

Area Source Methodology
Coatings & Related Process Solvent – Industrial Coatings (Unspecified)
Northern Sierra Air Quality Management District

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EMISSION INVENTORY CODE (EIC)

230-995-9000-0000 (CES 46748) – Industrial Coatings (Unspecified)

CODE DESCRIPTION

Summary Code 230 - Aggregated Stationary Sources, Cleaning and Surface Coatings
Source Category 995 - Coatings & Related Process Solvents
Materials Description 9000 - Coatings (Unspecified)
Sub-category 0000 - Unspecified

DISCUSSION

This methodology was largely adapted from the Sacramento Metropolitan AQMD methodology for this emission inventory category, prepared by Hao Quinn, August 20, 2002.

The *unspecified industrial coating* category accounts for emissions from product finishes for original equipment manufacturers (OEM) not covered by other industrial coatings categories such as architectural and construction/maintenance coatings (EIC summary code 520), metal parts and products coatings (source category 230), wood furniture and fabricated products coatings (source category 232), and auto refinishing coatings (source category 218). It also excludes oil-based coatings (EIC materials description 9100); allied products for thinning and cleanup solvent uses (source category 240); and special purpose coatings such as traffic marking paints (EIC 510-500-9077-0000). Following is a list of all categories that are included from the Census Bureau's Industrial Report for Paint and Allied Products, 2002 (US Census Bureau 2003). The product code numbers from the Census Bureau's report are given for easy reference.

<u>Product Code</u>	<u>Product Description</u>
3255104141	Other transportation equipment finishes, including aircraft and railroad
3255104211	Appliance, heating equipment, and air conditioner finishes
3255104225	Container and closure finishes
3255104229	Machinery and equipment finishes, including road building equipment and farm implements
3255104239	Electrical insulating coatings
32551042**	Powder coatings, misc. (includes six subcategories)
3255104265	Other industrial product finishes
3255104YWV	Product finishes for OEM, excluding marine coatings, not specified

Nationwide OEM coating consumption figures were obtained from the 2002 Industrial Report for Paint and Allied Products (US Census Bureau 2003), plus imports and minus exports as listed in that same document, and corrected for actual usage by a consumption factor of about 95.84% of production, which is also contained in that report.

Nevada County OEM coating usage is estimated by multiplying the total nationwide consumption by the ratio of Nevada County to national employment in the Manufacturing Sector as given in the 1997 Economic Census (US Census Bureau 2003). 2002 economic data will become available by 2007.

Emissions are calculated by multiplying the estimated *unspecified industrial coating* consumption by the California Air Resources Board's TOG emission factor of 3210 lb/1000 gallons (CARB 1997).

ACTIVITY DATA SOURCE:

Census Bureau, 2002 Industrial Report for Paint and Allied Products.

EMISSION FACTOR SOURCE:

California Air Resources Board, Area Source Methodology, Coatings & Related Process Solvents – Industrial Coatings

TEMPORAL INFORMATION:

Daily Activity: 8 hours/day

Weekly Activity: 5 days/week

Annual Activity: 260 days/year

MOST RECENT UPDATE TO THIS METHODOLOGY:

December, 2004

GROWTH PARAMETER:

Census Bureau, 2002 Industrial Report for Paint and Allied Products

EMISSION SUMMARY (2002-ANNUAL AVERAGE TONS/DAY) UNRECONCILED
EIC 230-995-9000-0000 (CES 46748): 0.119 tons per day TOG

NEEDED CLARIFICATIONS/CORRECTIONS TO CURRENT METHOD

None in the Northern Sierra AQMD. However, if this methodology is employed in some districts there may be a chance for double-counting due to the inclusion of emissions from permitted stationary source coating operations in the stationary source inventory. Any overlap in the Northern Sierra AQMD is negligible.

FUTURE PLANS FOR METHOD UPDATE/REVISION

None

SAMPLE CALCULATION

1997 National manufacturing employees: 16,805,127

1997 Nevada County manufacturing employees: 2,311

Ratio of Nevada County manufacturing employees to National employees: 0.00013752

National consumption (production of 206,109,000 gal x consumption factor of 0.95842799):
197,540,635 gal.

Thus, national consumption x County employee ratio = Nevada County consumption
197,540,635 gal x 0.00013752 = 27,166 gal.

And, Nevada County consumption x TOG emission factor = Annual lbs
27,166 gal x 3210 lbs/1000 gal = 87,203 lbs (43.6 tons).

Or, 0.119 tons per day.

REFERENCES

US Census Bureau. 2003 July. 2002 Industrial Report for Paint and Allied Products. MA325F(02)-1. <http://www.census.gov/industry/1/ma325f02.pdf>

US Census Bureau. 2001 February. 1997 Economic Census: Summary Statistics for Nevada County, CA. 1997 NAICS Basis. <http://www.census.gov/epcd/ec97/ca/CA057.HTM>

US Census Bureau. 2004 March. 2002 Economic Census: Table 1. Advance Summary Statistics for the United States. 2002 NAICS Basis.
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US Census Bureau. 2004 March. Sector 31-33 Manufacturing.
<http://www.census.gov/econ/census02/naics/sector31/31-33.htm>

California Air Resources Board (CARB). Updated February 1990; Reissued October 1997. Area Source Methodology, Section 3.5: Coatings & Related Process Solvents – Industrial Coatings
<http://www.arb.ca.gov/ei/areasrc/fullpdf/full3-5.pdf>

Sacramento Metropolitan Air Quality Management District. 2002 August. Area Source Methodology, Section XX: Coatings & Related Process Solvent – Industrial Coatings (Unspecified) http://www.arb.ca.gov/ei/areasrc/districtmeth/Sac/AS_INDCOAT02_230.pdf