremental Reactivity
MRPO	Midwest Regional Planning Organization
MVOM	Medium Volatility Organic Materials
NAA	Non Attainment Area
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen Oxides
OTC	Ozone Transport Commission
PSU	Primers, Sealers, and Undercoaters
PWMIR	Product Weighted Maximum Incremental Reactivity
SCM	Suggested Control Measures
SIP	State Implementation Plan
SWA	Sales Weighted Average
Tpd	Tons Per Day
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material

Tables

Table 2.2.1	Proposed Regulated Product Categories and Limits.....	9
Table 2.2.2	Consumer Product Emission Factors by Category.....	15
Table 2.2.3	VOM Emissions Due to Consumer and Commercial Products During the Ozone Season.....	16
Table 2.6.1	Cost Effectiveness Estimates for Consumer Products.....	22
Table 2.7.1	Estimated VOM Emission Reductions for Consumer Products....	30
Table 3.2.1	AIM Coating Categories and VOM Limits.....	35
Table 3.2.2	VOM Emissions Due to AIM Coatings During the Ozone Season ..	38
Table 3.5.1	Producer Cost Per Gallon for AIM Coatings.....	42
Table 3.5.2	Estimated Cost Effectiveness for AIM Coating Control.....	43
Table 4.2.1	Aerosol Coating Categories and PWMIR Limits.....	47
Table 4.2.2	VOM Emissions Due to Aerosol Coating Products.....	50
Table 4.5.1	Cost Estimates Per Can for Aerosol Coating Products.....	55

1.0 Introduction

Pursuant to Section 109 of the Clean Air Act, as amended in 1990, and to protect the public health, the United States Environmental Protection Agency (“USEPA”) revised the national ambient air quality standard (“NAAQS”) for ozone. Effective July 17, 1997 the USEPA lowered the NAAQS for ozone to 0.080 parts per million from the previous 0.120 parts per million. In addition, the time period used for measuring compliance was increased from the previous 1 hour to 8 hours. In Illinois, Chicago and the Metro East St. Louis area have been designated as moderate ozone nonattainment areas under the new NAAQS. Included in the Chicago nonattainment area (“NAA”) are Cook, DuPage, Kane, Lake, McHenry, and Will counties, as well as the Aux Sable Township and Goose Lake Township in Grundy County, and Oswego Township in Kendall County. The Metro East St. Louis NAA is comprised of Jersey, Madison, Monroe, and St. Clair counties.

The precursors to the formation of ozone include volatile organic materials (“VOM”), oxides of nitrogen (“NOx”) and carbon monoxide (“CO”). Ozone formation is most active during the summer months because the reactions are dependent on direct sunlight and high ambient temperatures. Ozone is a powerful oxidant and, as such, reacts readily with a wide range of substances. In humans, ozone is an irritant to the respiratory system and may damage lung and other tissues. This damage can lead to impaired breathing and reduced immunity to disease for people in good health. The effects may be more severe for young children, the elderly, and people with preexisting respiratory diseases such as

asthma, bronchitis, and emphysema. Ozone oxidation can also damage plant tissue, reducing the yield of some crops, and damage certain other materials such as rubber.

In 1997, the USEPA revised the NAAQS for ozone to reflect improved scientific understanding of the health impacts of the pollutant. The change from the previous 1 hour standard to the 8 hour standard is based on extensive air pollution research that indicated ozone is more harmful when a person is exposed over a longer period of time even if the ozone concentration is lower. As such, the revised 8 hour standard is more stringent than the previous 1 hour standard. The 8 hour standard had an effective date of June 15, 2004, with the 1 hour standard being revoked one year later on June 15, 2005 (40 CFR Part 81).

To protect the public health of the citizens of the State of Illinois, and in an effort to attain the 8 hour ozone NAAQS by 2010 as required by Section 181(a) of the Clean Air Act, the Illinois Environmental Protection Agency (“Illinois EPA”) is proposing to reduce VOM emissions from consumer and commercial products, architectural and industrial maintenance (“AIM”) coatings, and aerosol coatings.

Consumer and commercial products are currently regulated by the USEPA by the consumer and commercial products rule promulgated on Sept. 11, 1998, and codified at 40 CFR Part 59 Subpart D. This national rule currently limits the VOM content of 24 product categories. VOM emissions from these categories are estimated to have been reduced by 20 percent from uncontrolled levels. However, the emissions due to the 24

categories currently being regulated account for only 48 percent of the consumer and commercial products emission inventory³.

Architectural and industrial maintenance coatings are currently regulated by the USEPA by the AIM coatings rule promulgated on Sept. 11, 1998, and codified at 40 CFR Part 59 Subpart D. This national rule includes container labeling requirements and is estimated to reduce VOM emissions from AIM coatings by approximately 20% from uncontrolled levels⁹.

Aerosol Coatings are considered to be a Group III Consumer Product, and accordingly are also regulated by 40 CFR Part 59 Subpart D. Currently, federal and Illinois consumer product regulations do not deal specifically with the reactivity of various organic compounds. The proposed rule for aerosol coatings limits the content of various VOM compounds based upon their reactivity and their likelihood to form ground level ozone. This proposed rule is based upon the California Air Resources Board's ("CARB") "Regulation for Reducing the Ozone Formed from Aerosol Coating Product Emissions"¹¹ that has been employing a reactivity based standard for all aerosol coatings since January 1, 2003.

Further reductions in the aforementioned categories will be beneficial to the environment and are considered to be both economically reasonable and technologically feasible. It is for these reasons that the Illinois EPA has proposed this rule controlling consumer and commercial products, AIM coatings, and aerosol coatings.

In evaluating the potential reductions of VOM emissions from consumer and commercial products, architectural and industrial maintenance coatings, and aerosol coatings, Illinois EPA has reviewed the findings of several groups researching the issue. The groups are MACTEC, an environmental firm that is under contract with the Lake Michigan Air Directors Consortium (“LADCO”); the Ozone Transport Commission (“OTC”), an organization in the eastern United States created under the Clean Air Act; and the California Air Resources Board (“CARB”). The OTC and CARB have drafted candidate measures for the reduction of VOM that go beyond the current federal VOM limits, and MACTEC, CARB, and USEPA have projected the potential reductions and the associated cost of additional control through these measures.

This technical support document is based on the review and application of the aforementioned organizations, and addresses the economic reasonableness and technological feasibility of further regulation to reduce VOM emissions from consumer and commercial products, AIM coatings, and aerosol coating products by limiting the solvent content in these products, or the amount of ozone formed when these products are used. It is the position of the Illinois EPA that further regulation of these source categories is an integral part of its state implementation plan (“SIP”) for achieving attainment of the NAAQS in Illinois.

2.0 Consumer and Commercial Products

2.1 Description of Sources and Emissions

As defined by the USEPA in the federal rule, a consumer product is any household or institutional product (including paints, coatings, and solvents), or substance, or article (including any container or packaging) held by any person, the use, consumption, storage, disposal, destruction, or decomposition of which may result in the release of VOC (40 CFR § 59.202). Consumer and commercial products are chemically formulated products used by household and institutional consumers including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings. The description consumer and commercial products also refers to aerosol adhesives, including aerosol adhesives used for consumer, industrial, and commercial uses.

Consumer and commercial products are sold to retail customers for personal, household, or automotive use, along with products marketed by wholesale distributors for use in commercial or industrial settings such as beauty shops, schools, and hospitals. This source category description includes hundreds of products sold to individuals such as personal care products, household products, automotive aftermarket products, adhesives and sealants, insecticides, coatings and a range of other miscellaneous products.