

Table SI-1. Fractions of EU tonnages released in specific Environmental Release Categories, spERC (Cefic, 2012)

SPERC #	SPERC Name	Glossary text	Release fraction to air	Release fraction to waste water	Release fraction to soil
1	AISE SPERC 2.1.a.v1	AISE SPERC 2.1.a.v1 - AISE 1 - Formulation of Detergents/Maintenance Products: Granular Detergent -Regular (large scale)	2.0E-04	1.0E-04	0.0E+00
2	AISE SPERC 2.1.b.v1	AISE SPERC 2.1.b.v1 - AISE 2 - Formulation of Detergents/Maintenance Products: Granular Detergent -Regular (medium scale)	2.0E-04	1.0E-03	0.0E+00
3	AISE SPERC 2.1.c.v1	AISE SPERC 2.1.c.v1 - AISE 3 - Formulation of Detergents/Maintenance Products: Granular Detergent -Regular (small scale)	1.0E-02	2.0E-03	0.0E+00
4	AISE SPERC 2.1.g.v1	AISE SPERC 2.1.g.v1 - AISE 7- Formulation of liquid Detergents/Maintenance Products: Low Viscosity (large scale)	0.0E+00	1.0E-04	0.0E+00
5	AISE SPERC 2.1.h.v1	AISE SPERC 2.1.h.v1 - AISE 8 - Formulation of liquid Detergents / Maintenance Products: Low Viscosity (medium scale)	0.0E+00	1.0E-03	0.0E+00
6	AISE SPERC 2.1.i.v1	AISE SPERC 2.1.i.v1 - AISE 9 - Formulation of liquid Detergents/Maintenance Products: Low Viscosity (small scale)	0.0E+00	2.0E-03	0.0E+00
7	AISE SPERC 2.1.j.v1	AISE SPERC 2.1.j.v1 - AISE 10 - Formulation of liquid Detergents/Maintenance Products: High Viscosity (large scale)	0.0E+00	1.0E-03	0.0E+00
8	AISE SPERC 2.1.k.v1	AISE SPERC 2.1.k.v1 - AISE 11 - Formulation of liquid Detergents/Maintenance Products: High Low Viscosity (medium scale)	0.0E+00	2.0E-03	0.0E+00
9	AISE SPERC 2.1.l.v1	AISE SPERC 2.1.l.v1 - AISE 12 - Formulation of liquid Detergents/Maintenance Products: High Viscosity (small scale)	0.0E+00	4.0E-03	0.0E+00
10	AISE SPERC 4.1.v1	AISE SPERC 4.1.v1 - AISE 13 - Industrial Use of Water Borne Processing Aids - no RMM	0.0E+00	1.0E+00	0.0E+00
11	AISE SPERC 5.1a.v1	AISE SPERC 5.1a.v1 - AISE 14 - Industrial Use of Me-salts in conversion coating - Nickel	0.0E+00	5.0E-02	0.0E+00
12	AISE SPERC 5.1b.v1	AISE SPERC 5.1b.v1 - AISE 15 - Industrial Use of Me-salts in conversion coating - Zinc, Chromium, Copper, Manganese	0.0E+00	1.0E-02	0.0E+00
13	AISE SPERC 8a.1.a.v1	AISE SPERC 8a.1.a.v1 - AISE 16 - Wide Dispersive Use in 'Down the Drain' cleaning and maintenance products (Consumers and Professionals)	0.0E+00	1.0E+00	0.0E+00
14	AISE SPERC 8a.1.b.v1	AISE SPERC 8a.1.a.v1 - AISE 17 - Wide Dispersive Use in Aerosol products for cleaning and maintenance products (Non-Propellants)	0.0E+00	1.0E+00	0.0E+00
15	AISE SPERC 8a.1.c.v1	AISE SPERC 8a.1.a.v1 - AISE 18 - Wide Dispersive Use in Aerosol products for cleaning and maintenance products (Propellants)	1.0E+00	0.0E+00	0.0E+00
16	CEPE SPERC 2.1a.v1	CEPE SPERC 2.1a.v1 - CEPE 1 - Formulation of Organic Solvent Borne Coatings and Inks - Large Scale (>100 tpa solvent use) - VOC	6.0E-03	0.0E+00	0.0E+00
17	CEPE SPERC 2.1b.v1	CEPE SPERC 2.1b.v1 - CEPE 2 - Formulation of Organic Solvent Borne Coatings and Inks - Small Scale (<100 tpa solvent use) - VOC	6.0E-03	0.0E+00	0.0E+00
18	CEPE SPERC 2.2a.v1	CEPE SPERC 2.2a.v1 - CEPE 3 - Formulation of Organic Solvent Borne Coatings and Inks - Solids	9.7E-05	5.0E-05	0.0E+00
19	CEPE SPERC 2.1b2.v1	CEPE SPERC 2.1b2.v1 - CEPE 4 - Formulation of Water Borne Coatings and Inks - Large Scale (>100 tpa solvent use) - VOC	4.0E-03	0.0E+00	0.0E+00
20	CEPE SPERC 2.1b3.v1	CEPE SPERC 2.1b3.v1 - CEPE 5 - Formulation of Water Borne Coatings and Inks - Small Scale (<100 tpa solvent use) - VOC	4.0E-03	0.0E+00	0.0E+00
21	CEPE SPERC 2.1b4.v1	CEPE SPERC 2.1b4.v1 - CEPE 6 - Formulation of Water Borne Coatings and Inks - Solids	9.7E-05	5.0E-03	0.0E+00
22	CEPE SPERC 2.1c.v1	CEPE SPERC 2.1c.v1 - CEPE 7 - Formulation of Powder Coatings and Inks - Solids	9.7E-05	5.0E-03	0.0E+00
