

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : Custom VOA Standard  
Product code : AL0-130022  
Product group : Trade product

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Main use category : Laboratory Use  
Industrial/Professional use spec : Industrial  
For professional use only

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Phenova  
6390 Joyce Dr. Suite 100  
80403 Golden, CO - United States  
T 1-866-942-2978 - F 1-866-283-0269  
[info@phenova.com](mailto:info@phenova.com) - [www.phenova.com](http://www.phenova.com)

#### 1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924  
ChemTel Assistance (International) +1 813-248-0585

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 1	H224
Acute Tox. 3 (Oral)	H301
Acute Tox. 3 (Dermal)	H311
Muta. 1B	H340
Carc. 1A	H350
STOT SE 1	H370
STOT RE 2	H373
Aquatic Chronic 3	H412
Ozone 1	H420

##### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc.Cat.1; R45  
Muta.Cat.2; R46  
F+; R12  
T; R23/24/25  
T; R39/23/24/25  
Xn; R48/20  
N; R51/53  
N; R59  
R19

Full text of R-phrases: see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

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### 2.2. Label elements

#### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS06

GHS08

Signal word (CLP) : Danger

Hazardous ingredients : hexachlorobuta-1,3-diene; dibromomethane; cis-1,3-Dichloropropene; carbon tetrachloride; carbon disulfide; iodomethane; 1,4-dichloro-2-butene, trans-; methanol; benzene; 1,2-dibromo-3-chloropropane; 1,1,2,2-tetrachloroethane; 1,2-Dibromoethane; 1,2,3-trichloropropane; 1,3-dichloropropene, trans-; 1,1-dichloropropene; tetrahydrofuran; acrylonitrile, inhibited

Hazard statements (CLP) : H224 - Extremely flammable liquid and vapor  
H301+H311 - Toxic if swallowed or in contact with skin  
H340 - May cause genetic defects  
H350 - May cause cancer  
H370 - Causes damage to organs  
H373 - May cause damage to organs through prolonged or repeated exposure  
H412 - Harmful to aquatic life with long lasting effects  
H420 - Harms public health and the environment by destroying ozone in the upper atmosphere

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P233 - Keep container tightly closed  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P302+P350 - IF ON SKIN: Gently wash with plenty of soap and water  
P270 - Do not eat, drink or smoke when using this product  
P273 - Avoid release to the environment  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P308+P313 - IF exposed or concerned: Get medical advice/attention  
P403+P235 - Store in a well-ventilated place. Keep cool

EUH phrases : EUH208 - Contains 1,3-dichloropropene, (Z)-(10061-01-5), 1,3-dichloropropene, trans-(10061-02-6), acrylonitrile, inhibited(107-13-1). May produce an allergic reaction  
EUH019 - May form explosive peroxides

No labeling applicable

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
methanol (Component)	(CAS No) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X	87.5996	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
Methylene Chloride (Component)	(CAS No) 75-09-2 (EC no) 200-838-9 (EC index no) 602-004-00-3	0.2	Carc. 2, H351
Bromobenzene (Component)	(CAS No) 108-86-1 (EC no) 203-623-8 (EC index no) 602-060-00-9	0.2	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Aquatic Chronic 2, H411
hexachloroethane (Component)	(CAS No) 67-72-1 (EC no) 200-666-4	0.2	Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
hexachlorobuta-1,3-diene (Component)	(CAS No) 87-68-3 (EC no) 201-765-5	0.2	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
ethylbenzene (Component) substance with a Community workplace exposure limit	(CAS No) 100-41-4 (EC no) 202-849-4 (EC index no) 601-023-00-4	0.2	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
diethyl ether (Component) substance with a Community workplace exposure limit	(CAS No) 60-29-7 (EC no) 200-467-2 (EC index no) 603-022-00-4	0.2	Flam. Liq. 1, H224 Acute Tox. 4 (Oral), H302 STOT SE 3, H336
dibromomethane (Component)	(CAS No) 74-95-3 (EC no) 200-824-2 (EC index no) 602-003-00-8	0.2	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Inhalation), H332 Aquatic Chronic 3, H412
m-xylene (Component) substance with a Community workplace exposure limit	(CAS No) 108-38-3 (EC no) 203-576-3 (EC index no) 601-022-00-9	0.2	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315
naphthalene (Component)	(CAS No) 91-20-3 (EC no) 202-049-5 (EC index no) 601-052-00-2	0.2	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
bromoform (Component)	(CAS No) 75-25-2 (EC no) 200-854-6 (EC index no) 602-007-00-X	0.2	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411
chlorobenzene (Component)	(CAS No) 108-90-7 (EC no) 203-628-5 (EC index no) 602-033-00-1	0.2	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
chloroform (Component)	(CAS No) 67-66-3 (EC no) 200-663-8 (EC index no) 602-006-00-4	0.2	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 Repr. 2, H361d STOT RE 1, H372
cis-1,3-Dichloropropene (Component)	(CAS No) 10061-01-5 (EC no) 233-195-8 (EC index no) 602-030-00-5	0.2	Flam. Liq. 3, H226 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
bromodichloromethane (Component)	(CAS No) 75-27-4 (EC no) 200-856-7	0.2	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335
tetrachloroethylene (Component)	(CAS No) 127-18-4 (EC no) 204-825-9 (EC index no) 602-028-00-4	0.2	Carc. 2, H351 Aquatic Chronic 2, H411
trichloroethylene (Component) substance listed as REACH Candidate substance listed in REACH Annex XIV	(CAS No) 79-01-6 (EC no) 201-167-4 (EC index no) 602-027-00-9	0.2	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H336 Aquatic Chronic 3, H412
carbon tetrachloride (Component)	(CAS No) 56-23-5 (EC no) 200-262-8 (EC index no) 602-008-00-5	0.2	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 3, H412 Ozone 1, H420
carbon disulfide (Component)	(CAS No) 75-15-0 (EC no) 200-843-6 (EC index no) 006-003-00-3	0.2	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361fd STOT RE 1, H372
iodomethane (Component)	(CAS No) 74-88-4 (EC no) 200-819-5 (EC index no) 602-005-00-9	0.2	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Carc. 2, H351 STOT SE 3, H335 Aquatic Acute 1, H400

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1,4-dichloro-2-butene, trans- (Component)	(CAS No) 110-57-6 (EC no) 203-779-7 (EC index no) 602-073-00-X	0.2	Flam. Liq. 3, H226 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
cyclohexane (Component)	(CAS No) 110-82-7 (EC no) 203-806-2 (EC index no) 601-017-00-1	0.2	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
benzene (Component)	(CAS No) 71-43-2 (EC no) 200-753-7 (EC index no) 601-020-00-8	0.2	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304
o-xylene (Component) substance with a Community workplace exposure limit	(CAS No) 95-47-6 (EC no) 202-422-2 (EC index no) 601-022-00-9	0.2	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315
p-xylene (Component) substance with a Community workplace exposure limit	(CAS No) 106-42-3 (EC no) 203-396-5 (EC index no) 601-022-00-9	0.2	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315
toluene (Component)	(CAS No) 108-88-3 (EC no) 203-625-9 (EC index no) 601-021-00-3	0.2	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
1,2,4-trichlorobenzene (Component)	(CAS No) 120-82-1 (EC no) 204-428-0 (EC index no) 602-087-00-6	0.2	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-chlorotoluene (Component)	(CAS No) 95-49-8 (EC no) 202-424-3 (EC index no) 602-040-00-X	0.2	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Aquatic Chronic 2, H411
1,2-dichlorobenzene (Component)	(CAS No) 95-50-1 (EC no) 202-425-9 (EC index no) 602-034-00-7	0.2	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
sec-butylbenzene (Component)	(CAS No) 135-98-8 (EC no) 205-227-0	0.2	Flam. Liq. 3, H226 Aquatic Chronic 2, H411
1,2,4-trimethylbenzene (Component)	(CAS No) 95-63-6 (EC no) 202-436-9 (EC index no) 601-043-00-3	0.2	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
butylbenzene (Component)	(CAS No) 104-51-8 (EC no) 203-209-7	0.2	Flam. Liq. 3, H226 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4-Isopropyltoluene (Component)	(CAS No) 99-87-6 (EC no) 202-796-7	0.2	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
1,2-dibromo-3-chloropropane (Component)	(CAS No) 96-12-8 (EC no) 202-479-3 (EC index no) 602-021-00-6	0.2	Acute Tox. 3 (Oral), H301 Muta. 1B, H340 Carc. 1B, H350 Repr. 1A, H360F STOT RE 2, H373 Aquatic Chronic 3, H412
1,2,3-trichlorobenzene (Component)	(CAS No) 87-61-6 (EC no) 201-757-1	0.2	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
1,1,2,2-tetrachloroethane (Component)	(CAS No) 79-34-5 (EC no) 201-197-8 (EC index no) 602-015-00-3	0.2	Acute Tox. 3 (Oral), H301 Acute Tox. 1 (Dermal), H310 Acute Tox. 2 (Inhalation), H330 Aquatic Chronic 2, H411

