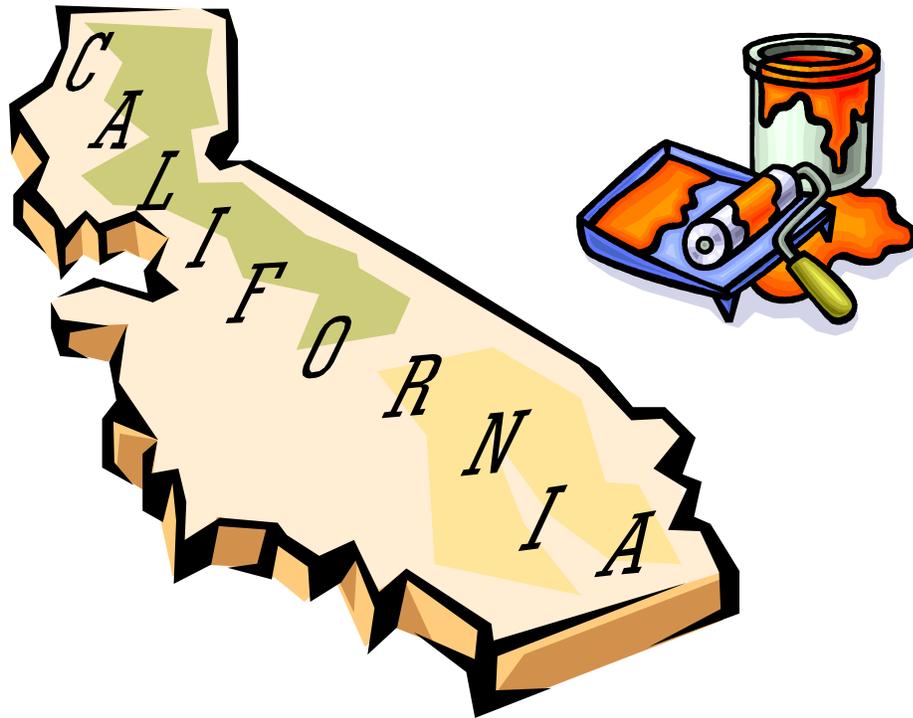


# 2005 Architectural Coatings Survey



**PURSUANT TO CALIFORNIA STATE LAW, COMPLETION AND SUBMITTAL OF  
THESE FORMS ARE MANDATORY**

**DUE DATE: SEPTEMBER 1, 2005**

Please return the completed survey to the following address:

Regular Mail

California Air Resources Board  
P.O. Box 2815  
Sacramento, CA 95812  
ATTN: SSD / Measures Assessment Branch  
Architectural Coatings Survey

Overnight

California EPA Headquarters Building  
Air Resources Board (6<sup>th</sup> Floor)  
1001 I Street  
Sacramento, CA 95814  
ATTN: SSD / Measures Assessment Branch  
Architectural Coatings Survey

California Environmental Protection Agency

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**Air Resources Board**

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### SUBMITTAL OF FORMS

Please return the completed survey to the following address:

#### Regular Mail

California Air Resources Board  
P.O. Box 2815  
Sacramento, CA 95812  
ATTN: SSD / Measures Assessment Branch  
Architectural Coatings Survey

#### Overnight

California EPA Headquarters Building  
Air Resources Board (6<sup>th</sup> Floor)  
1001 I Street  
Sacramento, CA 95814  
ATTN: SSD / Measures Assessment Branch  
Architectural Coatings Survey

### ELECTRONIC SUBMITTAL OPTIONS

Electronic submittal options are available. Details can be obtained by contacting the ARB or by visiting our web site at “[www.arb.ca.gov/coatings/arch/survey/2005/survey.htm](http://www.arb.ca.gov/coatings/arch/survey/2005/survey.htm).” Additional survey packages can also be downloaded from this site.

### QUESTIONS

If you have any questions or other requests please contact any of the following staff:

Name	Phone	Email
Jim Nyarady, Manager	916-322-8273	<a href="mailto:jnyarady@arb.ca.gov">jnyarady@arb.ca.gov</a>
Mike Jaczola	916-324-8178	<a href="mailto:mjaczola@arb.ca.gov">mjaczola@arb.ca.gov</a>
Monique Davis	916-324-8182	<a href="mailto:mdavis@arb.ca.gov">mdavis@arb.ca.gov</a>
Christian Hurley	916-324-8181	<a href="mailto:churley@arb.ca.gov">churley@arb.ca.gov</a>
Lynna Negri	916-324-8018	<a href="mailto:lnegri@arb.ca.gov">lnegri@arb.ca.gov</a>

FAQs will also be available at “[www.arb.ca.gov/coatings/arch/survey/2005/survey.htm](http://www.arb.ca.gov/coatings/arch/survey/2005/survey.htm).”

**2005 ARCHITECTURAL COATINGS SURVEY**

**PART A**  
**SURVEY FORMS**  
**AND**  
**INSTRUCTIONS**

**DUE DATE: September 1, 2005**

<b>2005 California Architectural Coatings Survey</b>		
Air Resources Board, P.O. Box 2815 – Sacramento, CA 95812 - Attention: Stationary Source Division, Measures Assessment Branch		
Phone: 916.324.8023	FAX: 916.324.8026	<a href="http://www.arb.ca.gov/coatings/arch/survey/2005/survey.htm">www.arb.ca.gov/coatings/arch/survey/2005/survey.htm</a>

**TYPES OF PRODUCTS TO REPORT** (see pages 20 - 26 for definitions)

**Architectural Coatings** – Field application to:

- stationary structures or their appurtenances
- portable buildings
- pavements
- curbs

**Appurtenance** - Any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to:

- catwalks
- elevators
- bathroom and kitchen fixtures
- pipes and piping systems
- fire escapes
- cabinets
- fences
- heating equipment
- rain gutters and downspouts
- window screens
- concrete forms
- hand railings
- air conditioning equipment
- stairways
- partitions
- doors
- lampposts
- fixed mechanical equipment or stationary tools
- fixed ladders

**Bituminous Coatings** – If you sold any of the following types of coatings in containers larger than 16 fluid ounces:

- Bituminous dampproofing or foundation coatings
- Bituminous tank and pipe coatings
- Bituminous do-it-yourself driveway repair coatings, sealers, dressings, or crack fillers

**DO NOT REPORT**

- Aerosol coatings
- Consumer products
- Shop applied coatings
- Paving asphalt, emulsified asphalt, or cutback asphalt used in building or repairing:
  - highways
  - runways
  - impounded liners
  - streets
  - airfields
  - roads
  - sanitary landfills
  - parking lots
  - extruded curbs
- Adhesives & Sealants
- Caulk or Caulking Compounds
- Original Equipment Manufacturer coatings
- Automotive coatings
- Furniture & appliance coatings
- Aerospace coatings
- Pleasure craft coatings
- Marine coatings

<b>2005 California Architectural Coatings Survey</b>		
Air Resources Board, P.O. Box 2815 – Sacramento, CA 95812 - Attention: Stationary Source Division, Measures Assessment Branch		
Phone: 916.324.8023	FAX: 916.324.8026	www.arb.ca.gov/coatings/arch/survey/2005/survey.htm

**REASONS FOR NOT COMPLETING THE SURVEY FORM**

*(Please submit this form if you are not completing the survey.)*

Company Name:		Web Site:
Division:		
Address:		
City:	State:	Zip:
Contact Person:		Title:
Phone:	FAX:	Email:

We are not completing the ARB’s 2005 Architectural Coating survey because (check one):

- We are not a paint manufacturer/importer/distributor.
  
- We are a paint distributor and the manufacturer of products “manufactured for” us or “distributed by” us is completing the survey. That manufacturer is \_\_\_\_\_  
\_\_\_\_\_
  
- We are a parent/holding company of a paint manufacturer/importer/distributor and that subsidiary manufacturer/importer/distributor is completing the survey. That subsidiary manufacturer/importer/distributor is \_\_\_\_\_  
\_\_\_\_\_
  
- We are a paint manufacturer/importer/distributor, but our parent/holding company is completing the survey for us. That parent/holding company is \_\_\_\_\_  
\_\_\_\_\_
  
- We are a paint manufacturer/importer/distributor, but we did not have sales of architectural coatings in California in 2004.
  
- Other (Please explain):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature:	Date:
------------	-------

<b>2005 California Architectural Coatings Survey</b>		
Air Resources Board, P.O. Box 2815 – Sacramento, CA 95812 - Attention: Stationary Source Division, Measures Assessment Branch		
Phone: 916.324.8023	FAX: 916.324.8026	<a href="http://www.arb.ca.gov/coatings/arch/survey/2005/survey.htm">www.arb.ca.gov/coatings/arch/survey/2005/survey.htm</a>

**CONFIDENTIAL INFORMATION SUBMITTAL FORM**

If you wish to designate any information contained in your survey data as **CONFIDENTIAL INFORMATION**, please provide the data requested below and return it with your completed survey forms.

In accordance with Title 17, California Code of Regulations (CCR), sections 91000 to 91022, and the California Public Records Act (Government Code Section 6250 et seq.), the information that a company provides to the Air Resources Board (ARB) may be released (1) to the public upon request, except trade secrets which are not emissions data or other information which is exempt from disclosure or the disclosure of which is prohibited by law; and (2) to the Federal Environmental Protection Agency (EPA), which protects trade secrets as provided in Section 114(c) of the Clean Air Act and amendments thereto (42 USC 7401 et seq.) and in federal regulation; and (3) to other public agencies provided that those agencies preserve the protections afforded information which is identified as a trade secret, or otherwise exempt from disclosure by law (Section 39660(e)).

Trade secrets as defined in Government Code Section 6254.7 are not public records and therefore will not be released to the public. However, the California Public Records Act provides that air pollution emission data are always public records, even if the data comes within the definition of trade secrets. On the other hand, the information used to calculate emissions is a trade secret.