23	CEPE SPERC 2.2a1.v1	CEPE SPERC 2.2a1.v1 - CEPE 8 - Formulation of Liquid Coatings and Inks (where specific use not known) - Large Scale (>100 tpa solvent use) - VOC	6.0E-03	0.0E+00	0.0E+00
24	CEPE SPERC 2.2a2.v1	CEPE SPERC 2.2a2.v1 - CEPE 9 - Formulation of Liquid Coatings and Inks (where specific use not known) - Small Scale (<100 tpa solvent use) - VOC	6.0E-03	0.0E+00	0.0E+00
25	CEPE SPERC 2.2a3.v1	CEPE SPERC 2.2a3.v1 - CEPE 10 - Formulation of Liquid Coatings and Inks (where specific use not known) - Solids	9.7E-05	5.0E-03	0.0E+00
26	CEPE SPERC 8c.2.v1	CEPE SPERC 8c.2.v1 - CEPE 11 - Wide Dispersive Application of Decorative Coatings - Consumer and Professionals - indoor use - Solvents and volatiles	9.9E-01	1.0E-02	0.0E+00
27	CEPE SPERC 8c.1.v1	CEPE SPERC 8c.1.v1 - CEPE 12 - Wide Dispersive Application of Decorative Coatings - Consumer and Professionals - indoor use - Solids	0.0E+00	1.0E-02	0.0E+00
28	CEPE SPERC 8f.2.v1	CEPE SPERC 8f.2.v1 - CEPE 13 - Wide Dispersive Application of Decorative Coatings - Consumer and Professionals - outdoor use - Solvents and Volatiles	9.9E-01	1.0E-02	5.0E-03
29	CEPE SPERC 8f.1.v1	CEPE SPERC 8f.1.v1 - CEPE 14 - Wide Dispersive Application of Decorative Coatings - Consumer and Professionals - outdoor use - Solids	0.0E+00	1.0E-02	5.0E-03
30	CEPE SPERC 4.na.v1	CEPE SPERC 4.na.v1 - CEPE 15 - Other spray coating - Volatiles / Abatement	8.0E-01	2.0E-02	0.0E+00
31	CEPE SPERC 4.nb.v1	CEPE SPERC 4.nb.v1 - CEPE 16a - Other spray coating, indoor use - point sources - Volatiles	9.8E-01	2.0E-02	0.0E+00
32	CEPE SPERC 8a.n.v1	CEPE SPERC 8a.n.v1 - CEPE 16b - Other spray coating, indoor use - wide dispersive - Volatiles	9.8E-01	2.0E-02	0.0E+00
33	CEPE SPERC 5.na.v1	CEPE SPERC 5.na.v1 - CEPE 17a - Other spray coating, indoor use - point sources - Solids	2.2E-02	0.0E+00	0.0E+00
34	CEPE SPERC 8c.nb.v1	CEPE SPERC 8c.nb.v1 - CEPE 17b - Other spray coating, indoor use - wide dispersive - Solids	2.2E-02	0.0E+00	0.0E+00
35	CEPE SPERC 5.na.v1	CEPE SPERC 5.na.v1 - CEPE 18 - Powder spraying	2.0E-02	0.0E+00	0.0E+00
36	CEPE SPERC 8a.1a.v1	CEPE SPERC 8a.1a.v1 - CEPE 20 - application - consumer - bush/roller - indoor use - volatiles	9.9E-01	1.0E-02	0.0E+00
37	CEPE SPERC 8c.1a.v1	CEPE SPERC 8c.1a.v1 - CEPE 21 - application - consumer - bush/roller - indoor use - solids	0.0E+00	1.0E-02	0.0E+00
38	CEPE SPERC 8d.1a.v1	CEPE SPERC 8d.1a.v1 - CEPE 22 - application - consumer - bush/roller - outdoor use - volatiles	9.9E-01	1.0E-02	5.0E-03
39	CEPE SPERC 8f.1a.v1	CEPE SPERC 8f.1a.v1 - CEPE 23 - application - consumer - bush/roller - outdoor use - solids	0.0E+00	1.0E-02	5.0E-03
40	CEPE SPERC 8a.2a.v1	CEPE SPERC 8a.2a.v1 - CEPE 30 - application - professional - bush/roller - indoor use - volatiles	9.9E-01	1.0E-02	0.0E+00
41	CEPE SPERC 8c.2a.v1	CEPE SPERC 8c.2a.v1 - CEPE 31 - application - professional - bush/roller - indoor use - solids	0.0E+00	1.0E-02	0.0E+00
42	CEPE SPERC 8d.2a.v1	CEPE SPERC 8d.2a.v1 - CEPE 32 - application - professional - bush/roller - outdoor use - volatiles	9.9E-01	1.0E-02	5.0E-03
43	CEPE SPERC 8f.2a.v1	CEPE SPERC 8f.2a.v1 - CEPE 33 - application - professional - bush/roller - outdoor use - solids	0.0E+00	1.0E-02	5.0E-03
44	CEPE SPERC 8a.3a.v1	CEPE SPERC 8a.3a.v1 - CEPE 34 - application - professional - spraying - indoor use - volatiles	9.8E-01	2.0E-02	0.0E+00
45	CEPE SPERC 8c.3a.v1	CEPE SPERC 8c.3a.v1 - CEPE 35 - application - professional - spraying - indoor use - solids	2.2E-02	0.0E+00	0.0E+00
46	CEPE SPERC 8d.3a.v1	CEPE SPERC 8d.3a.v1 - CEPE 36 - application - professional - spraying - outdoor use - volatiles	9.8E-01	2.0E-02	0.0E+00
47	CEPE SPERC 8f.3a.v1	CEPE SPERC 8f.3a.v1 - CEPE 37 - application - professional - spraying - outdoor use - solids	2.2E-02	0.0E+00	
48	CEPE SPERC 4.1a.v1	CEPE SPERC 4.1a.v1 - CEPE 50 - application - industrial - spraying - indoor use - incineration - volatiles	8.0E-03	2.0E-02	0.0E+00
