



## Form B3 - Permitted Emissions From the Use of Organics

**Note:** Methyl acetate, acetone, ethane, perchlorobenzotrifluoride and volatile methylated siloxanes listed in Rule 102 are classified as VOC exempt compounds and should not be reported on Form B3 as Organic Gases. Specific Organics, defined as sixteen organic compounds listed in Appendix B of the General Instruction Book, should be reported on Form B3. **Do not report any Organics other than these sixteen compounds as Specific Organics.** Any other chlorofluorocarbons not classified as Specific Organics are to be reported on Form TAC. **Report the total VOC emissions from your material on this form including any TACs/ODCs which are considered VOC (e.g., benzene). Report any TAC/ODC contained in the material (including those which are VOC) on Form TAC. If the organic solvent in the material is exclusively TAC or ODC and not VOC (i.e., 1,1,1 TCA, Perc., Methylene Chloride, and CFC/Freons), you must only use Form TAC to report these emissions.**

**Facility Name and ID No.:** Please fill in your facility name and facility ID number in the designated spaces, exactly as indicated on Form X (Signature Sheet) in your package.

**Material Code:** For each organic material used (solvents, coatings, inks, etc.), find the 3 digit material code in Appendix B of the General Instruction Book, and write it in column (a). Each material must be identified by its material code and reported separately. For example, if you thin a coating prior to application, report the coating on one line and the thinner on a separate line. If you cannot find the code for the material you used, enter one of the "Other" material codes (991, 992, 993, 995, or 996). DO NOT report one of the "Other" material codes for materials with known material codes.

**Activity Code:** In column (b) enter the appropriate activity code from the chart in the bottom-left portion of the form that corresponds to the type of activity associated either with solvent usage or coatings. There may be more than one entry for each material (e.g., if a solvent is used not only in a cleaning activity but also as a thinner in a coating it must be listed twice, once for each activity). If you have selected activity code "999", please specify the type of activity in column (b).

**Material Description, Organic TAC/ODC (Y/N), Rule Number and Usage:** Information about each organic material used can be found in the Material Safety Data Sheet (MSDS) or other technical data sheet from your vendor. Describe the material in column (c), using the manufacturer's material name as shown on the MSDS. In column (d), enter "Y" (for Yes) or "N" (for No) to indicate whether the material reported on each row contains any organic TAC or ODC. **Enter the rule number applicable to your primary operation for the listed material in column (e).** Appendix D of the General Instruction Book lists source-specific VOC Rules for easy reference. Report the usage (for six-month: 7/1/07-12/31/07) in column (f) and indicate in column (g) whether the usage reported in column (f) is in pounds or gallons. If you are planning to claim Waste Credit for materials reported on Form B3, please keep in mind that there should be a direct correspondence between materials listed on Form B3 and materials listed for waste credits on Form W.

**Emission Factor or VOC Content:** In column (h) enter the emission factor or VOC content for the material. **Please use consistent units. For example, if the material is in gallons, the emission factor should be in lbs/gal; if the material usage is in pounds, the emission factor should be in lbs/lb.** Use the VOC content (which determines the emission factor) from your MSDS and submit a copy of the MSDS. When determining the emission factor for Organic Gases, make sure the VOC content in the MSDS does not include exempt solvents or Specific Organics.

If the MSDS does not include the VOC content, you can calculate the VOC content based on the weight percent of VOC compound reported on the MSDS. Using the weight percentage (W%) of VOC compounds and density or specific gravity (from the MSDS), the emission factor can be calculated as:

$$\text{VOC (lbs/gal)} = \text{W\%/100} \times \text{Density (lbs/gal)} \quad \text{where: Density} = \text{Specific gravity} \times 8.34 \text{ lbs/gal} \quad \text{and W\%} = \text{Total weight percent of VOC compounds}$$

Default emission factors (listed in the Appendix B of the General Instruction Book for common Organics) may be used only when actual VOC data from MSDS is not available or cannot be obtained from the manufacturer. The use of default emission factors may result in overestimation of emissions.

For **lithographic inks**, calculate VOC emissions based on the VOC content or the lithographic oil content reported on the MSDS. To calculate the emission factor multiply the VOC content by (1 - Retention Factor (RF)). RF for different drying methods are as follows: Non-Heat Set = 0.95, and Heat Set = 0.2. Refer to equations and guidelines specified in the AQMD's "VOC Emissions Calculation Methodology for Lithographic Printing Inks" dated June 2001.

**Overall Control Efficiency:** If your facility does not have any control equipment, enter "0.00" in column (i). If your facility has installed control equipment to reduce the organic emissions (e.g., afterburner, carbon adsorber, etc.), determine the Overall Control Efficiency and enter it in column (i). Attach the results page from the most recent source test to substantiate control efficiency. The Overall Control Efficiency represents the emission portion that is captured and destroyed by control equipment. To calculate the Overall Control Efficiency use the formula: Overall Control Efficiency = capture efficiency X destruction efficiency

Use decimal fraction to report efficiencies. If your Control Efficiency is in percent, convert percent to decimal fraction (e.g. 0.85 for 85%, 0.925 for 92.5%). Please note that control efficiency is not the same as the transfer efficiency or the retention factor.

If you are planning to apply for Waste Credit for material that is used in a process vented to a control device, please refer to the additional instructions for material reporting under Frequently Asked Questions of the General Instruction Book.

**Emissions:** To calculate emissions from Organic Gases, column (j), or Specific Organics, column (k), use the following formula:

(Usage) gal X (Emission Factor or VOC) lbs/gal X (1 - Overall Control Efficiency) OR (Usage) lbs X (Emission Factor or VOC) lb/lb X (1 - Overall Control Efficiency) OR

(Column f) X (Column h) X (1 - Column i) = (Column j\* or k\*) **\*Total emissions are either Organics (column j) or Specific Organics (column k), they can not be both for a single row.**

Total the emissions for column (j) and column (k) (on each page) and enter the total on Line 1, Subtotal Emissions (lbs).

**Net Emissions:** If you use more than one Form B3, in the space provided indicate the page number and the total number of pages of Form B3. For example, if you use 8 forms, indicate in the boxes - page 1 of 8, page 2 of 8, etc. Complete Lines 2, 3, 4 and 5 only on the last page of Form B3. On Line 2 enter the sum of emission subtotals from all B3 forms. On Line 3 enter the waste credit (lbs) from Form W. To calculate Net Emissions subtract Line 3 from Line 2 and enter the value on Line 4. To convert the net emissions to tons, divide pounds by 2000, round to two (2) decimal places and enter the net emissions (tons) on Line 5. Transfer the net emissions (tons) to Form C, Line 3 in the respective columns.