If any company believes that any of the information it may provide is a trade secret or otherwise exempt from disclosure under any other provision of law, **it must identify the confidential information as such at the time of submission to the ARB and must provide the name, address, and telephone number of the individual to be consulted**, if the ARB receives a request for disclosure or seeks to disclose the data claimed to be confidential. The ARB may ask the company to provide documentation of its claim of trade secret or exemption at a later date. Data identified as confidential will not be disclosed unless the ARB determines, in accordance with the above referenced regulations, that the data do not qualify for a legal exemption from disclosure. The regulations establish substantial safeguards before any such disclosure.

In accordance with the provisions of Title 17, California Code of Regulations, sections 91000 to 91022, and the California Public Records Act (Government Code Sections 6250 et seq.),

**Company Name:** \_\_\_\_\_ declares that only those portions specifically identified and submitted in response to the California Air Resources Board's information request on the survey are confidential "**trade secret**" information, and requests that it be protected as such from public disclosure. All inquiries pertaining to the confidentiality of this information should be directed to the following person:

Name (please print): \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone #: \_\_\_\_\_

Company Address: \_\_\_\_\_  
 \_\_\_\_\_

## SURVEY FORMS – Brief Description Reporting Year 2004

### FORM 1 – Company Information

Page 7

Page 8 – Instructions  
for FORM 1

There are three key forms to this survey. They consist of FORM 1 (Page 7), FORM 2 (Page 9), and FORM 3 (Page 13). The remaining pages are abbreviated instructions for each form. Additional instructions and supplemental information can be found in the survey booklet.

- FORM 1 and instructions consist of pages 7 and 8. Each company/respondent to this survey will complete one FORM 1.
- FORM 2 and instructions consist of pages 9 through 12. Complete one FORM 2 for each product or group of products.

### FORM 2 – Product Information

Page 9

Page 10 – Instructions for  
FORM 2

Page 11 – Instructions for  
FORM 2, continued  
(Coating Category Codes)

Page 12 – Instructions for  
FORM 2, continued  
(Substrate / Resin Codes /  
Sales Volume)

### FORM 3 – Ingredient Information

Page 13

Page 14 – Instructions  
for FORM 3

- FORM 3 and instructions consist of pages 13 and 14. Complete one FORM 3 for each product or group of products.
- **NOTE:** For each FORM 2 there must be a corresponding FORM 3. For each FORM 3 there must be a corresponding FORM 2.

### Submitting Survey FORMS or Data

**Option 1:** Along with your single FORM 1, assemble all FORM 2's and corresponding FORM 3's sequentially by entry #'s as separate stacks.

*FORM 1*

*FORM 2*

*FORM 3*

**Option 2:** Along with your single FORM 1, assemble each FORM 2 and corresponding FORM 3 sequentially by entry #'s as a single stack.

*FORM 1*

**Option 3:** Submitting Data Electronically.

Survey data may be submitted electronically to the Air Resources Board. The file formats allowed are as follows:

1. ASCII delimited file
2. Microsoft Excel
3. Microsoft Access

To obtain additional information on file formats visit  
 “[www.arb.ca.gov/coatings/arch/survey/2005/survey.htm](http://www.arb.ca.gov/coatings/arch/survey/2005/survey.htm)”

<b>2005 California Architectural Coatings Survey</b>		
Air Resources Board, P.O. Box 2815 – Sacramento, CA 95812 - Attention: Stationary Source Division, Measures Assessment Branch		
Phone: 916.324.8023	FAX: 916.324.8026	www.arb.ca.gov/coatings/arch/survey/2005/survey.htm

**FORM 1**  
**Company Information – Reporting Year 2004**  
*(Instructions for completing FORM 1: See back side)*

Company Name:		Web Site:							
Division:									
Address:									
City:		State:		Zip:					
Contact Person:			Title:						
Phone:		FAX:		Email:					
<b>Type of Business</b> (check all that apply) <input type="checkbox"/> Manufacturer <input type="checkbox"/> Importer <input type="checkbox"/> Retail Distributor <input type="checkbox"/> Wholesale Distributor <input type="checkbox"/> Private Label Manufacturer <input type="checkbox"/> Toll Manufacturer <input type="checkbox"/> Other (Specify): _____		<b>Gross Annual Receipts (\$)</b> <i>For Calendar Year 2004</i>			<b>Company Wide</b>	<b>California Company</b>	<b>California Coatings Division</b>		
					Less than 500,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Between 500,000 and < 1 million	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		Between 1 and < 2 million	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		Between 2 and < 5 million	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		Between 5 and < 10 million	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		Between 10 and < 100 million	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		Between 100 million and < 1 billion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		Greater than or equal to 1 billion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		<b>Company Marketing Classification</b> (check all that apply) <input type="checkbox"/> International <input type="checkbox"/> National <input type="checkbox"/> Regional (specify, e.g., western U.S.): _____ <input type="checkbox"/> California Statewide <input type="checkbox"/> California Local		<b>Employees</b> <i>For Calendar Year 2004</i>					
							Less than 10	<input type="checkbox"/>	<input type="checkbox"/>
				Between 10 and < 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
				Between 100 and < 250	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Between 250 and < 500	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>				
Greater than or equal to 500	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>				
<b>Company Organization and/or Ownership</b> Parent Company Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Contact Person: _____ Title: _____ Phone #: _____		<b>How did you determine California Year 2004 Sales Volume?</b> (check all that apply)			<input type="checkbox"/> Direct California retail sales <input type="checkbox"/> Direct California wholesale distribution <input type="checkbox"/> Prorated from national retail sales <input type="checkbox"/> Prorated from national wholesale distribution <input type="checkbox"/> Other (explain): _____ _____ _____				

**CERTIFICATION**

I hereby certify that, to the best of my knowledge and belief, all information entered on the Company Information Form (Form 1), Product Information Form (Form 2), and Ingredient Information Form (Form 3) is complete and accurate.

Name:	Title:
Signature:	Date:

2005 California Architectural Coatings Survey		
Air Resources Board, P.O. Box 2815 – Sacramento, CA 95812 - Attention: Stationary Source Division, Measures Assessment Branch		
Phone: 916.324.8023	FAX: 916.324.8026	<a href="http://www.arb.ca.gov/coatings/arch/survey/2005/survey.htm">www.arb.ca.gov/coatings/arch/survey/2005/survey.htm</a>

## FORM 1 Instructions Company Information – Reporting Year 2004

The information requested on FORM 1 will assist the California Air Resources Board in characterizing the types of businesses that are included in the survey as required by State law.

This survey is primarily intended for paint manufacturers who distribute architectural coatings in California. The reporting year is 2004. If your company is not a paint manufacturer, but your company name is listed as “manufactured for” or “distributed by” on the product label, you are responsible for completing the requested information in this survey. You are encouraged to coordinate your response with the appropriate manufacturer of your product to avoid double reporting of sales data. Holding companies or subsidiaries may also need to report for this survey.

**Company Name:** Enter the name of your company. If you are completing this survey for more than one company, please specify.

**Web Site:** Enter your company web site address, for example, “www.paintcompany.com.”

**Address:** Enter mail address of company name.

**Contact Person:** Name of person to be contacted if there are questions about the survey responses.

**Title:** Business title of the contact person.

**Phone:** Telephone number of contact person.

**Fax:** Fax number of contact person.

**Email:** Email of contact person.

**Type of Business:** Check the box that describes the type of business conducted by your company. (Check all that apply.)

Manufacturer – A company/person that produces, packages, or repackages architectural coatings for sale or distribution in the State of California.

Importer – A company/person that brings architectural coatings into the United States for sale or distribution within the State of California.

Retail Distributor – A company/person who sells or supplies architectural coatings directly at the retail level.

Wholesale Distributor – A company/person who sells or supplies architectural coatings for the purposes of resale or distribution in commerce at the wholesale level.

Private Label Manufacturer – A company/person that manufactures architectural coatings for sale under another company’s name.

Toll Manufacturer – A company/person that manufactures architectural coatings based on the formula of another company and places the other company’s name on the product label.

**Company Marketing Classification:** Check the box that describes your company’s primary marketing classification. (Check all that apply.)

International – Two or more nations. For example, United States, Canada, and Mexico.

National – The United States.

Regional – A portion of the United States. For example, western U.S., consisting of California, Oregon, Washington, and Arizona.

California Statewide – The State of California.

California Local – A portion of the State of California. For example, Southern California or the San Francisco Bay Area.

**Company Organization and/or Ownership:** If your company is a “division of,” or “subsidiary of,” or has a “Parent Company,” please specify. Holding companies or subsidiaries may also need to respond to this survey.

**How did you determine California Year 2004 Sales Volume?:** Identify the method used to determine California sales volume.

**Gross Annual Receipts:** Check the box which identifies the gross annual receipts generated by your company. This means the total income of the company before expenses are deducted. If available, check the box which identifies the gross annual receipts generated by your company in California and/or your California coatings division. This means the portion of total income derived from California sales or your California coatings division sales. Include secondary products related to coatings sales.

**Employees:** Check the box which indicates the total number of employees (including part-time and temporary staff) of the company. If available, check the box which identifies the number of employees in California and/or your California coatings division (including part-time and temporary staff).

**Certification:** Please have an authorized company officer or corporate counsel certify that the Company Information (FORM 1), Product Information (FORM 2), and Ingredient Information (FORM 3) is complete and accurate.