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
n-propylbenzene (Component)	(CAS No) 103-65-1 (EC no) 203-132-9 (EC index no) 601-024-00-X	0.2	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
1,2-Dibromoethane (Component)	(CAS No) 106-93-4 (EC no) 203-444-5 (EC index no) 602-010-00-6	0.2	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 1B, H350 STOT SE 3, H335 Aquatic Chronic 2, H411
1,1,1,2-tetrachloroethane (Component)	(CAS No) 630-20-6 (EC no) 211-135-1	0.2	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318 Carc. 2, H351
1,2,3-trichloropropane (Component) substance listed as REACH Candidate	(CAS No) 96-18-4 (EC no) 202-486-1 (EC index no) 602-062-00-X	0.2	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Carc. 1B, H350 Repr. 1B, H360F
styrene (Component)	(CAS No) 100-42-5 (EC no) 202-851-5 (EC index no) 601-026-00-0	0.2	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361d STOT RE 1, H372
Isopropylbenzene (Component)	(CAS No) 98-82-8 (EC no) 202-704-5 (EC index no) 601-024-00-X	0.2	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
1,3-dichloropropene, trans- (Component)	(CAS No) 10061-02-6	0.2	Flam. Liq. 3, H226 Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335
bromochloromethane (Component)	(CAS No) 74-97-5 (EC no) 200-826-3	0.2	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Ozone
1,1,1-trichloroethane (Component)	(CAS No) 71-55-6 (EC no) 200-756-3 (EC index no) 602-013-00-2	0.2	Acute Tox. 4 (Inhalation), H332 Ozone 1, H420
1,1-dichloropropene (Component)	(CAS No) 563-58-6 (EC no) 209-253-3 (EC index no) 602-031-00-0	0.2	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Aquatic Chronic 3, H412
1,1,2-trichloroethane (Component)	(CAS No) 79-00-5 (EC no) 201-166-9 (EC index no) 602-014-00-8	0.2	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Carc. 2, H351
1,1-dichloroethene (Component)	(CAS No) 75-35-4 (EC no) 200-864-0 (EC index no) 602-025-00-8	0.2	Flam. Liq. 1, H224 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Carc. 2, H351
1,1-dichloroethane (Component) substance with a Community workplace exposure limit	(CAS No) 75-34-3 (EC no) 200-863-5 (EC index no) 602-011-00-1	0.2	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 3, H412
tetrahydrofuran (Component)	(CAS No) 109-99-9 (EC no) 203-726-8 (EC index no) 603-025-00-0	0.2	Flam. Liq. 2, H225 Acute Tox. 1 (Oral), H300 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335
2-methylnaphthalene (Component)	(CAS No) 91-57-6 (EC no) 202-078-3	0.2	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411
1,3-dichlorobenzene (Component)	(CAS No) 541-73-1 (EC no) 208-792-1 (EC index no) 602-067-00-7	0.2	Acute Tox. 4 (Oral), H302 Aquatic Chronic 2, H411
1,3,5-trimethylbenzene (Component)	(CAS No) 108-67-8 (EC no) 203-604-4 (EC index no) 601-025-00-5	0.2	Flam. Liq. 3, H226 STOT SE 3, H335 Aquatic Chronic 2, H411

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1,4-dichlorobenzene (Component)	(CAS No) 106-46-7 (EC no) 203-400-5 (EC index no) 602-035-00-2	0.2	Eye Irrit. 2, H319 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,2-dichloroethane (Component) substance listed as REACH Candidate substance listed in REACH Annex XIV (1,2-dichloroethane (EDC))	(CAS No) 107-06-2 (EC no) 203-458-1 (EC index no) 602-012-00-7	0.2	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 1B, H350 STOT SE 3, H335
acrylonitrile, inhibited (Component)	(CAS No) 107-13-1 (EC no) 203-466-5 (EC index no) 608-003-00-4	0.2	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1B, H350 STOT SE 3, H335 Aquatic Chronic 2, H411
1,2,3-trimethylbenzene (Component) substance with a Community workplace exposure limit	(CAS No) 526-73-8 (EC no) 208-394-8	0.0004	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Name	Product identifier	Specific concentration limits
methanol (Component)	(CAS No) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X	( 3 =<C < 10) STOT SE 2, H371 (C >= 10) STOT SE 1, H370
carbon tetrachloride (Component)	(CAS No) 56-23-5 (EC no) 200-262-8 (EC index no) 602-008-00-5	( 0.2 =<C < 1) STOT RE 2, H373 (C >= 1) STOT RE 1, H372
carbon disulfide (Component)	(CAS No) 75-15-0 (EC no) 200-843-6 (EC index no) 006-003-00-3	( 0.2 =<C < 1) STOT RE 2, H373 (C >= 1) STOT RE 1, H372 (C >= 1) Repr. 2, H361fd
1,4-dichloro-2-butene, trans- (Component)	(CAS No) 110-57-6 (EC no) 203-779-7 (EC index no) 602-073-00-X	(C >= 0.01) Carc. 1B, H350 (C >= 5) STOT SE 3, H335
tetrahydrofuran (Component)	(CAS No) 109-99-9 (EC no) 203-726-8 (EC index no) 603-025-00-0	(C >= 25) Eye Irrit. 2, H319 (C >= 25) STOT SE 3, H335
1,3,5-trimethylbenzene (Component)	(CAS No) 108-67-8 (EC no) 203-604-4 (EC index no) 601-025-00-5	(C >= 25) STOT SE 3, H335

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a poison center or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Immediately call a poison center or doctor/physician.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: May cause cancer by inhalation.
Symptoms/injuries after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.
Symptoms/injuries after ingestion	: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Extremely flammable liquid and vapor.
- Explosion hazard : May form flammable/explosive vapor-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. May form explosive peroxides.

### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire reaches explosives. Evacuate area.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapors/spray.
- Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up in absorbent material. Collect spillage.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Keep away from sources of ignition - No smoking.
- Hygiene measures : Do not eat, drink or smoke when using this product. Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment. Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.
- Incompatible products : Oxidizing agent.
- Incompatible materials : Direct sunlight. Heat sources.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

chlorobenzene (108-90-7)		
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	75 mppcf
benzene (71-43-2)		
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	25 ppm
1,4-dichlorobenzene (106-46-7)		
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	450 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	75 ppm

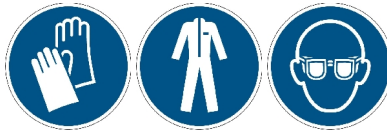
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1,4-dichlorobenzene (106-46-7)		
USA OSHA	OSHA PEL (STEL) (mg/m <sup>3</sup> )	675 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (STEL) (ppm)	110 ppm

### 8.2. Exposure controls

Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.  
Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.



Hand protection : Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration.  
Eye protection : Chemical goggles or safety glasses. Safety glasses.  
Skin and body protection : Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.  
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.  
Other information : Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Color : Colorless.  
Odor : characteristic.  
pH : No data available  
Melting point : No data available  
Freezing point : No data available  
Boiling point : No data available  
Flash point : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : Extremely flammable liquid and vapor  
Relative density : No data available  
Solubility : No data available  
Explosive properties : May form explosive peroxides.  
Oxidizing properties : No data available  
Explosion limits : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Extremely flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions

Reacts vigorously with strong oxidizers and acids.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Sparks. Heat. Overheating. Open flame.

