Malé Declaration 1ST emissions inventory workshop

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Part 5 – Solvent and other product use (Sector 7)

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Malé Declaration on Control and Prevention of Air Pollution and Its Likely Transboundary Effects for South Asia

Solvent and other product use

In some countries (but not many in Africa), the use of solvents and other products (paints, varnishes, glues) can be a major source of non-methane volatile organic compound (NMVOC) emissions. Major sources are:

- ❖ Paint application (solvent based)
- ❖ Paint application (water based)
- ❖ Metal degreasing
- ❖ Dry cleaning of fabrics
- ❖ Chemical products manufacture, and
- ❖ Other use of solvents

Solvent and other product use

Process	B Units for activity rate	C NMVOC emission factor (kg NMVOC/t) Default
Paint application (solvent based)		
Industrial	tonnes paint sold	750^a
Decorative	tonnes paint sold	300^d
Unknown	tonnes paint sold	750
Paint application (water based)	tonnes paint sold	$33 [D]^d$
Metal degreasing	tonnes solvent consumed	$1000 [C]^d$
Dry cleaning of fabrics	tonnes solvent consumed	$1000 [D]^d$

Solvent and other product use

Process	B Units for activity rate	C NMVOC emission factor (kg NMVOC/t) Default
Chemical products manufacture:		
Polyester resins		
manual lay-up	tonnes of resin	40[b]
closed system	tonnes of resin	10[b]
Polyvinylchloride	tonnes product	40[b]
Polyurethane		
rigid foam	tonnes product	15[b]
soft foam	tonnes product	25
Polystyrene foam	tonnes product	15[b]
Rubber processing	tonnes product	15[b]
Paint and varnish	tonnes product	15[b]
Ink	tonnes product	30[b]
Glue	tonnes product	20[b]
Adhesive tape	m^2 product	60[b]

Solvent and other product use

Process	B Units for activity rate	C NMVOC emission factor (kg NMVOC/t) Default
Other use of solvents:		
Glass/mineral wool enduction	tonnes product	0.8[b]
Printing industry		
Lithography (offset)	tonnes ink consumed	350[b]
Rotogravure (heliography)	tonnes ink consumed	100[b]
Packaging (helio-flexo)	tonnes ink consumed	1200[b]
Fat, edible and non-edible oil (solvent extraction)	tonnes oil processed	18[b]
Application of glue and adhesives	tonnes product used	600[b]
Other (please specify)		