**FORM 2**  
**Product Information – Reporting Year 2004**  
*(Instructions for completing FORM 2: See pages 10 through 12)*

Entry # :	Note: This entry # must also appear on your corresponding FORM 3.							
Product Code:								
Product Name:								
<b>Physical &amp; Other Data</b>								
# of Products Grouped	Coating Category Code	Substrate Code(s)	Interior, Exterior, or Dual	Vehicle Technology	Resin Code(s)	Single or Multi-Component	Coating Density* C <sub>d</sub>	Averaging Program Product
	1-52	0-18	I, E, D	SB or WB	1-21	S or M	lbs/gal	Y or N
Weight Percent of Volatile Material* W <sub>vm</sub> %	Weight Percent of Water* W <sub>w</sub> %	Weight Percent of Exempts* W <sub>e</sub> %	Weight Percent of Solids* %	Volume Percent of Solids* %	Volume Percent of Water* V <sub>w</sub> %	Volume Percent of Exempts* V <sub>e</sub> %	VOC Actual* grams/liter	VOC Regulatory* (Less Water) grams/liter
If necessary, use these equations with the factors above to calculate VOC Actual and VOC Regulatory.								
$\text{VOC Actual (g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{100} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$ $\text{VOC Regulatory (g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{(100 - V_w - V_e)} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$ $\text{VOC Regulatory (Low Solids, g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{100} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$								
See page 27, and 30 through 34 for more examples.								
How were VOC Actual and Regulatory determined?				<input type="checkbox"/> U.S. EPA Method 24		<input type="checkbox"/> Formulation Data		
<b>2004 California Sales in Gallons (Include sales to distributors)</b>								
Container Sizes One Quart or Less (gallons)			Container Sizes Larger Than One Quart (gallons)			Total Gallons (quart or less + > quart)		
* SWA – Report SWA “Sales Weighted Average” if grouping products.								
Comments:								

<b>2005 California Architectural Coatings Survey</b>		
Air Resources Board, P.O. Box 2815 – Sacramento, CA 95812 - Attention: Stationary Source Division, Measures Assessment Branch		
Phone: 916.324.8023	FAX: 916.324.8026	<a href="http://www.arb.ca.gov/coatings/arch/survey/2005/survey.htm">www.arb.ca.gov/coatings/arch/survey/2005/survey.htm</a>

## FORM 2 Instructions Product Information – Reporting Year 2004

**Entry # :** Each FORM 2 completed must be numbered sequentially, beginning with number “1.” This entry # must also appear on your corresponding FORM 3.

**Product Code:** Enter product code. If you are grouping products, enter the sales leader of the group.

**Product Name:** Enter the product / label name for the product code above.

**Number of Products Grouped:** In reporting products for this survey, products can be reported either individually or as a group. Enter "1" if you are reporting one product individually. You may group products only if all of the following conditions are met:

- (1) The products belong to the same category (e.g., flats);
- (2) The products have the same vehicle technology (i.e., solvent-borne or water-borne), resin type, substrate, interior or exterior use recommendation, and single - or multi-component form; and
- (3) VOC Regulatory range cannot exceed 25 grams/liter. That is, the highest VOC Regulatory minus lowest VOC Regulatory of the group cannot exceed 25 grams/liter.
- (4) If grouping averaging program products, in addition to conditions 1-3, all products in the group must have been averaged and must all be above a limit or below a limit.

**Coating Category Code:** See page 11. Category definitions are on pages 20 through 26 of the survey booklet.

**Substrate Code(s):** See page 12. A substrate code must be entered for all products. If no code is entered, a response of “All Substrates” will be assumed.

**Interior/Exterior/Dual:** Enter recommended exposure - interior or exterior. Enter "Dual" for dual purpose interior/exterior products.

**Vehicle Technology:** Identify the vehicle technology of the coating - Solvent-borne (SB) or Water-borne (WB).

*Solvent-borne:* A coating that contains less than 50 percent water by weight in its volatile fraction. Is generally cleaned up with solvent.

*Water-borne:* A coating that contains 50 percent or more water by weight in its volatile fraction. Is generally cleaned up with water.

**Resin (Binder) Code(s):** See page 12. You can enter multiple resin codes.

**Single or Multi-Component:** Identify whether coating is single or multi-component. VOC content for multi-component coatings are as mixed, applied or fully reacted.

*Note: Use "Sales Weighted Average" (SWA) for the following data fields if you have chosen to group coatings. See pages 28, 32 & 33 of the survey booklet for sample calculation of SWA.*

**Coating Density:** Enter the density of the coating in pounds per gallon (lbs/gal).

**Averaging Program Product:** Did this product participate in an averaging program (yes or no)?

**Weight Percent of Volatile Material:** Weight of volatile material (VOC+water+exempts) as percent of total coating weight. See page 25 of the survey booklet for definition of VOC (volatile organic compound) and VOC content.

**Weight Percent of Water:** Weight of water as percent of total coating weight.

**Weight Percent of Exempts:** Weight of exempt compounds as percent of total coating weight. See page 21 and 25 of the survey booklet for definition.

**Weight Percent of Solids:** Enter the solids content of the coating as percent of total coating weight.

**Volume Percent of Solids:** Enter the solids content of the coating as percent of total coating volume.

**Volume Percent of Water:** Volume of water as percent of total coating volume.

**Volume Percent of Exempts:** Volume of exempt compounds as percent of total coating volume.

**VOC Actual:** Also known as Material VOC. Enter the VOC content of the coating(s), as supplied, in grams of VOC per liter of coating. This is the weight of all volatile materials less the weight of water and less the weight of exempt compounds per the entire volume of the coating. This is NOT the same as VOC Regulatory. See “VOC Calculations” page 27.

*Note: VOC content for multi-component coatings are as mixed, applied or fully reacted.*

**VOC Regulatory (Less Water):** Also known as Coating VOC. Enter the VOC content of the coating(s), as supplied, in grams of VOC per liter of coating, less water, less exempt compounds, and less any colorant added to the tint bases. This may be determined from the formulation data or previously determined by EPA Method 24, 40 CFR Part 60, as amended in Federal Register Vol. 57, No. 133, July 10, 1992, or ASTM D 3960-92. See “VOC Calculations” page 27.

*Note: VOC content for multi-component coatings are as mixed, applied or fully reacted.*

**How were VOC Actual and Regulatory Determined?** Check U.S. EPA Method 24 or Formulation Data

**2004 California Sales in Gallons** (Include sales to distributors): See page 12.

2005 California Architectural Coatings Survey		
Air Resources Board, P.O. Box 2815 – Sacramento, CA 95812 - Attention: Stationary Source Division, Measures Assessment Branch		
Phone: 916.324.8023	FAX: 916.324.8026	www.arb.ca.gov/coatings/arch/survey/2005/survey.htm

**FORM 2 Instructions, Continued**  
**Product Information – Coating Category Codes**

Category	Code	Category	Code
Antenna	1	Nonflat – Medium gloss	27
Antifouling	2	Nonflat – High Gloss	28
Bituminous Roof	3	Pre-Treatment Wash Primer	29
Bituminous Roof Primer	4	Primer / Sealer / Undercoater	30
Bond Breakers	5	Quick Dry Enamel	31
Clear Brushing Lacquer	6	Quick Dry Primer / Sealer / Undercoater	32
Concrete Curing Compounds	7	Recycled	33
Dry Fog	8	Roof	34
Faux Finishing	9	Rust Preventative	35
Fire Resistive	10	Sanding Sealers (other than lacquer sanding sealers)	36
Fire Retardant – Clear	11	Shellacs – Clear	37
Fire Retardant – Opaque	12	Shellacs – Opaque	38
Flat	13	Specialty Primer / Sealer / Undercoater	39
Floor	14	Stains – Clear / Semitransparent	40
Flow	15	Stains – Opaque	41
Form Release Compounds	16	Swimming Pool	42
Graphic Arts (Sign Paints)	17	Swimming Pool Repair & Maintenance	43
High Temperature	18	Temperature Indicator Safety	44
Industrial Maintenance	19	Traffic Marking	45
Lacquers (including lacquer sanding sealers)	20	Varnishes – Clear	46
Low Solids	21	Varnishes – Semitransparent	47
Magnesite Cement	22	Waterproofing Sealers	48
Mastic Texture	23	Waterproofing Concrete / Masonry Sealers	49
Metallic Pigmented	24	Wood Preservatives	50
Multi-Color	25	Other (specify in comment area of FORM 2)	51
Nonflat – Low Gloss	26	Driveway Sealer	52

Possible Reporting Categories For Other National Rule (1) Categories	
National Rule Category	Possible Reporting Category
Anti-Graffiti	Industrial Maintenance or Flat/Nonflat
Bituminous and Mastic	Roof, Bituminous Roof or Primer, Primer / Sealer / Undercoater, Waterproofing Sealer, Waterproofing Concrete / Masonry Sealers, Industrial Maintenance
Calcimine Recoater	Flat or Specialty Primer / Sealer / Undercoater
Chalkboard Resurfacers	Industrial Maintenance
Concrete Curing and Sealing	Concrete Curing Compounds or Waterproofing Concrete / Masonry Sealers
Concrete Protective	Waterproofing Concrete / Masonry Sealers
Concrete Surface Retarder	Other
Conversion Varnish	Varnishes
Extreme High Durability	Industrial Maintenance
Heat Reactive	Industrial Maintenance (generally an OEM coating)
Impacted Immersion	Industrial Maintenance
Nonferrous Ornamental Metal Lacquers and Surface Protectants	Lacquers or Rust Preventative
Nuclear	Industrial Maintenance
Repair and Maintenance Thermoplastic	Industrial Maintenance
Stain Controllers	Low Solid or Primer, Sealer, Undercoater
Thermoplastic Rubber and Mastics	Roof
Zone Marking	Traffic

1. National Volatile Organic Compound Emission Standards for Architectural Coatings (40 CFR Part 59, Subpart D)  
Note: This reference table is provided as general guidance only and is not intended to be used as a definitive determination by the California Air Resources Board.