49	CEPE SPERC 4.1b.v1	CEPE SPERC 4.1b.v1 - CEPE 51 - application - industrial - spraying - indoor use - volatiles	9.8E-01	2.0E-02	0.0E+00
50	CEPE SPERC 5.1a.v1	CEPE SPERC 5.1a.v1 - CEPE 52 - application - industrial - spraying - indoor use - solids	2.0E-02	0.0E+00	0.0E+00
51	CEPE SPERC 5.2a.v1	CEPE SPERC 5.2a.v1 - CEPE 53 - application - industrial - spraying - indoor use - powder	2.0E-02	0.0E+00	0.0E+00
52	ECCA SPERC 5.1a.v1	ECCA SPERC 5.1a.v1 - ECCA 1 - Industrial Coil Coating - Solids	0.0E+00	2.0E-03	0.0E+00
53	ECCA SPERC 5.1b.v1	ECCA SPERC 5.1b.v1 - ECCA 2 - Industrial Coil Coating - Volatiles	1.2E-01	0.0E+00	0.0E+00
54	EMPAC SPERC 5.1.v1	EMPAC SPERC 5.1.v1 - EMPAC 1 - Industrial Use of Paint, Coatings in metal packaging - Non-Solvents	1.7E-02	0.0E+00	0.0E+00
55	EMPAC SPERC 5.2.v1	EMPAC SPERC 5.2.v1 - EMPAC 2 - Industrial Use of Paint, Coatings in metal packaging - Solvents	1.0E+00	0.0E+00	0.0E+00
56	ACEA SPERC 5.1.v1	ACEA SPERC 5.1.v1 - ACEA 1 - Automotive vehicles - Solids	1.7E-02	0.0E+00	3.3E-01
57	ACEA SPERC 4.1.v1	ACEA SPERC 4.1.v1 - ACEA 2 - Automotive vehicles - Volatiles/Solvents	7.5E-01	1.0E-02	0.0E+00
58	AIRC SPERC 8c.1.v1	AIRC SPERC 8c.1.v1 - BFL_ZKF 1 - Vehicle Refinishing - Solids	2.5E-02	0.0E+00	4.8E-01
59	AIRC SPERC 8a.1.v1	AIRC SPERC 8a.1.v1 - BFL_ZKF 2 - Vehicle Refinishing - Volatiles/Solvents	9.7E-01	3.0E-02	0.0E+00
60	COLIPA SPERC 2.1.a.v1	COLIPA SPERC 2.1.a.v1 - COLIPA 1 - Formulation of low viscosity liquids (Shampoo, hair conditioner, shower gel, foam bath) (large scale)	0.0E+00	1.0E-03	0.0E+00
61	COLIPA SPERC 2.1.b.v1	COLIPA SPERC 2.1.b.v1 - COLIPA 2 - Formulation of low viscosity liquids (Shampoo, hair conditioner, shower gel, foam bath) (medium scale)	0.0E+00	2.0E-03	0.0E+00
62	COLIPA SPERC 2.1.c.v1	COLIPA SPERC 2.1.c.v1 - COLIPA 3 - Formulation of low viscosity liquids (Shampoo, hair conditioner, shower gel, foam bath) (Small Scale)	0.0E+00	4.0E-03	0.0E+00
63	COLIPA SPERC 2.1.d.v1	COLIPA SPERC 2.1.d.v1 - COLIPA 4 - Formulation of Fine Fragrances - Cleaning with Water (medium scale)	0.0E+00	1.5E-02	0.0E+00
64	COLIPA SPERC 2.1.e.v1	COLIPA SPERC 2.1.e.v1 - COLIPA 5 - Formulation of Fine Fragrances - Cleaning with Water (small scale)	0.0E+00	3.0E-02	0.0E+00
65	COLIPA SPERC 2.1.f.v1	COLIPA SPERC 2.1.f.v1 - COLIPA 6 - Formulation of Medium Viscosity Body Care Products (medium scale)	0.0E+00	1.0E-02	0.0E+00
66	COLIPA SPERC 2.1.g.v1	COLIPA SPERC 2.1.g.v1 - COLIPA 7 - Formulation of Medium Viscosity Body Care Products (Small scale)	0.0E+00	2.0E-02	0.0E+00
67	COLIPA SPERC 2.1.h.v1	COLIPA SPERC 2.1.h.v1 - COLIPA 8 - Formulation of Non-liquid Creams (skin care, body care, Mascara, Solar oil, Maku-up Foundation) (large scale)	0.0E+00	1.0E-02	0.0E+00
68	COLIPA SPERC 2.1.i.v1	COLIPA SPERC 2.1.i.v1 - COLIPA 9 - Formulation of Non-liquid Creams (skin care, body care, Mascara, Solar oil, Maku-up Foundation) (medium scale)	0.0E+00	2.0E-02	0.0E+00
69	COLIPA SPERC 2.1.j.v1	COLIPA SPERC 2.1.j.v1 - COLIPA 10 - Formulation of Non-liquid Creams (skin care, body care, Mascara, Solar oil, Maku-up Foundation) (small scale)	0.0E+00	4.0E-02	0.0E+00
70	COLIPA SPERC 2.2.a.v1	COLIPA SPERC 2.2.a.v1 - COLIPA 11 - Formulation of cosmetic products involving cleaning with Organic Solvents (Varnish / Removers, Decorative Cosmetics, Spray, Lacquer, Fine Fragrance, Solar oil, solid products - (large scale)	0.0E+00	0.0E+00	0.0E+00
71	COLIPA SPERC 2.2.b.v1	COLIPA SPERC 2.2.b.v1 - COLIPA 12 - Formulation of cosmetic products involving cleaning with Organic Solvents (Varnish / Removers, Decorative Cosmetics, Spray, Lacquer, Fine Fragrance, Solar oil, solid products - (medium scale)	0.0E+00	0.0E+00	0.0E+00
72	COLIPA SPERC 2.2.c.v1	COLIPA SPERC 2.2.c.v1 - COLIPA 13 - Formulation of cosmetic products involving cleaning with Organic Solvents (Varnish / Removers, Decorative Cosmetics, Spray, Lacquer, Fine Fragrance, Solar oil, solid products - (small scale)	0.0E+00	0.0E+00	0.0E+00