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

May release flammable gases. May form explosive peroxides.



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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin.

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ATE CLP (oral)	101.480 mg/kg body weight
ATE CLP (dermal)	295.792 mg/kg body weight
Methylene Chloride (75-09-2)	
LD50 oral rat	> 2000 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study)
Bromobenzene (108-86-1)	
LD50 oral rat	2383 mg/kg (Rat)
ATE CLP (oral)	2383.000 mg/kg body weight
hexachloroethane (67-72-1)	
LD50 oral rat	4460 mg/kg (Rat)
LD50 dermal rabbit	32000 mg/kg (Rabbit)
ATE CLP (oral)	4460.000 mg/kg body weight
ATE CLP (dermal)	32000.000 mg/kg body weight
hexachlorobuta-1,3-diene (87-68-3)	
LD50 oral rat	90 mg/kg (Rat)
LD50 dermal rabbit	1211 mg/kg (Rabbit)
ATE CLP (oral)	90.000 mg/kg body weight
ATE CLP (dermal)	1211.000 mg/kg body weight
ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat; Other; Experimental value)
LD50 dermal rabbit	15415 mg/kg (Rabbit; Literature study; Other; 15432 mg/kg; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	17.8 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	4000 ppm/4h (Rat; Literature study)
ATE CLP (oral)	3500.000 mg/kg body weight
ATE CLP (dermal)	15415.000 mg/kg body weight
ATE CLP (gases)	4000.000 ppmV/4h
ATE CLP (vapors)	17.800 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
diethyl ether (60-29-7)	
LD50 oral rat	1215 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 1600 mg/kg bodyweight; Rat)
LD50 dermal rabbit	> 14200 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	99 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	32000 ppm/4h (Rat)
ATE CLP (oral)	1215.000 mg/kg body weight
ATE CLP (gases)	32000.000 ppmV/4h
ATE CLP (vapors)	99.000 mg/l/4h
ATE CLP (dust, mist)	99.000 mg/l/4h
dibromomethane (74-95-3)	
LD50 oral rat	108 mg/kg (Rat)
LD50 dermal rabbit	> 4000 mg/kg (Rabbit)
ATE CLP (oral)	108.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
m-xylene (108-38-3)	
LD50 oral rat	5011 - 6630 mg/kg (Rat)
ATE CLP (oral)	5011.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
cis-1,3-Dichloropropene (10061-01-5)	
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight

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<b>cis-1,3-Dichloropropene (10061-01-5)</b>	
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>naphthalene (91-20-3)</b>	
LD50 oral rat	> 1100 mg/kg (Rat)
LD50 dermal rat	> 2500 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)
ATE CLP (oral)	500.000 mg/kg body weight
<b>chloroform (67-66-3)</b>	
LD50 oral rat	695 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 908 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value; 1117 mg/kg bodyweight; Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit; No reliable data available; >3980 mg/kg bodyweight; Rabbit)
ATE CLP (oral)	695.000 mg/kg body weight
ATE CLP (gases)	700.000 ppmV/4h
ATE CLP (vapors)	3.000 mg/l/4h
ATE CLP (dust, mist)	0.500 mg/l/4h
<b>chlorobenzene (108-90-7)</b>	
LD50 oral rat	> 1427 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; >2000 mg/kg bodyweight; Rat)
LD50 dermal rat	> 2000 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2200 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	17 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	3630 ppm/4h (Rat)
ATE CLP (gases)	3630.000 ppmV/4h
ATE CLP (vapors)	17.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>carbon tetrachloride (56-23-5)</b>	
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
ATE CLP (gases)	700.000 ppmV/4h
ATE CLP (vapors)	3.000 mg/l/4h
ATE CLP (dust, mist)	0.500 mg/l/4h
<b>carbon disulfide (75-15-0)</b>	
LD50 oral rat	3188 mg/kg (Rat)
ATE CLP (oral)	3188.000 mg/kg body weight
<b>bromoform (75-25-2)</b>	
LD50 oral rat	933 mg/kg (Rat)
ATE CLP (oral)	933.000 mg/kg body weight
ATE CLP (gases)	700.000 ppmV/4h
ATE CLP (vapors)	3.000 mg/l/4h
ATE CLP (dust, mist)	0.500 mg/l/4h
<b>bromodichloromethane (75-27-4)</b>	
LD50 oral rat	916 mg/kg (Rat)
ATE CLP (oral)	916.000 mg/kg body weight
<b>iodomethane (74-88-4)</b>	
LD50 oral rat	7984 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 131,98 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 2000 mg/kg body weight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	401 mg/l/4h (Rat; Calculated value; 1,3 mg/l/4h; Rat)
LC50 inhalation rat (ppm)	691 ppm/4h (Rat; Experimental value)
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (gases)	691.000 ppmV/4h
ATE CLP (vapors)	3.000 mg/l/4h
ATE CLP (dust, mist)	0.500 mg/l/4h
<b>tetrachloroethylene (127-18-4)</b>	
LD50 oral rat	> 2000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 3835 mg/kg bodyweight; Rat; Equivalent or similar to OECD 401; Experimental value; 3005 mg/kg bodyweight; Rat; Experimental value)

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<b>tetrachloroethylene (127-18-4)</b>	
LD50 dermal rabbit	> 3000 mg/kg (Rabbit; Literature study; >10000 mg/kg bodyweight; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	27.58 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	3786 ppm/4h (Rat; Experimental value)
ATE CLP (gases)	3786.000 ppmV/4h
ATE CLP (vapors)	27.580 mg/l/4h
ATE CLP (dust, mist)	27.580 mg/l/4h
<b>cyclohexane (110-82-7)</b>	
LD50 oral rat	> 12705 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; >5000 mg/kg bodyweight; Rat)
LD50 dermal rabbit	> 2000 mg/kg body weight (Rabbit; Experimental value; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	> 19.07 mg/l/4h (Rat; Experimental value)
LC50 inhalation rat (ppm)	> 5540 ppm/4h (Rat)
<b>trichloroethylene (79-01-6)</b>	
LD50 oral rat	4920 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	66 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	12000 ppm/4h (Rat)
ATE CLP (oral)	4920.000 mg/kg body weight
ATE CLP (gases)	12000.000 ppmV/4h
ATE CLP (vapors)	66.000 mg/l/4h
ATE CLP (dust, mist)	66.000 mg/l/4h
<b>1,4-dichloro-2-butene, trans- (110-57-6)</b>	
LC50 inhalation rat (mg/l)	0.45 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	86 ppm/4h (Rat)
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
ATE CLP (gases)	86.000 ppmV/4h
ATE CLP (vapors)	0.450 mg/l/4h
ATE CLP (dust, mist)	0.450 mg/l/4h
<b>1,3-dichloropropene, trans- (10061-02-6)</b>	
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>isopropylbenzene (98-82-8)</b>	
LD50 oral rat	> 2000 mg/kg (Rat; Other; Literature study; 4000 mg/kg bodyweight; Rat; Other; Inconclusive, insufficient data)
LD50 dermal rabbit	10578 mg/kg (Rabbit; Literature study; Other)
LC50 inhalation rat (mg/l)	40 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	8000 ppm/4h (Rat; Literature study)
ATE CLP (dermal)	10578.000 mg/kg body weight
ATE CLP (gases)	8000.000 ppmV/4h
ATE CLP (vapors)	40.000 mg/l/4h
ATE CLP (dust, mist)	40.000 mg/l/4h
<b>tetrahydrofuran (109-99-9)</b>	
LD50 oral rat	2.3 - 3.6 (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 1650 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rat	> 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	54 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	18200 ppm/4h (Rat; Literature study)
ATE CLP (oral)	2.300 mg/kg body weight
ATE CLP (gases)	18200.000 ppmV/4h
ATE CLP (vapors)	54.000 mg/l/4h
ATE CLP (dust, mist)	54.000 mg/l/4h
<b>benzene (71-43-2)</b>	
LD50 oral rat	> 930 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; > 2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 8240 mg/kg (Rabbit; Experimental value; 21 CFR 191.10; > 9.4; Rabbit)