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**FORM 2 Instructions, Continued**  
**Product Information – Substrate / Resin Codes / 2004 Sales Volume**

Substrate Codes	
Substrate	Code
All Substrates	0
Acoustical Materials: Ceiling Texture, Acoustic Tile, etc.	1
Asphalt	2
Concrete, Stone, Masonry, etc. (Includes codes 4 through 8)	3
Brick	4
Cinder Block, Concrete Block	5
Stone	6
Stucco	7
Tilt up and poured in place concrete	8
Drywall / Plaster: Textured and Untextured	9
Metal: (Includes codes 11 and 12)	10
Ferrous: Iron, Steel	11
Nonferrous: Galvanized, Aluminum, Alloys, etc	12
Wood: (Includes codes 14 through 17)	13
Not painted, smooth	14
Not painted, rough sawn	15
Previously painted or stained	16
Plywood, Synthetic Wood, Hardboard, T-111 Siding, Masonite, Chipboard, Compressed Wood (wood chip or wood fiber based building materials)	17
Other: Specify	18

Resin \ Binder Codes					
Resin \ Binder	Code	Resin \ Binder	Code	Resin \ Binder	Code
Acrylic	1	Oleoresin	8	Urethane, Polyurethane	15
Acrylic Copolymer	2	Phenolic	9	Polyvinyl Chloride (PVC)	16
Alkyd	3	Polyester (Not Alkyd)	10	Vinyl Toluene	17
Amines, Amides	4	Polyvinyl Acetate (PVA)	11	Vinyl Acrylic Copolymer	18
Cellulosic	5	Shellac	12	Other: Specify	19
Chlorinated Rubber	6	Silicone, Silane, Siloxane	13	Asphaltic \ Bituminous	20
Epoxy	7	Styrene-butadiene	14	Oil (e.g., linseed, tung)	21

**2004 California Sales in Gallons**

Enter the California sales of the coating, in gallons, for reporting year 2004. Sales can be determined from one or more of the following:

1. Direct California retail sales
2. Direct California wholesale distribution
3. Prorated from national retail sales
4. Prorated from national wholesale distribution
5. Other (explain):

Report sales volume for two classes of container sizes:

**Container Sizes One Quart or Less:** Enter California sales volume in gallons.

**Container Sizes Larger Than One Quart:** Enter California sales volume in gallons.

**Note:** For multi-component coatings, report as mixed or applied volume.

**Total Gallons:** Enter total California sales in gallons. Combine quart or less volume with larger than quart volume.

**Estimating California Sales:** If California specific sales data are not available, sales may be estimated using national or regional sales figures that are apportioned appropriately. If you use population as a basis for determining sales, please use the U.S. Resident Population estimates provided on page 29 of the survey booklet.



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### FORM 3 Instructions Ingredient Information – Reporting Year 2004

FORM 3 requests ingredient information about single or grouped products. If you are grouping products, FORM 3 will represent your sales leader or best representative product of the group. In this table provide all volatile ingredients which are part of the product formulation. Complete one FORM 3 for each FORM 2 completed.

***For grouped products, report the ingredients of the sales leader or best representative product in the group.***

**Entry # From FORM 2:** Enter the Entry # from corresponding FORM 2.

**Ingredient #:** Number each ingredient sequentially.

**Ingredient Name:** Enter the chemical name of the ingredient. Chemical names must be distinguished from trade names. For example, the chemical name of SD 40 Alcohol is ethanol. Enter the trade name of the ingredient if the chemical name is unknown. If the ingredient is proprietary or a mixture (e.g., hydrocarbon solvents) identify the trade name and manufacturer / primary supplier.

***NOTE:*** *The volatile portions of resin solutions, colorants or additives must be included. For example, do not include the volatile portion of a resin solution as a solid.*

**CAS#:** Please enter the Chemical Abstract Service (CAS) number for the ingredient.

**BIN #:** If available, provide the reactivity bin number for hydrocarbon solvents (e.g., mineral spirits, Stoddard Solvent, VM&P naphtha). See survey booklet pages 15 - 18 for more information. Do not group different CAS #'s under one BIN #.

**Weight % (of total material):** Enter the percent by weight to the nearest 0.1% for each ingredient in the final product. If the volatile is a mixture of known components, list the components separately with their individual weight percentages in the final product. If the components of a mixture cannot be determined, list the ingredient as a single entity. For example, you may not know the individual ingredients of petroleum distillates or biocides down to 0.1 weight %. In this case identify the trade name, manufacturer, and weight percent of mixture.

***NOTE:*** *The volatile portions of resin solutions, colorants or additives must be included. For example, do not include the volatile portion of a resin solution as a solid.*

Reporting Level - List volatiles that individually amount to 0.1 weight % or greater by weight of the final product.

**Aggregated VOCs and Exempt Compounds < 0.1 weight %:** Aggregate each of the remaining volatiles that individually account for less than 0.1 weight % of the final product and enter the sum.

**Water:** Enter the weight percent water.

**Solids:** Enter the weight percent solids.

**Total of All Ingredients:** The sum of all volatiles and solids in the table must equal 100 percent by weight. If this value does not sum to 100, please check the component percentages. The weight percents should match those on FORM 2.

**Comments:** Enter any information that will help clarify entries made for FORM 3.

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## HYDROCARBON SOLVENT INFORMATION AND BIN NUMBERS

A BIN number is a classification scheme that represents the overall photochemical reactivity of a group of solvents with similar characteristics. Although most of the large chemical suppliers are aware of BIN numbers, you may encounter some that are unfamiliar with the term. Many suppliers include the BIN number on their product literature. Depending on the level of detail of the literature that accompanies shipments of the solvent, you may be able to determine the BIN number without further consulting your supplier. For your convenience, we have compiled a list of some common hydrocarbon solvents and their BIN numbers below. You can also use the list of BIN numbers for aliphatic and aromatic hydrocarbon solvents on page 18, if your supplier can not provide a BIN number and your hydrocarbon solvent is not listed below. Please note that BIN numbers are required only for hydrocarbon solvents, not for VOCs such as alcohols, glycol ethers, ketones or acetates.

Manufacturer		
	Trade Name	BIN #
<b>American Refining Group</b>		
	Kensol 30	15
<b>Ashland, Incorporated</b>		
	142 Solvent 66	11
	Hi Sol® 10	22
	Hi Sol® 15	23
	Kwik-Dri®	6
	Lacolene®	6
	Low Odor Base Solvent®	16
	Mineral Spirits 66 (1% Aromatic)	11
	Mineral Spirits 66 (7.5% Aromatic)	14
	Mineral Spirits NE	15
	Odorless Mineral Spirits	12
	VM&P Naphtha	6
	Xylenes	21
<b>Calumet Lubricants</b>		
	142 Flash	11
	Calprint 35	16
	Calprint 38	16
	Calprint 600 Solvent	20
	Hexane	1
	Iso-Hexane	2
	LVP 100	11
	LVP 200	16
	LVP 300	16
	LVP 400	20
	Mineral Spirits	15
	Mineral Spirits (<1%)	11
	VM&P (<1%)	6
<b>Chemcentral</b>		
	Aromatic 100	22
	Aromatic 150	23
	Aromatic 200	24
	Xylenes	21
	140 Solvent	11
	Heptane	1
	Hexane	1
	Mineral Spirits	15
	Odorless Mineral Spirits	11

Manufacturer		
	Trade Name	BIN #
<b>Chemcentral (continued)</b>		
	VM&P Naphtha	6
<b>Chevron Phillips Chemical Company</b>		
	Soltrol® 10 Fluid	7
	Soltrol® 100 Fluid	7
	Soltrol® 130 Fluid	12
	Soltrol® 170 Fluid	11
	Soltrol® 220 Fluid	16
<b>CITGO</b>		
	142 Solvent 66/3	11
	170 Solvent	11
	Camping Fuel	4
	Citgo Mineral Seal Oil	19
	Heptane	2
	Hexane	1
	Lactol Spirits	10
	Mineral Spirits 150	11
	Mineral Spirits 66/3	11
	Mineral Spirits 75	9
	Naphthol Spirits 66/3	6
	Regular Mineral Spirits	15
	Roto Solv	9
	Rubber Solvent	4
	Solv G	23
	Special Lactolite	6
	Special Naphtholite 66/3	6
	Super Hi Flash Naphtha	22
	Textile Spirits	1
	Xylenes	21
<b>Conoco Phillips</b>		
	Pentanes	1
	Hexanes	1
	Iso-hexanes	2
	Heptanes	1
<b>Crompton Witco Refined Products</b>		
	PD-23	17
	PD-26	17
	PD-28	17

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<b>Manufacturer</b>		
	Trade Name	BIN #
<b>Exxonmobil Chemical Company</b>		
	1520 Naphtha	1
	2024 Naphtha	9
	Aromatic 100 Fluid	22
	Aromatic 150 Fluid	23
	Aromatic 200 Fluid	24
	Exxsol® D110 Fluid	16
	Exxsol® D130 Fluid	16
	Exxsol® D3135 Naphtha	6
	Exxsol® D40 Fluid	11
	Exxsol® D80 Fluid	11
	Exxsol® D95 Fluid	N/A*
	Exxsol® DSP 75/100 Naphtha	1
	Exxsol® DSP 115/145 Naphtha	6
	Exxsol® Hexane Fluid	2
	Exxsol® Heptane Fluid	2
	Exxsol® Methylpentane Naphtha	2
	Isopar® C Fluid	7
	Isopar® E Fluid	7
	Isopar® G Fluid	7
	Isopar® H Fluid	12
	Isopar® K Fluid	12
	Isopar® K Naphtha	12
	Isopar® L Fluid	11
	Isopar® M Fluid	16
	Isopar® V Fluid	16
	Norpar® 12 Fluid	12
	Norpar® 13 Fluid	12
	Norpar® 14 Fluid	17
	Norpar® 15 Fluid	17
	OMS	12
	RS Naphtha	5
	Varsol® 1 Fluid	15
	Varsol® 1 Naphtha	15
	Varsol® 110 Fluid	20
	Varsol® 140 Naphtha	15
	Varsol® 18 Fluid	14
	Varsol® 18 Naphtha	9
	Varsol® 3135 Naphtha	10
	Varsol® DX 140 Naphtha	14
	Xylenes	21
<b>Flint Hills Resources</b>		
	Sure-Sol® 100	22
	Sure-Sol® 150	23
	Sure-Sol® 150ND	23
	Xylenes	21
<b>Gary-Williams Energy Corporation</b>		
	100W	15
<b>Marathon Ashland Petroleum LLC</b>		
	90 Solvent	6