73	COLIPA SPERC 2.3.a.v1	COLIPA SPERC 2.3.a.v1 - COLIPA 14 - Formulation of body care soap (large scale)	0.0E+00	5.0E-04	0.0E+00
74	COLIPA SPERC 2.3.b.v1	COLIPA SPERC 2.3.b.v1 - COLIPA 15 - Formulation of body care soap (medium scale)	0.0E+00	1.0E-03	0.0E+00
75	COLIPA SPERC 2.3.c.v1	COLIPA SPERC 2.3.c.v1 - COLIPA 16 - Formulation of body care soap (small scale)	0.0E+00	2.0E-03	0.0E+00
76	COLIPA SPERC 8a.1.a.v1	COLIPA SPERC 8a.1.a.v1 - COLIPA 17 - Wide Dispersive Use in 'Down the Drain' products - hair and skin care products (Consumers and Professionals)	0.0E+00	1.0E+00	0.0E+00
77	COLIPA SPERC 8a.1.b.v1	COLIPA SPERC 8a.1.b.v1 - COLIPA 18 - Wide Dispersive Use of Aerosol products for hair and skin care (Propellants)	1.0E+00	0.0E+00	0.0E+00
78	COLIPA SPERC 8a.1.c.v1	COLIPA SPERC 8a.1.c.v1 - COLIPA 19 - Wide Dispersive Use of Aerosol products for hair and skin care (Non-Propellants)	0.0E+00	1.0E+00	0.0E+00

79	EFCC SPERC 2.1a.v1	EFCC SPERC 2.1a.v1 - EFCC 1 - Volatile substances (main component) for the Formulation of Construction Chemicals. Only applicable for volatile substances. Main component as e.g. solvents usually been used in concentrations above 5%.	1.0E-02	5.0E-03	0.0E+00
80	EFCC SPERC 2.1b.v1	EFCC SPERC 2.1b.v1 - EFCC 2 - Volatile substances (additives) for the Formulation of Construction Chemicals. Only applicable for volatile substances. Additives usually been used in concentrations below 5%.	1.0E-02	5.0E-03	0.0E+00
81	EFCC SPERC 2.1c.v1	EFCC SPERC 2.1c.v1 - EFCC 3 - Non-Volatile substances for the Formulation of Construction Chemicals. Only applicable for non-volatile substances.	0.0E+00	5.0E-03	0.0E+00
82	EFCC SPERC 4.1a.v1	EFCC SPERC 4.1a.v1 - EFCC 4 - Industrial use of volatile substances (main components) in Construction Chemicals. Only applicable for volatile substances. Main component as e.g. solvents usually been used in concentrations above 5%.	9.9E-01	0.0E+00	0.0E+00
83	EFCC SPERC 4.1b.v1	EFCC SPERC 4.1b.v1 - EFCC 5 - Industrial use of volatile substances (additives) in Construction Chemicals. Only applicable for volatile substances. Additives usually been used in concentrations below 5%.	9.9E-01	0.0E+00	0.0E+00
84	EFCC SPERC 5.1a.v1	EFCC SPERC 5.1a.v1 - EFCC 6 - Industrial use of non-volatile substances in Construction Chemicals. Only applicable for non-volatile substances.	1.7E-02	0.0E+00	0.0E+00
85	EFCC SPERC 8A.1a.v1	EFCC SPERC 8A.1a.v1 - EFCC 7 - Wide dispersive use of volatile substances in Construction Chemicals, indoor. Only applicable for volatile substances.	9.8E-01	1.0E-02	0.0E+00
86	EFCC SPERC 8C.1a.v1	EFCC SPERC 8C.1a.v1 - EFCC 8 - Wide dispersive use of non-volatile substances in Construction Chemicals, indoor. Only applicable for non-volatile substances.	0.0E+00	1.0E-02	0.0E+00
87	EFCC SPERC 8D.1a.v1	EFCC SPERC 8D.1a.v1 - EFCC 9 - Wide dispersive use of volatile substances in Construction Chemicals, outdoor. Only applicable for volatile substances.	9.8E-01	1.0E-02	0.0E+00
88	EFCC SPERC 8F.1a.v1	EFCC SPERC 8F.1a.v1 - EFCC 10 - Wide dispersive use of non-volatile substances in Construction Chemicals, outdoor. Only applicable for non-volatile substances.	0.0E+00	1.0E-02	3.7E-02
89	ESVOC SpERC 1.1.v1	ESVOC SpERC 1.1.v1 - ESVO 1 - Manufacture of the substance and subsequent recycling/ recovery, including material transfers, storage, and maintenance	1.0E-06	3.0E-03	1.0E-04
90	ESVOC SpERC 6.1a.v1	ESVOC SpERC 6.1a.v1 - ESVO 2 - Use as a isolated intermediate not under strictly controlled conditions	0.0E+00	3.0E-03	1.0E-03
91	ESVOC SpERC 1.1b.v1	ESVOC SpERC 1.1b.v1 - ESVO 3 - Loading (including marine vessel/barge, rail car and IBC loading) and repacking (including drums and small packs), including losses during off-site storage (e.g. terminals)	1.0E-04	1.0E-05	1.0E-05
