



COATING and SOLVENT USAGE CHART – Rule 1151

COMPANY NAME: _____ PERMIT NUMBER: _____ % EFFICIENCY OF CONTROL EQUIPMENT _____

ADDRESS: _____ PREPARED BY (Print Name): _____

TELEPHONE NUMBER: (____) _____ SIGNATURE: _____

PERIOD: FROM _____ THROUGH _____ 20____ TITLE: _____

CONVERSION FACTORS:

16 Fluid Oz = 1 Pint 4 Quarts = 1 Gallon 1 lb = 454 Grams
 2 Pints = 1 Quart 1 Gallon = 3.785 Liters 1 lb/gal = 120 Grams/Liter

FORM 109 MUST BE COMPLETED WITH THIS CHART. SEE BACK PAGE OF THIS FORM FOR ADDITIONAL INSTRUCTIONS

DATE (MM/DD) (a)	PAINTER'S INITIALS (b)	COATING			THINNER/REDUCER			CATALYST/HARDENER/ADDITIVE									TOTAL VOC EMISSIONS (u)				
		NAME, NUMBER, COLOR, TYPE (c)	VOC OF COATING LESS WATER & LESS EXEMPT SOLVENTS (lb/gal) (d)	VOC OF MATERIAL (lb/gal) (e)	NAME, NUMBER, COLOR, TYPE (f)	VOC OF THINNER LESS WATER & LESS EXEMPT SOLVENTS (lb/gal) (g)	VOC OF MATERIAL (lb/gal) (h)	NAME, NUMBER, COLOR, TYPE (i)	VOC OF HARDENER LESS WATER & LESS EXEMPT SOLVENTS (lb/gal) (j)	VOC OF MATERIAL (lb/gal) (k)	MIX RATIO (m)	VOC OF COATING (AS APPLIED) LESS WATER & LESS EXEMPT SOLVENT (lb/gal) (n)	VEHICLE GROUP NUMBER I > 8600 lb: II <=8600 lb (o)	TYPE OF REPAIR JOB (p)	AMOUNT USED (gal) (q)	VOC OF MATERIAL (AS APPLIED) (lb/gal) (r)		VOC EMISSIONS (lb/day) (s)	CLEAN-UP SOLVENTS TOTAL VOC EMISSIONS (lb/day) (t)		

INSTRUCTIONS for COATING and SOLVENT USAGE CHART RULE 1151 – (Form 109-1151)

- (a) **DATE** – Record the date (MM/DD) when coating operation occurred. If no coating operation occurred on a particular day, write the date and under column (c) write “NONE”. If there is more than one day of no coating operation, write the inclusive dates and again “NONE” under column (c).
- (b) Record the initials of the painter or equipment operator.

COATING is a material which is applied to a surface and which forms a film in order to beautify and/or protect such surface, e.g. paint, primer.

- (c) **NAME, TYPE, CODE, COLOR** – Separately write the name, type code, and color of each paint or primer used.
- (d) **VOC of COATING LESS WATER and LESS EXEMPT SOLVENTS** - Enter the pounds of Volatile Organic Compound (VOC) in one gallon of material less water and less exempt solvents, (lb/gal). This information can be obtained from the container, or the MSDS or Data Sheet from the supplier.
- (e) **VOC of MATERIAL** – Enter the pounds of VOC in one gallon of the material, (lb/gal). This information can be obtained from the container or the MSDS or Data Sheet from the supplier.

THINNER/REDUCER is a material, usually liquid, added to the coating to lower its viscosity.

- (f) **NAME, CODE** – Record the name and code of the thinner/reducer used on the same line you recorded the item under (c).
- (g) **VOC of THINNER (REDUCER) LESS WATER and LESS EXEMPT SOLVENTS** – Enter the VOC of the thinner less water and less exempt solvents, (lb/gal). This information can be obtained from the container or the MSDS or Data Sheet from the supplier.
- (h) **VOC of MATERIAL** – Enter the VOC of the thinner, (lb/gal). This information can be obtained from the container, or MSDS or Data Sheet from the supplier.