<b>Manufacturer</b>		
	Trade Name	BIN #
<b>Marathon Ashland Petroleum LLC (continued)</b>		
	142 Solvent	11
	Kwik-Dri®	6
	Lacolene®	6
	Low Odor Base Solvent®	16
	Mineral Spirits Rule 66	11
	Non-Exempt Mineral Spirits	15
	VM&P Naphtha	6
<b>Penreco</b>		
	Conosol® 215	16
	Conosol® 260	16
	Conosol® 340	16
	Conosol® 38V	16
	Conosol® 46V	16
	Conosol® 50V	16
	Conosol® 90	11
	Conosol® C-145	13
	Conosol® C-170	13
	Conosol® C-200	18
	Conosol® HDW	16
	Drakesol® 165	11
	Drakesol® 205	16
	Drakesol® 220	16
	Drakesol® 260	16
	Drakesol® 305	16
	Magiesol® 38LX	13
	Magiesol® 40	11
	Magiesol® 44	16
	Magiesol® 47	16
	Magiesol® 47LX	18
	Magiesol® 52	16
	Magiesol® 55LX	16
	Magiesol® 60	16
	Magiesol® 65LX	16
	Penreco® 144ES	14
	Penreco® 150-B	15
	Penreco® 170ES	14
	Penreco® LVT200	18
<b>Sasol North America, Incorporated</b>		
	C1316 Paraffin	17
	LINPAR® 1416-V Paraffin	17
	LPA® Solvent	11
	LPA®-142 Solvent	11
	LPA®-150 Solvent	11
	LPA®-170 Solvent	11
	LPA®-210 Solvent	16
	LPA®-210 Solvent	16
	MR Solvent	15
	ODC® Solvent	11
	ODC®-15 Solvent	15

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<b>Manufacturer</b>		
	Trade Name	BIN #
<b>Sasol North America, Incorporated (continued)</b>		
	Sasol® 47 Solvent	16
<b>Shell Chemicals</b>		
	Heptane - Cotton Valley	1
	Heptane – Lemont	2
	SHELLSOL® 15	15
	SHELLSOL® 16	15
	SHELLSOL® 7EC	14
	SHELLSOL® 9	15
	SHELLSOL® A100	22
	SHELLSOL® A150	23
	SHELLSOL® B HT	1
	SHELLSOL® D38	6
	SHELLSOL® D40	11
	SHELLSOL® D43	11
	SHELLSOL® D60	11
	SHELLSOL® D80	11
	SHELLSOL® OMS	12
	SHELLSOL® TC	7
	SHELLSOL® W HT	6
	VM&P Naphtha	6
<b>Whitaker Oil Company</b>		
	142 Flash Solvent (D-60)	11
	Aromatic 100	22
	Aromatic 150	23
	Heptane	2
	Hexane	1
	LPA® 142 Solvent	11
	LPA® 170 Solvent	11
	LPA® 210 Solvent	16
	LPA® Solvent	11
	Mineral Spirits (D-38)	6
	Mineral Spirits, Odorless	12
	Mineral Spirits, Rule 66 (D-40)	11
	Rubber Solvent	4
	VM&P Naphtha HT	6
	Xylenes	21

\*No Bin number needed, report only Trade Name and Manufacturer.

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**REACTIVITY BIN NUMBERS FOR ALIPHATIC AND AROMATIC HYDROCARBON SOLVENTS**  
(From the Air Resources Board’s Aerosol Coating Products Regulation)

If hydrocarbon solvents (e.g., mineral spirits, Stoddard Solvent, VM&P naphtha) are ingredients in your product, your solvent supplier should be able to tell you what the BIN # is for the solvent. The BIN #'s are defined as follows:

**Aliphatic Hydrocarbon Solvents**

Bin	Average 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 (≥ 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 (≥ 90% and < 2% Aromatics)	0.51
18	>460-580	Cyclo-Alkanes (≥ 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

**Aromatic Hydrocarbon Solvents**

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

Source: Title 17, California Code of Regulations, Article 3, Aerosol Coating Products, Section 94701

Additional details regarding the Aerosol Coating Products Regulation can be found at the following web site:

“[www.arb.ca.gov/regact/conspro/aerocoat/aerocoat.htm](http://www.arb.ca.gov/regact/conspro/aerocoat/aerocoat.htm)”

Specific information regarding the table on this page can be found in Chapter VI, Page 57, of the Staff Report which is also available at the web site identified above.

**2005 ARCHITECTURAL COATINGS SURVEY**

**PART B**

**SUPPLEMENTAL INFORMATION**

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## DEFINITIONS

**Adhesive:** Any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means. ***\*DO NOT REPORT\****

**Aerosol Coating Product:** 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. ***\*DO NOT REPORT\****

**Antenna Coating:** 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:** 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 both the U.S. EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, *et seq.*) and with the California Department of Pesticide Regulation.

**Appurtenance:** 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:** A coating to be applied to stationary structures or their 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.

**Bitumens:** 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:** A coating which incorporates bitumens that is labeled and formulated exclusively for roofing.

**Bituminous Roof Primer:** A primer which incorporates bitumens that is labeled and formulated exclusively for roofing.

**Bond Breaker:** 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.

**Caulk or Caulking Compound:** Used to fill voids with plastic or semiplastic materials to provide a seal against moisture or solvent intrusion. Commonly used for sealing joints in buildings and other structures where structural movement may occur. It is usually available in two consistencies: “gun grade” for use with a caulking gun, and “knife grade” for application with a putty knife; extruded preformed shapes are also available. ***\*DO NOT REPORT\****

**Clear Brushing Lacquers:** 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.

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**Coating:** 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:** 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:** A coating labeled and formulated for application to freshly poured concrete to retard the evaporation of water.

**Consumer Products:** “Consumer Product” means a chemically formulated product used by household and institutional consumers including, but not limited to, detergents; cleaning compounds; metal polishes; floor polish or wax; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; multi-purpose solvents, aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings. As used in this article, the term “consumer product” shall also refer to aerosol adhesives, including aerosol adhesives used for consumer, industrial, and commercial uses. ***\*DO NOT REPORT\****

**Driveway Sealer:** A bituminous emulsion type product that fills cracks and seals worn driveway surfaces. It restores appearance while protecting and preserving driveway pavements.

**Dry Fog Coating:** 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:** A compound identified as exempt under the definition of Volatile Organic Compound (VOC). Exempt compounds content of a coating shall be determined by South Coast Air Quality Management District (SCAQMD) Method 303-91 (Revised August 1996).

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

**Fire-Resistive Coating:** 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 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.

**Fire-Retardant Coating:** 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.

**Flat Coating:** 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 5 on a 60-degree meter according to ASTM Designation D 523-89 (1999).

**Floor Coating:** 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 subject to foot traffic.

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**Floor Polish or Wax:** 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. “Floor Polish or Wax” 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. ***\*DO NOT REPORT\****

**Flow Coating:** 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:** 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:** 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 lettering enamels, poster colors, copy blockers, and bulletin enamels.

**High-Temperature Coating:** A high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

**Industrial Maintenance Coating:** 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 for industrial or professional use only (“For industrial use only” or “For professional use only” or “Not for residential use” or “Not intended for residential use”).

- Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure 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:** 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:** 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:** A coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

**Mastic Texture Coating:** 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:** 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.

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**Multi-Color Coating:** A coating that is packaged in a single container and that exhibits more than one color when applied in a single coat.

**Multi-purpose Solvent:** 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. “Multi-purpose Solvent” includes solvents used in institutional facilities, except for laboratory reagents used in analytical, educational, research, scientific or other laboratories. “Multi-purpose Solvent” 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. **\*DO NOT REPORT\***

**Nonflat Coating:** 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 5 or greater on a 60-degree meter according to ASTM Designation D 523-89 (Reapproved 1999).

**Nonflat – High Gloss Coating:** A nonflat coating that registers a gloss of 70 or greater on a 60-degree meter according to ASTM Designation D 523-89 (Reapproved 1999).

**Nonflat – Medium Gloss Coating:** A nonflat coating that registers a gloss of 20 or above, but less than 70 on a 60-degree meter according to ASTM Designation D 523-89 (Reapproved 1999).

**Nonflat – Low Gloss Coating:** A nonflat coating that registers a gloss of 5 or above, but less than 20 on a 60-degree meter according to ASTM Designation D 523-89 (Reapproved 1999).

**Nonindustrial Use:** 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; and utilities infrastructure, including power generation and distribution, and water treatment and distribution systems.

**OEM coatings:** Original equipment manufacturer coatings, which include automotive, marine, furniture, and appliance, as well as many other miscellaneous industrial or job shop applications. **\*DO NOT REPORT\***

**Post-Consumer Coating:** 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:** A primer that contains a minimum of 0.5 percent acid, by weight, when tested in accordance with ASTM Designation D 1613-96, that is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

**Primer:** A coating labeled and formulated for application to a substrate to provide a firm bond between the substrate and subsequent coats.

**Quick-Dry Enamel:** A nonflat coating that is labeled as “Quick Dry” 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);
- When tested in accordance with ASTM Designation D 1640-95, sets to touch in 2 hours or less, is tack free in 4 hours or less, and dries hard in 8 hours or less by the mechanical test method; and
- Has a dried film gloss of 70 or above on a 60 degree meter.

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**Quick-Dry Primer, Sealer, and Undercoater:** A primer, sealer, or undercoater that is dry to the touch in 30 minutes and can be recoated in 2 hours when tested in accordance with ASTM Designation D 1640- 95.

**Recycled Coating:** 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.

**Residential:** 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:** 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 to be in this category, but shall be considered to be in the metallic pigmented coatings category.

**Rust Preventative Coating:** A coating formulated for nonindustrial use to prevent the corrosion of metal surfaces and the labels of all rust preventative coatings shall prominently display the statement “For Metal Substrates Only”.

**Sanding Sealer:** 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 is included in the lacquer category.

**Sealant:** Any material with adhesive properties that is formulated primarily to fill, seal, or waterproof gaps or joints between two surfaces. **\*DO NOT REPORT\***

**Sealer:** 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):** 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:** 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:** 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).