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<b>benzene (71-43-2)</b>	
LC50 inhalation rat (mg/l)	43.767 mg/l/4h (Rat; Experimental value)
LC50 inhalation rat (ppm)	13700 ppm/4h (Rat; Experimental value)
ATE CLP (gases)	13700.000 ppmV/4h
ATE CLP (vapors)	43.767 mg/l/4h
ATE CLP (dust, mist)	43.767 mg/l/4h
<b>styrene (100-42-5)</b>	
LD50 oral rat	5000 mg/kg (Rat; Literature study; >6000 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rat	2820 mg/kg (Rat; Literature study; OECD 402: Acute Dermal Toxicity; >2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	5010 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	12 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	2770 ppm/4h (Rat; Literature study)
ATE CLP (oral)	5000.000 mg/kg body weight
ATE CLP (dermal)	2820.000 mg/kg body weight
ATE CLP (gases)	2770.000 ppmV/4h
ATE CLP (vapors)	12.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>sec-butylbenzene (135-98-8)</b>	
LD50 oral rat	6300 mg/kg (Rat)
LD50 dermal rabbit	> 13000 mg/kg (Rabbit)
ATE CLP (oral)	6300.000 mg/kg body weight
<b>p-xylene (106-42-3)</b>	
LD50 oral rat	4030 mg/kg (Rat)
LC50 inhalation rat (mg/l)	20 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	4740 ppm/4h (Rat)
ATE CLP (oral)	4030.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (gases)	4740.000 ppmV/4h
ATE CLP (vapors)	20.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>o-xylene (95-47-6)</b>	
LD50 oral rat	3608 mg/kg (Rat)
ATE CLP (oral)	3608.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>n-propylbenzene (103-65-1)</b>	
LD50 oral rat	6040 mg/kg (Rat; Literature study)
ATE CLP (oral)	6040.000 mg/kg body weight
<b>butylbenzene (104-51-8)</b>	
LD50 oral rat	> 5000 mg/kg (Rat)
<b>toluene (108-88-3)</b>	
LD50 oral rat	> 2000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 5580 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	12223 mg/kg (Rabbit; Literature study; Other; >5000 mg/kg bodyweight; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	> 20 mg/l/4h (Rat; Literature study)
ATE CLP (dermal)	12223.000 mg/kg body weight
<b>1,2,3-trichloropropane (96-18-4)</b>	
LD50 oral rat	442 mg/kg (Rat)
LD50 dermal rabbit	850 mg/kg (Rabbit)
ATE CLP (oral)	442.000 mg/kg body weight
ATE CLP (dermal)	850.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>1,1,1,2-tetrachloroethane (630-20-6)</b>	
LD50 oral rat	670 mg/kg (Rat; Literature study)

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<b>1,1,1,2-tetrachloroethane (630-20-6)</b>	
LD50 dermal rabbit	20000 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	14 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	2100 ppm/4h (Rat; Literature study)
ATE CLP (oral)	670.000 mg/kg body weight
ATE CLP (dermal)	20000.000 mg/kg body weight
ATE CLP (gases)	2100.000 ppmV/4h
ATE CLP (vapors)	14.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>1,1,1-trichloroethane (71-55-6)</b>	
LD50 oral rat	9600 mg/kg (Rat)
LD50 dermal rabbit	> 15800 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	99 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	18400 ppm/4h (Rat)
ATE CLP (oral)	9600.000 mg/kg body weight
ATE CLP (gases)	18400.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>1,1,2,2-tetrachloroethane (79-34-5)</b>	
LD50 oral rat	250 mg/kg (Rat; Literature study)
LD50 dermal rabbit	3990 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	8.6 mg/l/4h (Rat; Literature study)
ATE CLP (oral)	250.000 mg/kg body weight
ATE CLP (dermal)	5.000 mg/kg body weight
ATE CLP (gases)	100.000 ppmV/4h
ATE CLP (vapors)	8.600 mg/l/4h
ATE CLP (dust, mist)	0.050 mg/l/4h
<b>1,1,2-trichloroethane (79-00-5)</b>	
LD50 oral rat	836 mg/kg (Rat; Literature study)
LD50 dermal rabbit	5377 mg/kg (Rabbit; Literature study; OECD 402: Acute Dermal Toxicity; 5380 mg/kg bodyweight; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	7.8 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	1413 ppm/4h (Rat; Literature study)
ATE CLP (oral)	836.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (gases)	1413.000 ppmV/4h
ATE CLP (vapors)	7.800 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>1,1-dichloroethane (75-34-3)</b>	
LD50 oral rat	725 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2348 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	54 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	13000 ppm/4h (Rat; Literature study)
ATE CLP (oral)	725.000 mg/kg body weight
ATE CLP (gases)	13000.000 ppmV/4h
ATE CLP (vapors)	54.000 mg/l/4h
ATE CLP (dust, mist)	54.000 mg/l/4h
<b>1,1-dichloroethene (75-35-4)</b>	
LD50 oral rat	200 - 1500 mg/kg (Rat)
LC50 inhalation rat (mg/l)	25.6 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	6350 ppm/4h (Rat)
ATE CLP (oral)	200.000 mg/kg body weight
ATE CLP (gases)	6350.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>bromochloromethane (74-97-5)</b>	
LD50 oral rat	5000 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)
ATE CLP (oral)	5000.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h

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<b>bromochloromethane (74-97-5)</b>	
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>1,2,3-trichlorobenzene (87-61-6)</b>	
LD50 oral rat	1800 mg/kg (Rat)
ATE CLP (oral)	1800.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
<b>1,2,4-trichlorobenzene (120-82-1)</b>	
LD50 oral rat	756 mg/kg (Rat)
LD50 dermal rat	6139 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 4.1 mg/l/4h (Rat)
ATE CLP (oral)	756.000 mg/kg body weight
ATE CLP (dermal)	6139.000 mg/kg body weight
<b>1,2,4-trimethylbenzene (95-63-6)</b>	
LD50 oral rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature; 6000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 3440 mg/kg (Rat; Read-across; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	18 mg/l/4h (Rat)
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	18.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>1,2-dibromo-3-chloropropane (96-12-8)</b>	
LD50 oral rat	170 mg/kg (Rat)
ATE CLP (oral)	170.000 mg/kg body weight
<b>1,2-Dibromoethane (106-93-4)</b>	
LD50 oral rat	108 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 140 mg/kg bodyweight; Rat)
LD50 dermal rat	300 mg/kg (Rat)
LD50 dermal rabbit	300 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (ppm)	> 200 ppm/4h (Rat; Experimental value)
ATE CLP (oral)	108.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
ATE CLP (gases)	700.000 ppmV/4h
ATE CLP (vapors)	3.000 mg/l/4h
ATE CLP (dust, mist)	0.500 mg/l/4h
<b>2-methylnaphthalene (91-57-6)</b>	
LD50 oral rat	1630 mg/kg (Rat)
ATE CLP (oral)	1630.000 mg/kg body weight
<b>1,1-dichloropropene (563-58-6)</b>	
ATE CLP (oral)	100.000 mg/kg body weight
<b>4-Isopropyltoluene (99-87-6)</b>	
LD50 oral rat	4750 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	28 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	5000 ppm/4h (Rat)
ATE CLP (oral)	4750.000 mg/kg body weight
ATE CLP (gases)	5000.000 ppmV/4h
ATE CLP (vapors)	28.000 mg/l/4h
ATE CLP (dust, mist)	28.000 mg/l/4h
<b>1,2-dichlorobenzene (95-50-1)</b>	
LD50 oral rat	500 mg/kg (Rat)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	9.5 mg/l/4h (Rat)
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (vapors)	9.500 mg/l/4h
ATE CLP (dust, mist)	9.500 mg/l/4h
<b>2-chlorotoluene (95-49-8)</b>	
LD50 oral rat	> 2000 mg/kg (Rat)

