

**Final Background Document
on the sector**

Other non industrial use of paints

Prepared in the framework of EGTEI

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Summary

1. Aim of the document (p.3)

This document is developed in parallel with the one on “architectural and domestic use of paint”.

2. Definition of Reference Installation (p.3)

No reference installation is defined in this chapter. This sector is described by the total consumption of coatings in each country (see paragraph 3).

3. Data to be provided by national experts for the completion of the database for their own country (p.3)

Table 3.1: Consumption of coatings and cleaning solvents [t of products / y]

Product consumptions (t / y) have to be estimated from 2000 to 2020.

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Other non industrial use of paints

SNAP: 06 01 09 or NFR 3 A Paint Application

This sector concerns all the types of paints which are not studied in the document “Architectural and domestic use of paints”.

ACTIVITY: total consumption of paints (tonnes of paints consumed / year)

POLLUTANT CONSIDERED: VOC

1 Aim of the document

In the current stage of development of the RAINS model [1], only architectural and domestic uses of paints are considered under the category “Non industrial use of paints”.

These categories have been studied together in the framework of EGTEI because the same regulation will apply to both sectors [2]. The scope of the proposal of Directive concerns the following subcategories:

- ✓ Matt coatings for interior walls and ceilings,
- ✓ Glossy coatings for interior walls and ceilings,
- ✓ Exterior walls of mineral substrate,
- ✓ Interior/exterior trim and cladding paints for wood and metal,
- ✓ Interior/exterior trim varnishes and woodstains,
- ✓ Minimal build woodstains,
- ✓ Primers,
- ✓ Binding primers,
- ✓ One-pack performance coatings,
- ✓ Two-pack performance coatings,
- ✓ Multicoloured coatings,
- ✓ Decorative effect coatings.

All other types of paints (i.e. protective coatings for example) are not considered. The present working document on “other non industrial use of paints” can be used by national experts to take into account all the paints not studied in the document “Architectural and domestic use of paint”.

No data on costs are presented in this document which only focuses on the VOC emission part.

2 Definition of Reference Installations

No reference installation is defined in this chapter. This sector is described by the total consumption of paints in each country (see Chapter 3).

3 Data to be provided by national experts for the completion of the database for their own country

To be filled in by national experts

- Consumptions (t products consumed / y) in 2000, 2005, 2010, 2015, 2020. Some default values for the confidence interval are given. They can be used by the Party if no data are available.

Total activity corresponds to the consumption of coatings only (t of coatings / y).

Table 3.1: Consumption of coatings and cleaning/diluting solvents [t of products / y]

Products	2000	CI%	2005	CI%	2010	CI%	2015	CI%	2020	CI%
Coatings										
Cleaning/diluting solvents										
Default values		10		20		50		100		100

Product consumptions (t products consumed / y) have to be estimated from 2000 to 2020.

Table 3.2: Average solvent content of the products (weight %)

This information depends on the types of products used at a country level. These concentrations might evolve in the future so the possibility is given to national experts to modify this parameter.

Cleaning/diluting products are considered to be pure solvents (100%). The solvent content is not assumed to differ in the future but their consumption should evolve with the consumption of paints.

Products	2000	CI%	2005	CI%	2010	CI%	2015	CI%	2020	CI%
Coatings										
Diluting/cleaning solvents	100		100		100		100		100	

4 Derivation of Emission Factors

Emission factors at a country level (t VOC / t paints consumed) depend on the shares of use of the different coatings (solvent based, water-based and high solid coatings).

Emission factors will be higher where solvent based product sales are more important.

Country specific emission factors will be calculated by the tool for the years 2000 to 2020 (from inputs of tables 3.1 and 3.2).

Table 4.1: Emission factor calculations

Emission factor [t VOC / t paints]
(consumption of coatings [t / y] × % of solvents + consumption of cleaning/diluting solvents) / Total activity [t of coatings / y]

Basic assumption:

- Application and drying processes are not enclosed and all solvents used are emitted into the air.

5 Reference

- [1] Z. KLIMONT; M. AMANN; J. COFALA. Estimating costs for Controlling Emissions of Volatile Organic Compounds (VOC) from Stationary Sources in Europe. Interim Report IR-00-51. IIASA. August 1, 2000. http://www.iiasa.ac.at/~rains/voc_review/voc_ir-00-51.pdf
- [2] Proposal for a Directive of the European Parliament and of the Council on the limitation of emissions of volatile organic compounds due to the use of organic solvents in decorative paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC COM/2002/0750 final.