**Specialty Primer, Sealer, and Undercoater:** A coating labeled for blocking stains, for fire-damaged substrates, for smoke-damaged substrates, for water-damaged substrates, for excessively chalky substrates, and that is formulated for application to a substrate to seal fire, smoke or water damage; to condition excessively chalky surfaces, 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.

**Stain:** A clear, semitransparent, or opaque coating labeled and formulated to change the color of a surface but not conceal the grain pattern or texture.

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**Swimming Pool Coating:** A coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals.

**Swimming Pool Repair and Maintenance Coating:** 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:** 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).

**Tint Base:** An architectural coating to which colorant is added after packaging in sale units to produce a desired color.

**Traffic Marking Coating:** A coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berms, driveways, parking lots, sidewalks, and airport runways.

**Undercoater:** A coating labeled and formulated to provide a smooth surface for subsequent coatings.

**Varnish:** 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 final sheen or gloss of the finish.

**Volatile Organic Compound (VOC):** Any volatile compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:

- methane;
- methylene chloride (dichloromethane);
- 1,1,1-trichloroethane (methyl chloroform);
- trichlorofluoromethane (CFC-11);
- dichlorodifluoromethane (CFC-12);
- 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
- 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114);
- chloropentafluoroethane (CFC-115);
- chlorodifluoromethane (HCFC-22);
- 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123);
- 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);
- 1,1-dichloro-1-fluoroethane (HCFC-141b);
- 1-chloro-1,1-difluoroethane (HCFC-142b);
- trifluoromethane (HFC-23);
- pentafluoroethane (HFC-125);
- 1,1,2,2-tetrafluoroethane (HFC-134);
- 1,1,1,2-tetrafluoroethane (HFC-134a);
- 1,1,1-trifluoroethane (HFC-143a);
- 1,1-difluoroethane (HFC-152a);
- cyclic, branched, or linear completely methylated siloxanes;
- the following classes of perfluorocarbons:
  - (A) cyclic, branched, or linear, completely fluorinated alkanes;
  - (B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;

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(C) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and  
(D) sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds only to carbon and fluorine; and

- the following low-reactive organic compounds which have been exempted by the U.S. EPA:  
acetone;  
ethane;  
parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene);  
perchloroethylene; and  
methyl acetate.

**VOC Content:** The weight of VOC per volume of coating, calculated according to the procedures specified in “VOC Calculations and Conversions.” See “VOC Calculations” page 24 and 25.

**Waterproofing Sealer:** A coating labeled and formulated for application to a porous substrate for the primary purpose of preventing the penetration of water.

**Waterproofing Concrete / Masonry Sealer:** A clear or pigmented film-forming coating that is labeled and formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and staining.

**Wood Preservative:** A coating labeled and formulated to protect exposed wood from decay or insect attack, that is registered with both the U.S. EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code (U.S.C.) Section 136, *et seq.*) and with the California Department of Pesticide Regulation.

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## VOC CALCULATIONS AND CONVERSION FACTORS

### VOC Content

The following equations can be used to calculate entries contained in FORM 2 of this survey.

$$\text{VOC}_{\text{Actual}} = \frac{W_{\text{vm}} - W_{\text{w}} - W_{\text{e}}}{V_{\text{c}}} \quad \text{VOC}_{\text{Regulatory}} = \frac{W_{\text{vm}} - W_{\text{w}} - W_{\text{e}}}{V_{\text{c}} - V_{\text{w}} - V_{\text{e}}}$$

(Also known as Material VOC) (Also known as Coating VOC)

$$\text{VOC}_{\text{Regulatory (Low Solids)}} = \frac{W_{\text{vm}} - W_{\text{w}} - W_{\text{e}}}{V_{\text{c}}}$$

Where:

- $W_{\text{vm}}$  = Total weight of volatile materials (VOC+water+exempt compounds) in the coating, in grams
- $W_{\text{w}}$  = Weight of water in the coating, in grams
- $W_{\text{e}}$  = Weight of exempt compounds in the coating, in grams
- $V_{\text{c}}$  = Total volume of the coating, in liters
- $V_{\text{w}}$  = Volume of water in the coating, in liters
- $V_{\text{e}}$  = Volume of exempt compounds in the coating, in liters

Note: If you are using BatchMaster, Material VOC and Coating VOC can be found in MSDS / Compliance (Section III – Physical / Chemical Characteristics).

### VOC Regulatory After Recommended Thinning

The following equation can be used to calculate VOC Regulatory after the coatings are thinned with VOC containing solvents.

$$\text{VOC}_{\text{Regulatory (After Recommended Thinning)}} = \frac{\text{Volume}_{\text{Coating}} \times \text{VOC}_{\text{Regulatory}} + \text{Volume}_{\text{Thinner}} \times \text{VOC}_{\text{Thinner}}}{\text{Volume}_{\text{Coating}} + \text{Volume}_{\text{Thinner}}}$$

### Percent by Volume Solids of Coating

The following are two equations that can be used to calculate the percent volume solids of coating. The choice of equation depends on the type of information that is known about the coating.

- 1) If the weight and density of all of the solid (nonvolatile) materials are known, then the following equation may be used:

$$\% \text{ by Volume Solids of Coating} = \frac{\text{Weight of Solids}}{\text{Density of Solids} \times \text{Volume of Coating Material}} \times 100$$

- 2) If instead, only the volatile components of a coating (VOC, water and exempt compound) are known, the percent volume of solids may be estimated by the following equation.

$$\% \text{ by Volume of Solids of Coating} = \left( 1 - \frac{W_{\text{w}}}{D_{\text{w}} \times V_{\text{c}}} - \frac{W_{\text{voc}}}{D_{\text{voc}} \times V_{\text{c}}} - \frac{W_{\text{e}}}{D_{\text{e}} \times V_{\text{c}}} \right) \times 100$$

Where:

- $W_{\text{w}}$  = Weight of water in the coating, in grams
- $W_{\text{voc}}$  = Weight of VOC in the coating, in grams
- $W_{\text{e}}$  = Weight of exempt compounds in the coating, in grams
- $V_{\text{c}}$  = Total volume of coating in liters
- $D_{\text{w}}$  = Density of water, in grams per liter
- $D_{\text{voc}}$  = Density of VOC, in grams per liter
- $D_{\text{e}}$  = Density of exempt compounds, in grams per liter

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### Sales Weighted Average

The Sales Weighted Average (SWA) is an average value for grouped coatings, calculated by weighting the individual values by their sales. For grouped coatings in this survey, the SWA should be used to report the following entries on FORM 2 (Product Information): coating density, weight percent of solids, weight percent of volatile material, weight percent of water, weight percent of exempts, volume percent of solids, volume percent of water, and volume percent of exempts. The following equation can be used to calculate Sales Weighted Average.

$$SWA = \frac{((Value_1 \times Sales_1) + (Value_2 \times Sales_2) + (Value_n \times Sales_n))}{(Sales_1 + Sales_2 + Sales_n)}$$

Where:

$Value_{(1,2,...n)}$  = Coating characteristic values (e.g., coating density, VOC Actual, VOC Regulatory, etc.) for products 1,2,...n  
 $Sales_{(1,2,...n)}$  = Sales for products 1,2,...n

### Conversion Factors

VOC content:

To convert pounds/gallon to grams/liter multiply by 119.83

Density:

1 pound/gallon = 0.11983 kilograms/liter or 119.83 grams/liter

Specific Gravity :

To convert specific gravity to pounds/gallon multiply by 8.345

To convert specific gravity to grams/liter multiply by 1000

Units of Volume:

1 fl oz = 0.029574 liters

1 liquid pint = 0.47318 liters

1 liquid quart = 2 liquid pints = 0.94635 liters

1 gallon = 4 liquid quarts = 3.7854 liters

Units of Mass:

Unit	ounce(oz)	pound(lb)	gram(g)	kilogram(kg)
1 oz =	1	0.0625	28.3495	0.02834
1 lb =	16	1	453.592	0.45359

## U.S. RESIDENT POPULATION

United States Total = 293,655,404

STATE	POPULATION	%	RANK
Alabama	4,530,182	1.5	23
Alaska	655,435	0.2	47
Arizona	5,743,834	2.0	18
Arkansas	2,752,629	0.9	32
<b>California</b>	<b>35,893,799</b>	<b>12.2</b>	<b>1</b>
Colorado	4,601,403	1.6	22
Connecticut	3,503,604	1.2	29
Delaware	830,364	0.3	45
District of Columbia	553,523	0.2	(X)
Florida	17,397,161	5.9	4
Georgia	8,829,383	3.0	9
Hawaii	1,262,840	0.4	42
Idaho	1,393,262	0.5	39
Illinois	12,713,634	4.3	5
Indiana	6,237,569	2.1	14
Iowa	2,954,451	1.0	30
Kansas	2,735,502	0.9	33
Kentucky	4,145,922	1.4	26
Louisiana	4,515,770	1.5	24
Maine	1,317,253	0.4	40
Maryland	5,558,058	1.9	19
Massachusetts	6,416,505	2.2	13
Michigan	10,112,620	3.4	8
Minnesota	5,100,958	1.7	21
Mississippi	2,902,966	1.0	31
Missouri	5,754,618	2.0	17

STATE	POPULATION	%	RANK
Montana	926,865	0.3	44
Nebraska	1,747,214	0.6	38
Nevada	2,334,771	0.8	35
New Hampshire	1,299,500	0.4	41
New Jersey	8,698,879	3.0	10
New Mexico	1,903,289	0.6	36
New York	19,227,088	6.5	3
North Carolina	8,541,221	2.9	11
North Dakota	634,366	0.2	48
Ohio	11,459,011	3.9	7
Oklahoma	3,523,553	1.2	28
Oregon	3,594,586	1.2	27
Pennsylvania	12,406,292	4.2	6
Rhode Island	1,080,632	0.4	43
South Carolina	4,198,068	1.4	25
South Dakota	770,883	0.3	46
Tennessee	5,900,962	2.0	16
Texas	22,490,022	7.7	2
Utah	2,389,039	0.8	34
Vermont	621,394	0.2	49
Virginia	7,459,827	2.5	12
Washington	6,203,788	2.1	15
West Virginia	1,815,354	0.6	37
Wisconsin	5,509,026	1.9	20
Wyoming	506,529	0.2	50

X = Not Applicable

Source: Population Division, U.S. Census Bureau  
Annual Estimates of the Population for the United States: July 1, 2004 (NST-EST2004-01)  
Release Date: December 22, 2004

# **2005 ARCHITECTURAL COATINGS SURVEY**

## **PART C**

### **EXAMPLE OF COMPLETED SURVEY**





2005 California Architectural and Industrial Maintenance Coatings Survey		
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### **Product Example #3 – Multicomponent Solventborne Coating**

VOC content for multi-component coatings are as mixed, applied or fully reacted.