92	ESVOC SpERC 2.2.v1	ESVOC SpERC 2.2.v1 - ESVO 4 - Formulation & packing of mixtures in batch or continuous operations, including storage, materials transfers, large and small scale	2.5E-03	2.0E-03	1.0E-04
93	ESVOC SpERC 4.3a.v1	ESVOC SpERC 4.3a.v1 - ESVO 5 - Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials transfer from bulk and semi-bulk and spraying, brushing and other manual application tasks); and equipment cleaning	9.8E-01	7.0E-03	0.0E+00
94	ESVOC SpERC 8.3b.v1	ESVOC SpERC 8.3b.v1 - ESVO 6 - Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials transfer and spraying, brushing and other manual application tasks); and equipment cleaning	9.8E-01	1.0E-02	1.0E-02
95	ESVOC SpERC 8.3c.v1	ESVOC SpERC 8.3c.v1 - ESVO 7 - Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including product transfer and spraying, brushing, aerosol and other manual application tasks); and equipment cleaning	9.9E-01	1.0E-02	5.0E-03
96	ESVOC SpERC 4.4a.v1	ESVOC SpERC 4.4a.v1 - ESVO 8 - Covers the use as a component of cleaning products for industrial use including transfer from storage; pouring/unloading from drums or containers; exposures during cleaning activities (automated and by hand); and related maintenance	3.0E-01	3.0E-05	0.0E+00
97	ESVOC SpERC 8.4b.v1	ESVOC SpERC 8.4b.v1 - ESVO 9 - Covers the use as a component of cleaning products for professional use including pouring/unloading from drums or containers; and exposures during cleaning activities (automated and by hand)	2.0E-02	1.0E-06	0.0E+00
98	ESVOC SpERC 8.4c.v1	ESVOC SpERC 8.4c.v1 - ESVO 10 - Covers general exposures to consumers arising from the use household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products	9.5E-01	2.5E-02	2.5E-02
99	ESVOC SpERC 4.6a.v1	ESVOC SpERC 4.6a.v1 - ESVO 13 - Covers the industrial use of formulated lubricants in closed and open systems including transfer operations, operation of engines and similar articles, maintenance and disposal of waste oil	3.0E-05	3.0E-04	1.0E-03
100	ESVOC SpERC 9.6b.v1	ESVOC SpERC 9.6b.v1 - ESVO 14 - Covers the professional use of formulated lubricants in closed systems including transfer operations, operation of engines and similar articles, recycling and disposal of waste oil	1.0E-02	1.0E-02	1.0E-02
101	ESVOC SpERC 8.6c.v1	ESVOC SpERC 8.6c.v1 - ESVO 15 - Covers the professional use of formulated lubricants in open systems including transfer operations, operation of engines and similar articles, recycling and disposal of waste oil	5.0E-03	5.0E-02	5.0E-02
102	ESVOC SpERC 9.6d.v1	ESVOC SpERC 9.6d.v1 - ESVO 16 - Covers the consumer use of formulated lubricants in closed systems including transfer operations, application, operation of engines and similar articles, recycling and disposal of waste oil.	1.0E-02	1.0E-02	1.0E-02
103	ESVOC SpERC 8.6e.v1	ESVOC SpERC 8.6e.v1 - ESVO 17 - Covers the consumer use of formulated lubricants in open systems including transfer operations, application, operation of engines and similar articles, recycling and disposal of waste oil.	5.0E-03	5.0E-02	5.0E-02
104	ESVOC SpERC 4.7a.v1	ESVOC SpERC 4.7a.v1 - ESVO 18 - Covers the industrial use in formulated MWFs/rolling oils including transfer operations, open rolling and annealing activities, open and contained cutting/machining activities, draining and working on contaminated/ reject articles, recycling and disposal of waste oils.	6.0E-03	3.0E-04	0.0E+00
105	ESVOC SpERC 8.7c.v1	ESVOC SpERC 8.7c.v1 - ESVO 20 - Covers the professional use in formulated MWFs/rolling oils including transfer operations, open rolling and annealing activities, open and contained cutting/machining activities, draining and working on contaminated/ reject articles, recycling and disposal of waste oils.	5.0E-03	5.0E-02	5.0E-02
106	ESVOC SpERC 4.9.v1	ESVOC SpERC 4.9.v1 - ESVO 23 - Use as a blowing agent, including material transfers, curing, storage and maintenance	1.0E+00	3.0E-04	0.0E+00