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<b>2-chlorotoluene (95-49-8)</b>	
LD50 dermal rat	> 1083 mg/kg (Rat)
LD50 dermal rabbit	> 7940 mg/kg (Rabbit)
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
<b>1,4-dichlorobenzene (106-46-7)</b>	
LD50 dermal rat	> 6000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)
<b>1,3-dichlorobenzene (541-73-1)</b>	
LD50 oral rat	580 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LC50 inhalation rat (mg/l)	> 17.6 mg/l/4h (Rat; Literature study)
ATE CLP (oral)	580.000 mg/kg body weight
<b>1,3,5-trimethylbenzene (108-67-8)</b>	
LD50 oral rat	6000 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Read-across)
LD50 dermal rat	> 2000 mg/kg bw/day (Rat; Read-across; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	24 mg/l/4h (Rat; Literature study)
ATE CLP (oral)	6000.000 mg/kg body weight
ATE CLP (vapors)	24.000 mg/l/4h
ATE CLP (dust, mist)	24.000 mg/l/4h
<b>1,2-dichloroethane (107-06-2)</b>	
LD50 oral rat	770 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	2800 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	7.758 mg/l/4h (Rat; Experimental value)
LC50 inhalation rat (ppm)	1886 ppm/4h (Rat; Experimental value)
ATE CLP (oral)	770.000 mg/kg body weight
ATE CLP (dermal)	2800.000 mg/kg body weight
ATE CLP (gases)	1886.000 ppmV/4h
ATE CLP (vapors)	7.758 mg/l/4h
ATE CLP (dust, mist)	7.758 mg/l/4h
<b>acrylonitrile, inhibited (107-13-1)</b>	
LD50 oral rat	78 mg/kg (Rat)
LD50 dermal rat	148 mg/kg (Rat)
LD50 dermal rabbit	63 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.72 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	333 ppm/4h (Rat)
ATE CLP (oral)	78.000 mg/kg body weight
ATE CLP (dermal)	63.000 mg/kg body weight
ATE CLP (gases)	333.000 ppmV/4h
ATE CLP (vapors)	0.720 mg/l/4h
ATE CLP (dust, mist)	0.720 mg/l/4h
<b>methanol (67-56-1)</b>	
LD50 oral rat	> 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rabbit	15800 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	85 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	64000 ppm/4h (Rat; Literature study)
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
ATE CLP (gases)	700.000 ppmV/4h
ATE CLP (vapors)	3.000 mg/l/4h
ATE CLP (dust, mist)	0.500 mg/l/4h

Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitization	: Not classified Based on available data, the classification criteria are not met

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Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: May cause cancer. May cause cancer
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Causes damage to organs.
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Toxic if swallowed. Toxic in contact with skin.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - air	: Dangerous for the ozone layer.
Ecology - water	: Harmful to aquatic life with long lasting effects.

<b>Methylene Chloride (75-09-2)</b>	
LC50 fish 1	193 mg/l (LC50; 96 h; Pimephales promelas)
EC50 Daphnia 1	168.2 mg/l (EC50; 48 h)
<b>Bromobenzene (108-86-1)</b>	
LC50 fish 1	6.8 mg/l (LC50; 48 h)
<b>hexachloroethane (67-72-1)</b>	
EC50 Daphnia 1	1.4 mg/l (EC50)
LC50 fish 2	0.84 mg/l (LC50; 96 h)
Threshold limit algae 1	7.75 mg/l (EC50; 96 h)
<b>hexachlorobuta-1,3-diene (87-68-3)</b>	
LC50 fish 2	0.250 mg/l (LC50; 96 h)
EC50 other aquatic organisms 2	0.21 mg/l (96 h; Lymnaea sp.)
Threshold limit algae 2	> 25 mg/l (EC0)
<b>ethylbenzene (100-41-4)</b>	
LC50 fish 2	4.2 mg/l (LC50; OECD 203; Fish, Acute Toxicity Test; 96 h; Salmo gairdneri; Semi-static system; Fresh water; Experimental value)
<b>diethyl ether (60-29-7)</b>	
LC50 fish 2	2560 mg/l (LC50; 96 h; Pimephales promelas)
EC50 Daphnia 2	1380 mg/l (EC50; 48 h)
<b>m-xylene (108-38-3)</b>	
EC50 Daphnia 1	4.7 mg/l (EC50; 48 h)
LC50 fish 2	8.4 mg/l (LC50; 96 h)
<b>naphthalene (91-20-3)</b>	
EC50 Daphnia 1	2.16 mg/l (EC50; 48 h; Daphnia magna)
LC50 fish 2	0.11 mg/l (LC50; 96 h; Oncorhynchus mykiss)
Threshold limit algae 1	0.4 mg/l (EC50; 72 h; Skeletonema costatum)
<b>chloroform (67-66-3)</b>	
LC50 fish 1	18.2 ppm (LC50; ASTM; 96 h; Oncorhynchus mykiss; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 2	152.5 mg/l (EC50; US EPA; 48 h; Daphnia magna; Static system; Salt water; Experimental value)
<b>chlorobenzene (108-90-7)</b>	
LC50 fish 2	4.7 mg/l (LC50; 96 h)
EC50 Daphnia 2	0.59 mg/l (EC50; OECD 202; Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
<b>carbon tetrachloride (56-23-5)</b>	
LC50 fish 1	27 mg/l (LC50; 96 h; Lepomis macrochirus)
EC50 Daphnia 1	29 mg/l (EC50; 48 h)
Threshold limit algae 1	> 600 mg/l (EC0; 168 h)
<b>carbon disulfide (75-15-0)</b>	
LC50 fish 2	4.0 mg/l (LC50; OECD 203; Fish, Acute Toxicity Test; 96 h; Poecilia reticulata)



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<b>carbon disulfide (75-15-0)</b>	
EC50 Daphnia 2	2.1 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna)
Threshold limit algae 1	21 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 96 h; Chlorella sp.)
<b>bromoform (75-25-2)</b>	
LC50 fish 2	7.1 mg/l (LC50; 96 h)
EC50 Daphnia 2	7.2 - 46 mg/l (EC50; 48 h)
<b>iodomethane (74-88-4)</b>	
LC50 fish 2	1.4 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oncorhynchus mykiss; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	0.57 mg/l (LC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Semi-static system; Fresh water; Experimental value)
Threshold limit algae 2	2.55 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
<b>tetrachloroethylene (127-18-4)</b>	
EC50 Daphnia 1	8.5 mg/l (EC50; ASTM; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 2	3.64 mg/l (EC50; Other; 72 h; Chlamydomonas angulosa; Fresh water)
<b>cyclohexane (110-82-7)</b>	
LC50 fish 1	4.53 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	0.9 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 1	3.428 mg/l (EbC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum)
Threshold limit algae 2	0.925 mg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum)
<b>trichloroethylene (79-01-6)</b>	
LC50 fish 1	40.7 mg/l (LC50; 96 h; Pimephales promelas)
EC50 Daphnia 2	20.8 mg/l (EC50; 48 h)
<b>isopropylbenzene (98-82-8)</b>	
EC50 Daphnia 1	2.14 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
<b>tetrahydrofuran (109-99-9)</b>	
LC50 fish 1	2160 mg/l (LC50; Equivalent or similar to OECD 203; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
Threshold limit algae 2	3700 mg/l (EC0; Other; 8 days; Scenedesmus quadricauda; Static system; Fresh water; Experimental value)
<b>benzene (71-43-2)</b>	
LC50 fish 1	5.3 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 2	10 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna)
Threshold limit algae 1	100 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
<b>p-xylene (106-42-3)</b>	
LC50 fish 1	2.6 mg/l (LC50; 96 h)
EC50 Daphnia 2	1.4 mg/l (EC50; 48 h)
<b>o-xylene (95-47-6)</b>	
EC50 other aquatic organisms 1	4.7 mg/l (72 h; Selenastrum capricornutum; Growth)
LC50 fish 2	8.05 mg/l (LC50; 96 h)
EC50 Daphnia 2	3.2 mg/l (EC50; 48 h)
<b>n-propylbenzene (103-65-1)</b>	
LC50 fish 1	1.55 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 1	2 mg/l (EC50; 24 h; Daphnia magna)
Threshold limit algae 2	1.8 mg/l (EC50; 72 h; Selenastrum capricornutum)
<b>butylbenzene (104-51-8)</b>	
EC50 Daphnia 1	0.34 mg/l (EC50; 48 h)
<b>1,2,3-trichloropropane (96-18-4)</b>	
EC50 Daphnia 1	35.4 mg/l (EC50; 48 h)
LC50 fish 2	75 mg/l (LC50; 96 h; Lepomis macrochirus)
Threshold limit algae 1	170 mg/l (EC50; 3 h)