#### Entry #3

# of Products Grouped:	<b>3</b>	
Coating Code:	<b>19</b>	(Industrial Maintenance)
Substrate Code(s):	<b>10</b>	(Metal)
Interior/Exterior/Dual:	<b>D</b>	(Dual)
Vehicle Technology:	<b>SB</b>	(Solventborne)
Resin Code:	<b>7</b>	(Epoxy)
Single or Multi-Component:	<b>M</b>	(Multi-Component)
Coating Density, SWA:	<b>11.1</b>	(product 1 = 10.5 lbs/gal; product 2 = 11.5 ; product 3 = 11.0 )
Weight Percent of Solids, SWA:	<b>69.9</b>	(product 1 = 68%; product 2 = 71%; product 3 = 70%)
Wt. Percent of Volatile Matl, SWA:	<b>30.1</b>	(product 1 = 32%; product 2 = 29%; product 3 = 30%)
Volume Percent of Solids, SWA:	<b>65.1</b>	(product 1 = 64%; product 2 = 66%; product 3 = 65%)
VOC Actual, SWA:	<b>349</b>	(product 1 = 360 g/l; product 2 = 340 g/l; product 3 = 350 g/l)
VOC Regulatory, SWA:	<b>349</b>	(product 1 = 360 g/l; product 2 = 340 g/l; product 3 = 350 g/l)
Sales Information (> 1 qt):	<b>2,300</b>	(product 1 = 500 gallons; product 2 = 800; product 3 = 1000)

Notes:

1. "SWA" = Sales Weighted Average
2. VOC contents for multi-component coatings are as mixed, applied or fully reacted.

#### Sample Calculation:

$$\text{VOC Regulatory}^{\text{SWA}} = \frac{((\text{Value}_1 \times \text{Sales}_1) + (\text{Value}_2 \times \text{Sales}_2) + (\text{Value}_n \times \text{Sales}_n))}{(\text{Sales}_1 + \text{Sales}_2 + \text{Sales}_n)}$$

$$\text{VOC Regulatory}^{\text{SWA}} = \frac{((360 \text{ g/l} \times 500 \text{ gals}) + (340 \text{ g/l} \times 800 \text{ gals}) + (350 \text{ g/l} \times 1000 \text{ gals}))}{(500 + 800 + 1000 \text{ gals})} = 349 \text{ g/l}$$

Where:

$$\begin{aligned} \text{Value}_{(1,2,\dots,n)} &= \text{VOC Regulatory for products 1,2,\dots,n} \\ \text{Sales}_{(1,2,\dots,n)} &= \text{Sales for products 1,2,\dots,n} \end{aligned}$$

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## **Product Example #4 – Single Component Low Solids Coating**

### Entry #4

# of Products Grouped:	<b>1</b>	
Coating Code:	<b>21</b>	(Low Solids)
Substrate Code(s):	<b>13</b>	(Wood)
Interior/Exterior/Dual:	<b>I</b>	(Interior)
Vehicle Technology:	<b>WB</b>	(Waterborne)
Resin Code:	<b>15</b>	(Urethane, Polyurethane)
Single or Multi-Component:	<b>S</b>	(Single Component)
Coating Density:	<b>8.3</b>	
Weight Percent of Solids:	<b>8.0</b>	
Wt. Percent of Volatile Matl:	<b>92.0</b>	
Wt. Percent of Water:	<b>89.5</b>	
Volume Percent of Solids:	<b>7.5</b>	
Volume Percent of Water:	<b>90.0</b>	
VOC Actual:	<b>25</b>	
VOC Regulatory:	<b>25</b>	
Sales Information (< 1 qt):	<b>200</b>	
Sales Information (> 1 qt):	<b>500</b>	
Sales Information (total):	<b>700</b>	

For a low solids coating, VOC Regulatory is calculated in a different manner. The VOC Regulatory value for a low solids coatings is the same as the VOC Actual value, as shown below:

$$\text{VOC}_{\text{Actual}} = \frac{W_{\text{vm}} - W_{\text{w}} - W_{\text{e}}}{V_{\text{c}}}$$

$$\text{VOC}_{\text{Regulatory (Low Solids)}} = \frac{W_{\text{vm}} - W_{\text{w}} - W_{\text{e}}}{V_{\text{c}}}$$

Where:

- $W_{\text{vm}}$  = Total weight of volatile materials (VOC+water+exempt cmpds), in grams  
=(Wt. % Volatiles, 92/100)\*(Coating Density, 8.3 lb/gal)\*(454 grams/lb)\*(1 gal) =3467 g
- $W_{\text{w}}$  = Weight of water in the coating, in grams  
=(Wt. % Water, 89.5/100)\*(Coating Density, 8.3 lb/gal)\*(454 grams/lb)\*(1 gal) =3373 g
- $W_{\text{e}}$  = Weight of exempt compounds in the coating, in grams = 0 grams for this coating example
- $V_{\text{c}}$  = Total volume of the coating, in liters = 1 gallon or 3.7854 liters for this coating example

$$\text{VOC}_{\text{Actual}} = \text{VOC}_{\text{Regulatory (Low Solids)}} = \frac{3467 \text{ g} - 3373 \text{ g} - 0 \text{ g}}{3.7854 \text{ liter}} = 25 \text{ g/l}$$

<b>2005 California Architectural Coatings Survey</b>		
Air Resources Board, P.O. Box 2815 - Sacramento, CA 95812 - Attention: Stationary Source Division, Measures Assessment Branch		
Phone: 916.324.8023	FAX: 916.324.8026	www.arb.ca.gov/coatings/arch/survey/2005/survey.htm

**FORM 1**  
**Company Information – Reporting Year 2004**  
*(Instructions for completing FORM 1: See back side)*

Company Name: <b>Paintsales Company</b>		Web Site: <b>www.paintsales.com</b>																																						
Division: <b>Architectural</b>																																								
Address: <b>12345 Main St.</b>																																								
City: <b>Anytown</b>		State: <b>CA</b>		Zip: <b>12345-0000</b>																																				
Contact Person: <b>Mr. John Doe</b>			Title: <b>Environmental Manager</b>																																					
Phone: <b>(999) 999-9999</b>		FAX: <b>(999) 999-9998</b>		Email: <b>jdcoe@paintsales.com</b>																																				
<b>Type of Business</b> (check all that apply) <input checked="" type="checkbox"/> Manufacturer <input type="checkbox"/> Importer <input type="checkbox"/> Retail Distributor <input checked="" type="checkbox"/> Wholesale Distributor <input type="checkbox"/> Private Label Manufacturer <input type="checkbox"/> Toll Manufacturer <input type="checkbox"/> Other (Specify):		<b>Gross Annual Receipts (\$)</b> <i>For Calendar Year 2004</i>																																						
		<table border="1"> <thead> <tr> <th></th> <th>Company Wide</th> <th>California Company</th> <th>California Coatings Division</th> </tr> </thead> <tbody> <tr> <td>Less than 500,000</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Between 500,000 and &lt; 1 million</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Between 1 and &lt; 2 million</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Between 2 and &lt; 5 million</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Between 5 and &lt; 10 million</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Between 10 and &lt; 100 million</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Between 100 million and &lt; 1 billion</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Greater than or equal to 1 billion</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>				Company Wide	California Company	California Coatings Division	Less than 500,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Between 500,000 and < 1 million	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Between 1 and < 2 million	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Between 2 and < 5 million	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Between 5 and < 10 million	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Between 10 and < 100 million	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Between 100 million and < 1 billion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Greater than or equal to 1 billion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Between 100 million and < 1 billion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																					
Greater than or equal to 1 billion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																					
<b>Company Marketing Classification</b> (check all that apply) <input type="checkbox"/> International <input type="checkbox"/> National <input checked="" type="checkbox"/> Regional (e.g., western U.S.): <b>Southwestern U.S.</b> <input type="checkbox"/> California Statewide <input type="checkbox"/> California Local		<b>Employees</b> <i>For Calendar Year 2004</i>																																						
		<table border="1"> <tbody> <tr> <td>Less than 10</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Between 10 and &lt; 100</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Between 100 and &lt; 250</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Between 250 and &lt; 500</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Greater than or equal to 500</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>			Less than 10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Between 10 and < 100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Between 100 and < 250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Between 250 and < 500	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Greater than or equal to 500	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																
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Greater than or equal to 500	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																					
<b>Company Organization and/or Ownership</b> Parent Company Name: <b>Chemchem Corporation</b>																																								
Address:		<b>How did you determine California Year 2004</b> <b>Sales Volume?</b> (check all that apply)																																						
<b>1111 First Avenue</b>		<input type="checkbox"/> Direct California retail sales <input checked="" type="checkbox"/> Direct California wholesale distribution <input type="checkbox"/> Prorated from national retail sales <input type="checkbox"/> Prorated from national wholesale distribution <input type="checkbox"/> Other (explain):																																						
City: <b>Bigtown</b>																																								
State: <b>NY</b>																																								
Zip: <b>01234-0000</b>																																								
Contact Person: <b>Ms. Jane Doe</b>																																								
Title: <b>CEO</b>																																								
Phone #: <b>555-555-5555</b>																																								

**CERTIFICATION**

I hereby certify that, to the best of my knowledge and belief, all information entered on the Company Information Form (Form 1), Product Information Form (Form 2), and Ingredient Information Form (Form 3) is complete and accurate.

