

**D02 – PORTABLE DEGREASING, UNCONTROLLED CALCULATION METHODS**

**CALCULATION METHODS**

Annual Emissions:  $E_a = (U_a - W_a) \text{ [lbs/year]} \times D \text{ [lbs/gal]} \times C_i \text{ [lbs/lb]} \times (1 - e) \text{ [%]}$

Hourly Emissions:  $E_h = E_a / H \text{ [hours/year]}$

Notes:

- \* Safety Kleen emission factors based on a 1996 District study.
- \* Assume no reaction, conversion, or breakdown of the degreasing solvent during use.
- \* The average daily emission rates developed by the District should be used only when representative solvent throughput records are unavailable.
- \* All similar portable degreasing units using the same solvent should be reported as a single material unless emissions are being calculated according to mass balance procedures.
- \* Emission calculations are uncontrolled. Capture and removal efficiencies must be identified for controlled processes.
- \* This procedure assumes 8760 hours/year (365 days/year x 24 hours/day) of operation with the lid open.
- \* For variable definitions and more details, please check: (<https://www.sdapcd.org/content/sdapcd/permits/toxics-emissions/calculation-procedures.html>)

| POLLUTANT                        | DISTRICT EMISSION FACTORS (Weight Percent) | REFERENCE DOCUMENT | AP 42-FACTOR | (UNITS) | COMMENTS                       |
|----------------------------------|--|--------------------|--------------|---------|--------------------------------|
| NOX                              |  |                    |              |         |                                |
| CO                               |  |                    |              |         |                                |
| SOX                              |  |                    |              |         |                                |
| TOG                              | 100.00                                     |                    |              |         | Based on a 1996 District study |
| ROG                              | 99.35                                      |                    |              |         | Based on a 1996 District study |
| TSP                              |  |                    |              |         |                                |
| PM10                             |  |                    |              |         |                                |
| DICHLOROBENZENES (MIXED ISOMERS) | 0.20                                       |                    |              |         | Based on a 1996 District study |
| ETHYL BENZENE                    | 0.50                                       |                    |              |         | Based on a 1996 District study |
| GLYCOL ETHERS, UNSPECIFIED       | 1.00                                       |                    |              |         | Based on a 1996 District study |
| METHYLENE CHLORIDE               | 0.15                                       |                    |              |         | Based on a 1996 District study |
| NAPHTHALENE                      | 3.00                                       |                    |              |         | Based on a 1996 District study |
| PERCHLOROETHYLENE                | 0.25                                       |                    |              |         | Based on a 1996 District study |
| TOLUENE                          | 0.25                                       |                    |              |         | Based on a 1996 District study |

| POLLUTANT             | DISTRICT EMISSION FACTORS (ppmw) | REFERENCE DOCUMENT | AP42-FACTOR | (UNITS) | COMMENTS                       |
|-----------------------|----------------------------------|--------------------|-------------|---------|--------------------------------|
| 1,1,1-TRICHLOROETHANE | 0.25                             |                    |             |         | Based on a 1996 District study |
| XYLENES               | 1.00                             |                    |             |         | Based on a 1996 District study |

Last Updated on 02/09/2023 By B. Wong