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<b>1,1,1,2-tetrachloroethane (630-20-6)</b>	
LC50 fish 1	16 - 24 mg/l (LC50; 96 h; <i>Lepomis macrochirus</i> ; Static system)
EC50 Daphnia 1	17 - 30 mg/l (EC50; 48 h; <i>Daphnia magna</i> )
<b>1,1,1-trichloroethane (71-55-6)</b>	
LC50 fish 1	40 mg/l (LC50; 96 h; <i>Lepomis macrochirus</i> )
EC50 Daphnia 2	2384 mg/l (EC50; 48 h)
<b>1,1,2,2-tetrachloroethane (79-34-5)</b>	
EC50 Daphnia 1	9.32 mg/l (EC50; 48 h; <i>Daphnia magna</i> ; Static system)
LC50 fish 2	20.3 ppm (LC50; 96 h; <i>Pimephales promelas</i> ; Flow-through system)
Threshold limit algae 1	136 mg/l (EC50; 96 h; <i>Selenastrum capricornutum</i> )
<b>1,1,2-trichloroethane (79-00-5)</b>	
LC50 fish 2	40 mg/l (LC50; EPA 660/3 - 75/009; 96 h; <i>Lepomis macrochirus</i> ; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	77.8 mg/l (EC50; 48 h; <i>Daphnia magna</i> )
Threshold limit algae 1	200 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; <i>Desmodesmus subspicatus</i> ; Static system; Fresh water; Experimental value)
<b>1,1-dichloroethene (75-35-4)</b>	
EC50 Daphnia 1	11.6 - 79 mg/l (EC50; 48 h)
LC50 fish 2	74 - 220 mg/l (LC50; 96 h; <i>Lepomis macrochirus</i> )
<b>bromochloromethane (74-97-5)</b>	
LC50 fish 1	338 mg/l (LC50; 48 h)
<b>1,2,3-trichlorobenzene (87-61-6)</b>	
LC50 fish 1	7.05 mg/l (LC50; 96 h)
EC50 Daphnia 2	2.72 mg/l (EC50; 48 h)
<b>1,2,4-trichlorobenzene (120-82-1)</b>	
LC50 fish 1	1.32 mg/l (LC50; 96 h)
EC50 Daphnia 1	0.86 mg/l (EC50; 48 h)
<b>1,2,4-trimethylbenzene (95-63-6)</b>	
LC50 fish 1	7.72 mg/l (LC50; 96 h; <i>Pimephales promelas</i> ; Flow-through system; Fresh water)
EC50 Daphnia 1	3.6 mg/l (LC50; OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test; 48 h; <i>Daphnia magna</i> ; Static system; Fresh water; Experimental value)
Threshold limit algae 2	2.356 mg/l (EC50; ECOSAR; 96 h; Algae; Fresh water)
<b>1,2-dibromo-3-chloropropane (96-12-8)</b>	
LC50 fish 2	20 mg/l (LC50; 48 h)
<b>1,2-Dibromoethane (106-93-4)</b>	
EC50 Daphnia 1	40 mg/l (EC50; 3 h)
LC50 fish 2	4.8 mg/l (LC50; 48 h)
Threshold limit algae 1	4 mg/l (EC50; 168 h)
Threshold limit algae 2	> 4.48 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; <i>Pseudokirchneriella subcapitata</i> ; Static system; Fresh water; Experimental value)
<b>2-methylnaphthalene (91-57-6)</b>	
LC50 fish 1	8 mg/l (LC50; 96 h)
<b>4-Isopropyltoluene (99-87-6)</b>	
LC50 fish 1	48 ppm (LC50; 96 h; <i>Cyprinodon variegatus</i> )
EC50 Daphnia 1	6.5 mg/l (EC50; 48 h)
<b>1,2-dichlorobenzene (95-50-1)</b>	
LC50 fish 1	1.58 mg/l (LC50; 96 h)
EC50 Daphnia 2	0.74 mg/l (EC50; 48 h)
<b>2-chlorotoluene (95-49-8)</b>	
EC50 Daphnia 1	20 - 74 mg/l (EC50; 24 h)
LC50 fish 2	2.3 mg/l (LC50; 96 h; <i>Salmo gairdneri</i> )
<b>1,4-dichlorobenzene (106-46-7)</b>	
LC50 fish 2	1.12 mg/l (LC50; 96 h; <i>Salmo gairdneri</i> )
EC50 Daphnia 2	0.7 mg/l (EC50; 48 h)
<b>1,3-dichlorobenzene (541-73-1)</b>	
LC50 fish 1	1.61 mg/l (LC50; 96 h)
EC50 Daphnia 1	1.2 mg/l (EC50; Equivalent or similar to OECD 202; 48 h; <i>Daphnia magna</i> ; Static system; Fresh water; Experimental value)

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<b>1,3,5-trimethylbenzene (108-67-8)</b>	
EC50 Daphnia 1	6 mg/l (LC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 2	25 mg/l (EC50; DIN 38412-9; 48 h; Scenedesmus subspicatus; Static system; Fresh water; Experimental value)
<b>1,2-dichloroethane (107-06-2)</b>	
EC50 Daphnia 1	155 - 220 mg/l (EC50; 48 h)
LC50 fish 2	225 mg/l (LC50; 96 h; Salmo gairdneri)
<b>acrylonitrile, inhibited (107-13-1)</b>	
EC50 Daphnia 1	7.55 mg/l (EC50; 48 h)
LC50 fish 2	25 mg/l (LC50; 96 h; Brachydanio rerio)
<b>methanol (67-56-1)</b>	
LC50 fish 1	15400 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	> 10000 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 fish 2	10800 mg/l (LC50; 96 h; Salmo gairdneri)
<b>12.2. Persistence and degradability</b>	
<b>Custom VOA Standard</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.
<b>Methylene Chloride (75-09-2)</b>	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil.
<b>Bromobenzene (108-86-1)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>hexachloroethane (67-72-1)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>hexachlorobuta-1,3-diene (87-68-3)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradability in soil: no data available.
<b>ethylbenzene (100-41-4)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.44 g O <sub>2</sub> /g substance (20d.)
Chemical oxygen demand (COD)	2.1 g O <sub>2</sub> /g substance
ThOD	3.17 g O <sub>2</sub> /g substance
BOD (% of ThOD)	45.4 (20 days)
<b>diethyl ether (60-29-7)</b>	
Persistence and degradability	Not readily biodegradable in water. No (test)data on mobility of the substance available. Reacts with air.
Biochemical oxygen demand (BOD)	0.03 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.026 g O <sub>2</sub> /g substance (KMnO <sub>4</sub> )
ThOD	2.60 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.012
<b>dibromomethane (74-95-3)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water.
<b>m-xylene (108-38-3)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photolysis in the air. Photooxidation in the air.
Biochemical oxygen demand (BOD)	2.53 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.63 g O <sub>2</sub> /g substance
ThOD	3.1 g O <sub>2</sub> /g substance
<b>cis-1,3-Dichloropropene (10061-01-5)</b>	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil.
<b>naphthalene (91-20-3)</b>	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.22 g O <sub>2</sub> /g substance
ThOD	2.99 g O <sub>2</sub> /g substance