107	ESVOC SpERC 4.10a.v1	ESVOC SpERC 4.10a.v1 - ESVO 24 - Use as binders and release agents in industrial settings, including material transfers, mixing, application and disposal	2.0E-01	3.0E-05	0.0E+00
108	ESVOC SpERC 8.10b.v1	ESVOC SpERC 8.10b.v1 - ESVO 25 - Use as binders and release agents in professional settings, including material transfers, mixing, application and disposal	9.5E-01	2.5E-02	2.5E-02
109	ESVOC SpERC 8.11a.v1	ESVOC SpERC 8.11a.v1 - ESVO 26 - Use as an agrochemical excipient for application by manual or machine spraying, smokes and fogging.	9.0E-01	1.0E-02	9.0E-02
110	ESVOC SpERC 8.11b.v1	ESVOC SpERC 8.11b.v1 - ESVO 27 - Use as an agrochemical excipient for application by manual spraying and aerosols	9.0E-01	1.0E-02	9.0E-02
111	ESVOC SpERC 7.12a.v1	ESVOC SpERC 7.12a.v1 - ESVO 28 - Use as a fuel including incineration of wastes and use as a solvent in fuel additives, covers refueling and evaporative losses	2.5E-04	1.0E-05	0.0E+00
112	ESVOC SpERC 9.12b.v1	ESVOC SpERC 9.12b.v1 - ESVO 29 - Use as a fuel including use as a solvent in fuel additives; covers refueling and evaporative losses	1.0E-04	1.0E-05	1.0E-05
113	ESVOC SpERC 9.12c.v1	ESVOC SpERC 9.12c.v1 - ESVO 30 - Use as a fuel including use as a solvent in fuel additives, covers refueling and evaporative losses	1.0E-04	1.0E-05	1.0E-05
114	ESVOC SpERC 7.13a.v1	ESVOC SpERC 7.13a.v1 - ESVO 31 - Use as functional fluids e.g. cable oils, transfer oils, insulators, hydraulic fluids in industrial equipment including maintenance	1.0E-04	3.0E-04	1.0E-03
115	ESVOC SpERC 9.13b.v1	ESVOC SpERC 9.13b.v1 - ESVO 32 - Use as functional fluids e.g. cable oils, transfer oils, insulators, hydraulic fluids in professional equipment including	5.0E-02	2.5E-02	2.5E-02
116	ESVOC SpERC 9.13c.v1	ESVOC SpERC 9.13c.v1 - ESVO 33 - Use of sealed items containing functional fluids e.g. transfer oils, hydraulic fluids	5.0E-02	2.5E-02	2.5E-02
117	ESVOC SpERC 8.14a.v1	ESVOC SpERC 8.14a.v1 - ESVO 34 - De-icing of vehicles, aircraft and other equipment by spraying	9.5E-01	1.0E-02	4.0E-02
118	ESVOC SpERC 8.14b.v1	ESVOC SpERC 8.14b.v1 - ESVO 35 - De-icing of vehicles and similar equipment by spraying	9.0E-01	5.0E-02	5.0E-02
119	ESVOC SpERC 8.15.v1	ESVOC SpERC 8.15.v1 - ESVO 36 - Application of surface coatings and binders in road and construction activities, including material transfers and product disposal	9.5E-01	1.0E-02	4.0E-02
120	ESVOC SpERC 8.16.v1	ESVOC SpERC 8.16.v1 - ESVO 37 - Other Consumer Uses: Consumer	9.5E-01	2.5E-02	2.5E-02
121	ESVOC SpERC 4.24.v1	ESVOC SpERC 4.24.v1 - ESVO 38 - Use of the substance within laboratory setting, including pilot plants	2.5E-02	2.0E-02	1.0E-04
122	ESVOC SpERC 8.17.v1	ESVOC SpERC 8.17.v1 - ESVO 39 - Use of small quantities within laboratory settings	5.0E-01	5.0E-01	0.0E+00
123	ESVOC SpERC 2.18.v1	ESVOC SpERC 2.18.v1 - ESVO 40 - Covers exposures arising from the manufacture of slurry explosives (including materials transfer, mixing and charging) and	1.0E-04	3.0E-04	1.0E-04
124	ESVOC SpERC 8.24.v1	ESVOC SpERC 8.24.v1 - ESVO 41 - Explosives manufacturer: Professional	1.0E-03	2.0E-02	1.0E-02
125	ESVOC SpERC 4.19.v1	ESVOC SpERC 4.19.v1 - ESVO 42 - Manufacture of rubber articles, including processing of raw rubber, handling and mixing of rubber additives, vulcanising,	1.0E-02	3.0E-03	1.0E-04
126	ESVOC SpERC 4.20.v1	ESVOC SpERC 4.20.v1 - ESVO 43 - Manufacture of polymers from monomers in continuous and batch processes, include sparging, discharging, and reactor maintenance and immediate polymer product formation (i.e. compounding, pelletisation, product off-gassing).	2.0E-03	3.0E-03	1.0E-04
127	ESVOC SpERC 4.21a.v1	ESVOC SpERC 4.21a.v1 - ESVO 44 - Processing of formulated polymers including material transfers, additives handling, moulding, curing and forming activities, material re-works and associated maintenance.	2.0E-02	0.0E+00	1.0E-05
