

# D1-6H Instructions

## Annual Material Usage and VOC Emissions Determination

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Form D1-6H provides a list of all paints, coatings, solvents, paint strippers, etc. that are being used by the facility by category for each year. This form permits the user to aggregate similar surface coating materials into groups (categories) based on use or similarity for submission to MCAQ to simplify the emissions calculation. Supporting data that must accompany the form or spreadsheet for MCAQ review is as follows:

- A copy of the SDS or product specification sheet specifying the coatings data for the highest density and highest VOC product(s) in a category; and
  - Rationale for the products selected for each category and a listing of the products by name in each category.
- Submit this form for each year that you have complete coatings usage data. Separate forms must be submitted for solvent-based coatings and for waterborne coatings if both are used at a facility during the year. The electronic version of the form is in Excel spreadsheet format. The spreadsheet will calculate emissions based on the usage data input for each year.*
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**YEAR** – Enter the year for which the data is supplied.

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**TYPE OF COATING CHECKBOXES** – Check whether the information presented on the spreadsheet is for solvent-based or waterborne coatings. Separate sheets are required for each type of coating for each year if applicable.

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**CATEGORY NAME** – Use the categories displayed to enter usage data for the year. If an appropriate category is not listed, use the “Other” boxes and enter a new category name descriptive of the materials included.

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**HIGHEST DENSITY** – For each category, enter the density in pounds per gallon for the heaviest material included in the category.

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**HIGHEST VOC CONTENT** - For each category, enter the VOC content in pounds per gallon or % by weight for the material with the highest VOC included in the category in the appropriate column. One entry is required. The facility may select the unit of measure that is most readily available or convenient for emission calculations. This information can be obtained from the SDS or from the vendor.

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**ANNUAL USAGE** – Enter the total annual usage in pounds or gallons by category of all the materials aggregated into each category. The facility may select the unit of measure that is most readily available or convenient for the emission calculations.

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### NOTES AND CALCULATIONS:

If the spreadsheet is used, the emissions will be calculated automatically. If not, the emissions calculation is as follows:

1. For usage supplied in gallons/year:  
Emissions (lb/yr) = usage (gal/yr) X VOC content (lb/gal); or  
Emissions (lb/yr) = usage (gal/yr) X Density (lbs/gal) X VOC content (% by weight) / 100
2. For usage supplied in pounds /year:  
Emissions (lb/yr) = usage (lbs/yr) X VOC content (lb/gal) / Density (lbs/gal); or  
Emissions (lb/yr) = usage (lbs/yr) X VOC content (% by weight) / 100
3. Emissions (tons/yr) = Emissions (lbs/yr) / 2000.

If the facility has detailed records of material usages per year using actual VOC content for each coating to calculate the VOC emissions, this data may be submitted in lieu of this form.

SECTION D

D1-6H

Annual Material Usage and VOC Emissions Determination

Year:

2017

Type of coating:  Solvent-based Coatings  Waterborne Coatings

Coating/Material Category	Highest Density	Highest VOC Content		Annual Usage		VOC Emissions	
	Pounds/gallon	Pounds/gallon	% By weight	Gallons	Pounds	Pounds/year	Tons/year
Base Coats	11.99	5		100		833.61	0.17
Clear Coats	10.46	4.89				244.50	0.12
Primers	9.62		48	20		92.35	0.05
Reducers							
Clear Hardener/Activator							
Primer Hardener/activator							
Single Stage Enamels	13.46		40	400		2153.60	1.08
Thinners							
Degreasers							
Paint Removers							
Pretreatments							
Other (Specify)							
<b>Totals</b>						<b>2824.06</b>	<b>1.41</b>

Required data

Required data in one or the other units