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<b>chloroform (67-66-3)</b>	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Low potential for adsorption in soil.
ThOD	0.33 - 1.35 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.015 - 0.06
<b>chlorobenzene (108-90-7)</b>	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	0.03 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.41 g O <sub>2</sub> /g substance
ThOD	2.06 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.0145
<b>carbon tetrachloride (56-23-5)</b>	
Persistence and degradability	Not readily biodegradable in water. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.001 g O <sub>2</sub> /g substance
ThOD	0.21 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0
<b>carbon disulfide (75-15-0)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradability in soil: no data available.
<b>bromoform (75-25-2)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>bromodichloromethane (75-27-4)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>iodomethane (74-88-4)</b>	
Persistence and degradability	Not readily biodegradable in water. Highly mobile in soil. Photolysis in the air.
<b>tetrachloroethylene (127-18-4)</b>	
Persistence and degradability	Not readily biodegradable in water. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	0.06 g O <sub>2</sub> /g substance
ThOD	0.39 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.15
<b>cyclohexane (110-82-7)</b>	
Persistence and degradability	Readily biodegradable in water. Non degradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	0.22 g O <sub>2</sub> /g substance
ThOD	3.425 g O <sub>2</sub> /g substance
BOD (% of ThOD)	< 0.5 (Literature study)
<b>1,2,3-trimethylbenzene (526-73-8)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. Photodegradation in the air.
<b>trichloroethylene (79-01-6)</b>	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Biodegradable in the soil under anaerobic conditions.
<b>1,3-dichloropropene, trans- (10061-02-6)</b>	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil.
<b>isopropylbenzene (98-82-8)</b>	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.28 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.42 g O <sub>2</sub> /g substance
ThOD	3.20 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.40
<b>tetrahydrofuran (109-99-9)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Chemical oxygen demand (COD)	1.855 g O <sub>2</sub> /g substance
ThOD	2.44 g O <sub>2</sub> /g substance
<b>benzene (71-43-2)</b>	
Persistence and degradability	Readily biodegradable in water. Ozonation in water. Forming sediments in water. Biodegradable in the soil. Low potential for adsorption in soil. Photolysis in the air.

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<b>benzene (71-43-2)</b>	
Biochemical oxygen demand (BOD)	2.18 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.15 g O <sub>2</sub> /g substance
ThOD	3.10 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.70
<b>styrene (100-42-5)</b>	
Persistence and degradability	Readily biodegradable in water. Non degradable in the soil. Low potential for adsorption in soil. Photodegradation in the air.
Chemical oxygen demand (COD)	2.80 g O <sub>2</sub> /g substance
ThOD	3.07 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.42
<b>sec-butylbenzene (135-98-8)</b>	
Persistence and degradability	Biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil.
Chemical oxygen demand (COD)	3.219 g O <sub>2</sub> /g substance
<b>p-xylene (106-42-3)</b>	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	1.40 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.56 g O <sub>2</sub> /g substance
ThOD	3.125 g O <sub>2</sub> /g substance
<b>o-xylene (95-47-6)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	1.64 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.91 g O <sub>2</sub> /g substance
ThOD	3.125 g O <sub>2</sub> /g substance
<b>n-propylbenzene (103-65-1)</b>	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil. Adsorbs into the soil.
<b>butylbenzene (104-51-8)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil.
ThOD	3.22 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.14 (Calculated value)
<b>toluene (108-88-3)</b>	
Persistence and degradability	Readily biodegradable in water. easily degradable in the soil.
Biochemical oxygen demand (BOD)	2.15 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.52 g O <sub>2</sub> /g substance
ThOD	3.13 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.69
<b>1,2,3-trichloropropane (96-18-4)</b>	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil.
<b>1,1,1,2-tetrachloroethane (630-20-6)</b>	
Persistence and degradability	Readily biodegradable in water. No (test)data on mobility of the substance available.
<b>1,1,1-trichloroethane (71-55-6)</b>	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil.
<b>1,1,2-tetrachloroethane (79-34-5)</b>	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. No (test)data on mobility of the substance available.
<b>1,1,2-trichloroethane (79-00-5)</b>	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Highly mobile in soil.
<b>1,1-dichloroethane (75-34-3)</b>	
Persistence and degradability	Not readily biodegradable in water. Not readily biodegradable in the soil. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0.002 g O <sub>2</sub> /g substance
ThOD	0.81 - 0.97 g O <sub>2</sub> /g substance
<b>1,1-dichloroethene (75-35-4)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>bromochloromethane (74-97-5)</b>	
Persistence and degradability	Not readily biodegradable in water. Biodegradability in soil: no data available.

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<b>1,2,3-trichlorobenzene (87-61-6)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>1,2,4-trichlorobenzene (120-82-1)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	0 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0
<b>1,2,4-trimethylbenzene (95-63-6)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Low potential for mobility in soil. Photodegradation in the air.
Chemical oxygen demand (COD)	0.44 g O <sub>2</sub> /g substance
<b>1,2-dibromo-3-chloropropane (96-12-8)</b>	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil.
<b>1,2-Dibromoethane (106-93-4)</b>	
Persistence and degradability	Not readily biodegradable in water. No significant hydrolysis. Non degradable in the soil. Highly mobile in soil.
<b>2-methylnaphthalene (91-57-6)</b>	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water.
<b>1,1-dichloropropene (563-58-6)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>4-Isopropyltoluene (99-87-6)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>1,2-dichlorobenzene (95-50-1)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil.
BOD (% of ThOD)	0
<b>2-chlorotoluene (95-49-8)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water.
ThOD	2.213 g O <sub>2</sub> /g substance
<b>1,4-dichlorobenzene (106-46-7)</b>	
Persistence and degradability	Readily biodegradable in water. Non degradable in the soil. Adsorbs into the soil.
ThOD	1.52 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.65 (Calculated value)
<b>1,3-dichlorobenzene (541-73-1)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Low potential for adsorption in soil.
<b>1,3,5-trimethylbenzene (108-67-8)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorption to soil is possible. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.0957 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.319 g O <sub>2</sub> /g substance
ThOD	3.19 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.03
<b>1,2-dichloroethane (107-06-2)</b>	
Persistence and degradability	Not readily biodegradable in water. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.0014 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.025 g O <sub>2</sub> /g substance
ThOD	0.98 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.001 (Calculated value)
<b>acrylonitrile, inhibited (107-13-1)</b>	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water. Biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.72 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.39 g O <sub>2</sub> /g substance
ThOD	3.17 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.22
<b>methanol (67-56-1)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O <sub>2</sub> /g substance