128	ESVOC SpERC 8.21b.v1	ESVOC SpERC 8.21b.v1 - ESVO 45 - Processing of formulated polymers including material transfers, moulding and forming activities, material re-works and	9.8E-01	1.0E-02	1.0E-02
129	ESVOC SpERC 3.22a.v1	ESVOC SpERC 3.22a.v1 - ESVO 46 - Covers the use of the substance for the treatment of water at industrial facilities in open and closed systems	5.0E-02	9.5E-01	0.0E+00
130	ESVOC SpERC 8.22b.v1	ESVOC SpERC 8.22b.v1 - ESVO 47 - Covers the use of the substance for the treatment of water in open and closed systems	1.0E-02	9.9E-01	0.0E+00
131	ESVOC SpERC 8.22c.v1	ESVOC SpERC 8.22c.v1 - ESVO 48 - Covers the use of the substance for the treatment of water in open and closed systems	1.0E-02	9.9E-01	0.0E+00
132	ESVOC SpERC 4.23.v1	ESVOC SpERC 4.23.v1 - ESVO 49 - Covers the use of the substance in extraction processes at mining operations, including material transfers, winning and separation activities, and substance recovery and disposal.	5.0E-02	5.0E-01	5.0E-02
133	ESVOC SpERC 9.24a.v1	ESVOC SpERC 9.24a.v1 - ESVO 50 - Release of unburned residual fuel in exhaust from combustion of fuel in stationary engines, e.g. industrial fuel combustion	1.0E-03	0.0E+00	0.0E+00
134	ESVOC SpERC 9.24b.v1	ESVOC SpERC 9.24b.v1 - ESVO 51 - Release of unburned residual fuel in exhaust from combustion of fuel in stationary engines, e.g. heating oil	5.0E-03	0.0E+00	0.0E+00
135	ESVOC SpERC 9.24c.v1	ESVOC SpERC 9.24c.v1 - ESVO 52 - Release of unburned residual fuel in exhaust from combustion of fuel in stationary engines, e.g. heating oil	5.0E-03	0.0E+00	0.0E+00
136	FEICA SPERC 2.1a.v1	FEICA SPERC 2.1a.v1 - FEICA 1 - Formulation of Solventless/ Solvent Borne Adhesives - Solids	1.0E-02	5.0E-05	0.0E+00
137	FEICA SPERC 2.1b.v1	FEICA SPERC 2.1b.v1 - FEICA 2 - Formulation of Solvent Borne adhesives - Volatiles (Large Scale)	1.2E-03	0.0E+00	0.0E+00
138	FEICA SPERC 2.1c.v1	FEICA SPERC 2.1c.v1 - FEICA 3 - Formulation of Solvent Borne adhesives - Volatiles (Small Scale)	6.0E-03	0.0E+00	0.0E+00
139	FEICA SPERC 2.2a.v1	FEICA SPERC 2.2a.v1 - FEICA 4 - Formulation of Water Borne adhesives - Volatiles	4.0E-03	5.0E-02	0.0E+00
140	FEICA SPERC 2.2b.v1	FEICA SPERC 2.2b.v1 - FEICA 5 - Formulation of Water Borne adhesives - Solids	9.7E-05	5.0E-02	0.0E+00
141	FEICA SPERC 5.1a.v1	FEICA SPERC 5.1a.v1 - FEICA 6 - Industrial Use of Substances other than Solvents in Paper, Board and related Products / Woodworking and joinery / Footwear and	9.0E-03	0.0E+00	0.0E+00
142	FEICA SPERC 5.1b.v1	FEICA SPERC 5.1b.v1 - FEICA 7 - Industrial Use of Substances other than Solvents in Transportation (Automotive/aircraft/rail vehicles) / Industrial Building	1.7E-02	0.0E+00	0.0E+00
143	FEICA SPERC 5.2a.v1	FEICA SPERC 5.2a.v1 - FEICA 8 - Industrial Use of Solvents in Paper, Board and related Products / Woodworking and joinery / Footwear and Leather, Textile, Others	9.9E-01	0.0E+00	0.0E+00
144	FEICA SPERC 5.2b.v1	FEICA SPERC 5.2b.v1 - FEICA 9 - Industrial Use of Solvents in Transportation (Automotive/aircraft/rail vehicles) / Industrial Building Construction Adhesives	9.9E-01	0.0E+00	0.0E+00
145	FEICA SPERC 8c.1a.v1	FEICA SPERC 8c.1a.v1 - FEICA 10 - Wide dispersive Use of Substances other than Solvents in Building Construction Adhesives for indoor application	0.0E+00	1.0E-02	0.0E+00
146	FEICA SPERC 8c.1b.v1	FEICA SPERC 8c.1b.v1 - FEICA 11 - Wide dispersive Use of Substances other than Solvents in Professional and DIY Adhesives	0.0E+00	9.0E-03	0.0E+00
147	FEICA SPERC 8a.2a.v1	FEICA SPERC 8a.2a.v1 - FEICA 12 - Wide dispersive Use of Solvents in Building Construction Adhesives for indoor application	9.8E-01	1.0E-02	0.0E+00
148	FEICA SPERC 8a.2b.v1	FEICA SPERC 8a.2b.v1 - FEICA 13 - Wide dispersive Use of Solvents in Professional and DIY Adhesives	9.9E-01	0.0E+00	0.0E+00