CATALYST/HARDENER/ADDITIVE

- (i) **NAME, CODE** – Record the name and code of the catalyst, hardener, or additive used on the same line you recorded the items under (c) and (f).
- (j) **VOC OF HARDENER (CATALYST) LESS WATER AND LESS EXEMPT SOLVENTS** – Enter the VOC of the hardener less water and less exempt solvents, (lb/gal). This information can be obtained from the container, or the MSDS or Data Sheet from the supplier.
- (k) **VOC of MATERIAL** – Enter the VOC of the hardener, (lb/gal). This information can be obtained from the container, or MSDS or Data Sheet from the supplier.

- (m) **MIX RATIO** – Enter the mix ratio for the paint, thinner and hardener as recommended by the manufacturer, e.g. 8:4:1 for a coating mixture of 8 parts paint, 4 parts thinner, and 1 part hardener.
- (n) **VOC of COATING (as applied) LESS WATER AND LESS EXEMPT SOLVENT** – Enter the VOC of the coating less water and less exempt solvent, as applied, (lb/gal). This information can be obtained from the container, or MSDS or Data Sheet from the supplier.

For a Multistage Topcoat System, i.e. any basecoat/clearcoat topcoat, or any three-stage topcoat system, manufactured as a system and used as specified by the manufacturer, calculate the VOC of the Multistage System VOC_{ms} as follows:

$$VOC_{ms} = \frac{VOC_{bc} + 2VOC_{cc}}{3}, \text{ or}$$

$$VOC_{ms} = \frac{VOC_{bc} + VOC_{mc} + 2VOC_{cc}}{4}$$

where: VOC = VOC content, less water and less exempt compounds

bc = base coat

mc = midcoat

cc = clearcoat

ms = multistage system

Enter the calculated value and write (ms) underneath it.
Example:

665
(ms)

- (o) **VEHICLE GROUP** – Enter “I” if the Gross Vehicular Weight (GVW) of the mobile equipment being coated on is greater than 8,600 lbs.; “II” if the GVW is equal or less than 8,600 lbs.
- (p) **TYPE OF REPAIR JOB** – Indicate the type of repair job done on the vehicle, e.g. spot repair, panel repair, etc.
- (q) **AMOUNT USED** – Record the amount of coating mixture used, (gal).
- (r) **VOC OF MATERIAL (as applied)** – Enter the VOC of the coating mixture as applied, (lb/gal). You may use the information obtained from the container, or MSDS or Data Sheet from the supplier if your mix ratio is as recommended by the manufacturer; otherwise, use the following example as a guide to calculate the VOC of material.

PRODUCT	VOC of MATERIAL (lb/gal)	MIX RATIO
Paint	2.5	8
Reducer	3.0	4
Hardener	1.0	1

Step #1: Multiply VOC of Material by Mix Ratio as follows:

2.5	X	8	=	20.0
3.0	X	4	=	12.0
1.0	X	1	=	<u>1.0</u>
TOTAL				33.0

Step #2: Add the Mix Ratio: 8 + 4 + 1 = 13

Step #3: Divide TOTAL VOC by Sum of Mix Ratio:

$$33.0 \div 13 = 2.54 \text{ lb/gal}$$

- (s) **VOC EMISSION**, (lb) = (q) X (r)
- (t) **CLEAN-UP SOLVENT**: TOTAL VOC EMISSIONS (lb/gal). Transfer the day's total VOC emissions from column “CS” on Form 109-CS (CLEANING/CLEAN-UP SOLVENT USAGE CHART) into column(s).
- (u) **TOTAL VOC EMISSIONS**, (lb/day) = (s) + (t)

AIR POLLUTION CONTROL EQUIPMENT

If this equipment is vented to an air pollution control device, record the % overall efficiency of the control equipment. The overall efficiency = the capture efficiency X the destruction efficiency. These two values must be obtained from the most recent District approved source test.

Multiply the applicable VOC emission terms by (1 - % overall efficiency) to calculate the total VOC in lbs/day, (u). Therefore, if (s) or (t) are vented to APC equipment, multiply the applicable terms by (1 - % overall efficiency). Sum these values and enter them into (u).

VOC reductions from use of APC equipment are based on the conditions established in the source test, e.g. inlet and outlet sites, and conditions for measuring VOC content.

NOTE: Daily usage records for the most recent two (2) year period shall be retained on the premises and be made available to the District representative during an inspection or upon request. Copies of these records shall be supplied to the District representative upon request.