Name: <b>John Smith</b>	Title: <b>Senior Counsel</b>
Signature: <i>John Smith</i>	Date: <b>June 17, 2005</b>

**FORM 2**  
**Product Information – Reporting Year 2004**  
*(Instructions for completing FORM 2: See pages 10 through 12)*

Entry # :	<b>1</b>	Note: This entry # must also appear on your corresponding FORM 3.
Product Code:	<b>WX 3000</b>	
Product Name:	<b>WALCOAT</b>	

Physical & Other Data								
# of Products Grouped	Coating Category Code	Substrate Code(s)	Interior, Exterior, or Dual	Vehicle Technology	Resin Code(s)	Single or Multi-Component	Coating Density* C <sub>d</sub>	Averaging Program Product
	1-51	0-18	I, E, D	SB or WB	4-19	S or M	lbs/gal	Y or N
<b>1</b>	<b>27</b>	<b>9,13</b>	<b>I</b>	<b>WB</b>	<b>1</b>	<b>S</b>	<b>10.0</b>	<b>N</b>
Weight Percent of Volatile Material* W <sub>vm</sub> %	Weight Percent of Water* W <sub>w</sub> %	Weight Percent of Exempts* W <sub>e</sub> %	Weight Percent of Solids* %	Volume Percent of Solids* %	Volume Percent of Water* V <sub>w</sub> %	Volume Percent of Exempts* V <sub>e</sub> %	VOC Actual* grams/liter	VOC Regulatory* (Less Water) grams/liter
<b>58.0</b>	<b>54.0</b>	<b>0.0</b>	<b>42.0</b>	<b>40.0</b>	<b>56.0</b>	<b>0.0</b>	<b>48</b>	<b>109</b>

If necessary, use these equations with the factors above to calculate VOC Actual and VOC Regulatory.

$$\text{VOC Actual (g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{100} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

$$\text{VOC Regulatory (g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{(100 - V_w - V_e)} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

$$\text{VOC Regulatory (Low Solids, g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{100} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

See page 27, and 30 through 34 for more examples.

How were VOC Actual and Regulatory determined?		<input type="checkbox"/> U.S. EPA Method 24	<input type="checkbox"/> Formulation Data
2004 California Sales in Gallons (Include sales to distributors)			
Container Sizes One Quart or Less (gallons)	Container Sizes Larger Than One Quart (gallons)	Total Gallons (quart or less + > quart)	
<b>1,000</b>	<b>50,000</b>	<b>51,000</b>	

\* SWA – Report SWA “Sales Weighted Average” if grouping products.

Comments:
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**FORM 2**  
**Product Information – Reporting Year 2004**  
*(Instructions for completing FORM 2: See pages 10 through 12)*

Entry # :	<b>2</b>	Note: This entry # must also appear on your corresponding FORM 3.
Product Code:	<b>PX3000</b>	
Product Name:	<b>PRIMERCOAT</b>	

Physical & Other Data								
# of Products Grouped	Coating Category Code	Substrate Code(s)	Interior, Exterior, or Dual	Vehicle Technology	Resin Code(s)	Single or Multi-Component	Coating Density* C <sub>d</sub>	Averaging Program Product
	1-51	0-18	I, E, D	SB or WB	4-19	S or M	lbs/gal	Y or N
<b>2</b>	<b>30</b>	<b>3, 0</b>	<b>D</b>	<b>SB</b>	<b>3</b>	<b>S</b>	<b>12.1</b>	<b>Y</b>
Weight Percent of Volatile Material* W <sub>vm</sub> %	Weight Percent of Water* W <sub>w</sub> %	Weight Percent of Exempts* W <sub>e</sub> %	Weight Percent of Solids* %	Volume Percent of Solids* %	Volume Percent of Water* V <sub>w</sub> %	Volume Percent of Exempts* V <sub>e</sub> %	VOC Actual* grams/liter	VOC Regulatory* (Less Water) grams/liter
<b>30.1</b>	<b>0.0</b>	<b>3.9</b>	<b>69.9</b>	<b>65.5</b>	<b>0.0</b>	<b>3.6</b>	<b>380</b>	<b>395</b>

If necessary, use these equations with the factors above to calculate VOC Actual and VOC Regulatory.

$$\text{VOC Actual (g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{100} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

$$\text{VOC Regulatory (g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{(100 - V_w - V_e)} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

$$\text{VOC Regulatory (Low Solids, g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{100} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

See page 27, and 30 through 34 for more examples.

How were VOC Actual and Regulatory determined?		<input type="checkbox"/> U.S. EPA Method 24	<input type="checkbox"/> Formulation Data
2004 California Sales in Gallons (Include sales to distributors)			
Container Sizes One Quart or Less (gallons)	Container Sizes Larger Than One Quart (gallons)	Total Gallons (quart or less + > quart)	
<b>0</b>	<b>55,000</b>	<b>55,000</b>	

\* SWA – Report SWA “Sales Weighted Average” if grouping products.

Comments:
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**FORM 2**  
**Product Information – Reporting Year 2004**  
*(Instructions for completing FORM 2: See pages 10 through 12)*

Entry # :	<b>3</b>	Note: This entry # must also appear on your corresponding FORM 3.
Product Code:	<b>MX5000</b>	
Product Name:	<b>IMCOAT</b>	

Physical & Other Data								
# of Products Grouped	Coating Category Code	Substrate Code(s)	Interior, Exterior, or Dual	Vehicle Technology	Resin Code(s)	Single or Multi-Component	Coating Density* C <sub>d</sub>	Averaging Program Product
	1-51	0-18	I, E, D	SB or WB	4-19	S or M	lbs/gal	Y or N
<b>3</b>	<b>19</b>	<b>10</b>	<b>D</b>	<b>SB</b>	<b>7</b>	<b>M</b>	<b>11.1</b>	<b>Y</b>
Weight Percent of Volatile Material* W <sub>vm</sub> %	Weight Percent of Water* W <sub>w</sub> %	Weight Percent of Exempts* W <sub>e</sub> %	Weight Percent of Solids* %	Volume Percent of Solids* %	Volume Percent of Water* V <sub>w</sub> %	Volume Percent of Exempts* V <sub>e</sub> %	VOC Actual* grams/liter	VOC Regulatory* (Less Water) grams/liter
<b>30.1</b>	<b>0.0</b>	<b>0.0</b>	<b>69.9</b>	<b>65.1</b>	<b>0.0</b>	<b>0.0</b>	<b>349</b>	<b>349</b>

If necessary, use these equations with the factors above to calculate VOC Actual and VOC Regulatory.

$$\text{VOC Actual (g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{100} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

$$\text{VOC Regulatory (g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{(100 - V_w - V_e)} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

$$\text{VOC Regulatory (Low Solids, g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{100} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

See page 27, and 30 through 34 for more examples.

How were VOC Actual and Regulatory determined?			<input type="checkbox"/> U.S. EPA Method 24	<input type="checkbox"/> Formulation Data
2004 California Sales in Gallons (Include sales to distributors)				
Container Sizes One Quart or Less (gallons)	Container Sizes Larger Than One Quart (gallons)	Total Gallons (quart or less + > quart)		
<b>0</b>	<b>2,300</b>	<b>2,300</b>		

\* SWA – Report SWA “Sales Weighted Average” if grouping products.

Comments:
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**FORM 2**  
**Product Information – Reporting Year 2004**  
*(Instructions for completing FORM 2: See pages 10 through 12)*

Entry # :	<b>4</b>	Note: This entry # must also appear on your corresponding FORM 3.
Product Code:	<b>LS1000</b>	
Product Name:	<b>LOSOLCOAT</b>	

Physical & Other Data								
# of Products Grouped	Coating Category Code	Substrate Code(s)	Interior, Exterior, or Dual	Vehicle Technology	Resin Code(s)	Single or Multi-Component	Coating Density* C <sub>d</sub>	Averaging Program Product
	1-51	0-18	I, E, D	SB or WB	4-19	S or M	lbs/gal	Y or N
<b>1</b>	<b>21</b>	<b>13</b>	<b>I</b>	<b>WB</b>	<b>15</b>	<b>S</b>	<b>8.3</b>	<b>N</b>
Weight Percent of Volatile Material* W <sub>vm</sub> %	Weight Percent of Water* W <sub>w</sub> %	Weight Percent of Exempts* W <sub>e</sub> %	Weight Percent of Solids* %	Volume Percent of Solids* %	Volume Percent of Water* V <sub>w</sub> %	Volume Percent of Exempts* V <sub>e</sub> %	VOC Actual* grams/liter	VOC Regulatory* (Less Water) grams/liter
<b>92.0</b>	<b>89.5</b>	<b>0.0</b>	<b>8.0</b>	<b>7.5</b>	<b>90.0</b>	<b>0.0</b>	<b>25</b>	<b>25</b>

If necessary, use these equations with the factors above to calculate VOC Actual and VOC Regulatory.

$$\text{VOC Actual (g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{100} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

$$\text{VOC Regulatory (g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{(100 - V_w - V_e)} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

$$\text{VOC Regulatory (Low Solids, g/l)} = \frac{(W_{vm} - W_w - W_e)(C_d)}{100} \times \frac{119.83 \text{ g/l}}{1 \text{ lb/gal}}$$

See page 27, and 30 through 34 for more examples.

How were VOC Actual and Regulatory determined?		<input type="checkbox"/> U.S. EPA Method 24	<input type="checkbox"/> Formulation Data
2004 California Sales in Gallons (Include sales to distributors)			
Container Sizes One Quart or Less (gallons)	Container Sizes Larger Than One Quart (gallons)	Total Gallons (quart or less + > quart)	
<b>200</b>	<b>500</b>	<b>700</b>	

\* SWA – Report SWA “Sales Weighted Average” if grouping products.

Comments:
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