149	FEICA SPERC 8f.1.v1	FEICA SPERC 8f.1.v1 - FEICA 14 - Wide dispersive Use of Substances other than Solvents in Building Construction Adhesives for outdoor application	0.0E+00	1.0E-02	0.0E+00

150	FEICA SPERC 8d.2.v1	FEICA SPERC 8d.2.v1 - FEICA 15 - Wide dispersive Use of Solvents in Building Construction Adhesives for outdoor application	9.8E-01	1.0E-02	0.0E+00
151	ECPA SPERC 8d.1.v1	ECPA SPERC 8d.1.v1 - ECPA 1 - Direct application of granules or treated seeds to soil	0.0E+00	0.0E+00	1.0E+00
152	ECPA SPERC 8d.2.v2	ECPA SPERC 8d.2.v2 - ECPA 2 - Spray application of plant protection products (releases dependent on co-formulant vapour pressure)	1.0E-02	0.0E+00	9.9E-01
153	ETRMA SPERC 3/6d.1a v.2	ETRMA SPERC 3/6d.1a v.2 - ETRMA 3/6d.1a - Process with efficient raw material use - GRG use of vulcanization agents, anti-ageing agents / antidegradants	1.0E-03	2.0E-04	0.0E+00
154	ETRMA SPERC 3/6d.1b v.2	ETRMA SPERC 3/6d.1b v.2 - ETRMA 3/6d.1b - Process with efficient raw material use - GRG use of reinforcing agents, hardeners	1.0E-03	2.0E-04	0.0E+00
155	ETRMA SPERC 3/6d.1c v.2	ETRMA SPERC 3/6d.1c v.2 - ETRMA 3/6d.1c - Process with efficient raw material use - GRG use of bonding agents	1.0E-03	2.0E-04	0.0E+00
156	ETRMA SPERC 3/6d.1d v.2	ETRMA SPERC 3/6d.1d v.2 - ETRMA 3/6d.1d - Process with efficient raw material use - GRG use of mastication agents/peptiser	1.0E-03	2.0E-04	0.0E+00
157	ETRMA SPERC 3/6d.2a v.2	ETRMA SPERC 3/6d.2a v.2 - ETRMA 3/6d.2a - Process with efficient raw material use and mechanical pre-treatment - GRG use of vulcanization agents, anti-ageing	1.0E-03	8.0E-05	0.0E+00
158	ETRMA SPERC 3/6d.2b v.2	ETRMA SPERC 3/6d.2b v.2 - ETRMA 3/6d.2b - Process with efficient raw material use and mechanical pre-treatment - GRG use of reinforcing agents, hardeners	1.0E-03	8.0E-05	0.0E+00
159	ETRMA SPERC 3/6d.2c v.2	ETRMA SPERC 3/6d.2c v.2 - ETRMA 3/6d.2c - Process with efficient raw material use and mechanical pre-treatment - GRG use of bonding agents	1.0E-03	8.0E-05	0.0E+00
160	ETRMA SPERC 3/6d.2d v.2	ETRMA SPERC 3/6d.2d v.2 - ETRMA 3/6d.2d - Process with efficient raw material use and mechanical pre-treatment - GRG use of mastication agents/peptiser	1.0E-03	8.0E-05	0.0E+00
161	ETRMA SPERC 3/6d.3a v.1	ETRMA SPERC 3/6d.3a v.1 - ETRMA 3/6d.3a - Process with optimization for efficient raw materials use - Tyre use of reinforcing agents, hardeners, mastication agents/peptiser, anti-ageing agents/antidegradants and GRG use of tackifiers, filler activators and bonding agents.	1.0E-03	1.0E-05	0.0E+00
162	ETRMA SPERC 3/6d.3b v.1	ETRMA SPERC 3/6d.3b v.1 - ETRMA 3/6d.3b - Process with optimization for efficient raw materials use - Tyre use of vulcanization agents, lubricants, tackifiers, filler activators, bonding agents and GRG use of fillers and pigments.	1.0E-03	1.0E-05	0.0E+00
163	ETRMA SPERC 3/6d.3c v.1	ETRMA SPERC 3/6d.3c v.1 - ETRMA 3/6d.3c - Process with optimization for efficient raw materials use - Tyre use of fillers and pigments.	1.0E-03	1.0E-05	0.0E+00
164	TEGEWA SPERC 5.1a.v1	TEGEWA SPERC 5.1a.v1 - TEGEWA 1 - Dyeing of Textiles - High efficiency	0.0E+00	5.0E-02	0.0E+00
165	TEGEWA SPERC 5.1b.v1	TEGEWA SPERC 5.1b.v1 - TEGEWA 2 - Dyeing of Textiles - Normal efficiency	0.0E+00	3.0E-01	0.0E+00
166	TEGEWA SPERC 5.1c.v1	TEGEWA SPERC 5.1c.v1 - TEGEWA 3 - Textile Finishing and Coating - Residues not retained	1.0E-03	2.0E-01	0.0E+00
167	TEGEWA SPERC 5.1d.v1	TEGEWA SPERC 5.1d.v1 - TEGEWA 4 - Textile Finishing and Coating - Residues retained	0.0E+00	5.0E-02	0.0E+00
168	TEGEWA SPERC 6b.1.v1	TEGEWA SPERC 6b.1.v1 - TEGEWA 5 - Use of reactive processing aid in textile processing	0.0E+00	2.0E-02	0.0E+00
169	TEGEWA SPERC 4.1.v1	TEGEWA SPERC 4.1.v1 - TEGEWA 6 - Industrial Use of Water Borne Processing Aids - no RMM	0.0E+00	1.0E+00	0.0E+00