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<b>methanol (67-56-1)</b>	
Chemical oxygen demand (COD)	1.42 g O <sub>2</sub> /g substance
ThOD	1.5 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.8 (Literature study)
<b>12.3. Bioaccumulative potential</b>	
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Bioaccumulative potential	Not established.
<b>Methylene Chloride (75-09-2)</b>	
BCF fish 1	2 - 40 (BCF)
Log Pow	1.25 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>Bromobenzene (108-86-1)</b>	
BCF fish 1	8.8 - 34 (BCF)
BCF fish 2	72 (BCF)
BCF other aquatic organisms 1	190 (BCF; 24 h)
Log Pow	2.99 - 3.05
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>hexachloroethane (67-72-1)</b>	
BCF fish 1	1200 (BCF)
BCF fish 2	756 mg/l (BCF; 768 h)
Log Pow	3.34 - 4.62
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).
<b>hexachlorobuta-1,3-diene (87-68-3)</b>	
BCF fish 1	17000 (BCF)
BCF fish 2	7000 (BCF)
BCF other aquatic organisms 1	45.36 (BCF)
BCF other aquatic organisms 2	3000 (BCF)
Log Pow	3.74 - 4.90
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
<b>ethylbenzene (100-41-4)</b>	
BCF fish 1	1 (BCF; Other; 6 weeks; Oncorhynchus kisutch; Flow-through system; Salt water; Literature study)
BCF fish 2	15 - 79 (BCF)
BCF other aquatic organisms 1	4.68 (BCF)
Log Pow	3.15 (Experimental value; 3.6; Experimental value; EU Method A.8: Partition Coefficient; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>diethyl ether (60-29-7)</b>	
BCF fish 1	0.9 - 9.1 (BCF)
Log Pow	0.82 - 0.89 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>dibromomethane (74-95-3)</b>	
BCF fish 1	6 (BCF)
Log Pow	1.22
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>m-xylene (108-38-3)</b>	
BCF fish 1	15 (BCF)
BCF fish 2	24 (BCF)
Log Pow	3.20 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>cis-1,3-Dichloropropene (10061-01-5)</b>	
Log Pow	2.06
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>naphthalene (91-20-3)</b>	
BCF fish 1	23 - 168 (BCF; 8 weeks; Cyprinus carpio)
Log Pow	3.30 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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<b>chloroform (67-66-3)</b>	
BCF fish 2	1.4 - 4.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)
Log Pow	1.97 (Experimental value; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>chlorobenzene (108-90-7)</b>	
BCF fish 1	447 (BCF)
BCF fish 2	3.9 - 40 (BCF)
Log Pow	2.8 - 2.98
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>carbon tetrachloride (56-23-5)</b>	
BCF fish 1	17.4 (BCF)
BCF fish 2	3.1 - 11 (BCF)
BCF other aquatic organisms 1	300 (BCF; 24 h; Chlorella sp.)
BCF other aquatic organisms 2	20 - 114 (BCF)
Log Pow	2.75 - 2.83 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>carbon disulfide (75-15-0)</b>	
BCF fish 1	4.3 - 8 (BCF)
BCF fish 2	< 60 (BCF)
Log Pow	1.94 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>bromoform (75-25-2)</b>	
BCF fish 1	3.2 (BCF)
BCF fish 2	7.7 - 21 (BCF)
BCF other aquatic organisms 1	31.7 (BCF)
BCF other aquatic organisms 2	8.3 - 21 (BCF)
Log Pow	2.37 - 2.5
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>bromodichloromethane (75-27-4)</b>	
Log Pow	1.88 - 2.24
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>iodomethane (74-88-4)</b>	
Log Pow	1.57 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>tetrachloroethylene (127-18-4)</b>	
BCF fish 2	25.8 - 77.1 (BCF; 8 weeks)
Log Pow	3.40 (Experimental value; 2.53; Experimental value; Equivalent or similar to OECD 107; 23 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>cyclohexane (110-82-7)</b>	
BCF fish 2	31 - 129 (BCF; 8 weeks; Cyprinus carpio)
Log Pow	3.44 (Experimental value; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,2,3-trimethylbenzene (526-73-8)</b>	
BCF fish 1	133 - 259 (BCF)
Log Pow	3.66 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>trichloroethylene (79-01-6)</b>	
BCF fish 1	17 (BCF; 336 h)
BCF fish 2	90 (BCF; 72 h; Leuciscus idus)
BCF other aquatic organisms 1	3440 (BCF; 120 h)
BCF other aquatic organisms 2	4270 (BCF; 120 h)
Log Pow	2.29 - 2.42 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,4-dichloro-2-butene, trans- (110-57-6)</b>	
Log Pow	2.11 - 2.6 (QSAR)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).



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<b>1,3-dichloropropene, trans- (10061-02-6)</b>	
Log Pow	2
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>Isopropylbenzene (98-82-8)</b>	
BCF fish 1	35.5 (BCF)
BCF other aquatic organisms 1	94.69 (BCF; BCFBAF v3.00)
Log Pow	3.66 (Experimental value; 3.55; Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 23 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>tetrahydrofuran (109-99-9)</b>	
Log Pow	0.45 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>benzene (71-43-2)</b>	
BCF fish 1	19 (BCF)
BCF fish 2	< 10 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 3 days; Leuciscus idus; Flow-through system; Fresh water; Experimental value)
BCF other aquatic organisms 1	30 (BCF; 24 h; Chlorella sp.)
Log Pow	2.13 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>styrene (100-42-5)</b>	
BCF fish 1	35.5 (BCF)
Log Pow	2.96 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>sec-butylbenzene (135-98-8)</b>	
Log Pow	4.098 - 4.57 (Calculated)
Bioaccumulative potential	Bioaccumable.
<b>p-xylene (106-42-3)</b>	
BCF fish 1	15 (BCF)
BCF fish 2	23 (BCF; 240 h)
Log Pow	3.15 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>o-xylene (95-47-6)</b>	
BCF fish 1	21.4 (BCF)
BCF fish 2	14.1 (BCF)
BCF other aquatic organisms 1	219 (BCF)
Log Pow	3.12 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>n-propylbenzene (103-65-1)</b>	
Log Pow	3.69 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>butylbenzene (104-51-8)</b>	
Log Pow	4.38 (Experimental value)
Bioaccumulative potential	Bioaccumable.
<b>toluene (108-88-3)</b>	
BCF fish 2	90 (BCF; 72 h; Leuciscus idus; Static system; Fresh water)
Log Pow	2.73 (Experimental value; Other; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,2,3-trichloropropane (96-18-4)</b>	
BCF fish 1	5.3 - 13 (BCF)
Log Pow	2.27 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,1,1,2-tetrachloroethane (630-20-6)</b>	
Log Pow	2.93 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>1,1,1-trichloroethane (71-55-6)</b>	
BCF fish 1	9 (BCF; 672 h)
BCF fish 2	0.7 - 4.9 (BCF)

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<b>1,1,1-trichloroethane (71-55-6)</b>	
BCF other aquatic organisms 1	0.7 - 34 (BCF)
BCF other aquatic organisms 2	0 - 10 (BCF)
Log Pow	2.46 - 2.49 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,1,2,2-tetrachloroethane (79-34-5)</b>	
BCF fish 1	4.1 - 13.2 (BCF; Cyprinus carpio)
Log Pow	2.39 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,1,2-trichloroethane (79-00-5)</b>	
BCF fish 1	> > 0.7 - < 6.7, BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 6 weeks; Cyprinus carpio; Flow-through system; Experimental value
Log Pow	1.89 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,1-dichloroethane (75-34-3)</b>	
BCF fish 1	1.2 (BCF; 109 h; Pisces)
Log Pow	1.79 - 1.99 (Literature study)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,1-dichloroethene (75-35-4)</b>	
BCF fish 1	2.5 - 6.4 (BCF)
BCF fish 2	7.8 (BCF)
Log Pow	1.48 - 2.17
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>bromochloromethane (74-97-5)</b>	
BCF fish 1	1.7 - 3.5 (BCF)
Log Pow	1.41
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,2,3-trichlorobenzene (87-61-6)</b>	
BCF fish 1	2600 (BCF)
BCF fish 2	130 - 1200 (BCF)
BCF other aquatic organisms 1	200 (BCF)
Log Pow	4.05 - 4.26
Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ).
<b>1,2,4-trichlorobenzene (120-82-1)</b>	
BCF fish 1	1200 - 3700 (BCF)
BCF fish 2	1140 - 4420 (BCF)
BCF other aquatic organisms 1	250 (BCF; 24 h; Chlorella sp.)
BCF other aquatic organisms 2	142 (BCF)
Log Pow	4.02 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ).
<b>1,2,4-trimethylbenzene (95-63-6)</b>	
BCF fish 1	31 - 275 (BCF; Other; 8 weeks; Cyprinus carpio)
Log Pow	3.63 - 4.09 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation ( $4 \geq \text{Log Kow} \leq 5$ ).
<b>1,2-dibromo-3-chloropropane (96-12-8)</b>	
BCF fish 1	3.6 - 19 (BCF)
Log Pow	2.43 - 2.96
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,2-Dibromoethane (106-93-4)</b>	
BCF fish 1	1.6 - 14.9 (BCF; 6 weeks; Cyprinus carpio)
BCF fish 2	6 (BCF)
BCF other aquatic organisms 1	2.8 (BCF)
Log Pow	1.93 (Experimental value; Equivalent or similar to OECD 107)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>2-methylnaphthalene (91-57-6)</b>	
BCF fish 1	407 (BCF; 624 h; Lepomis macrochirus)
BCF fish 2	190 (BCF; 840 h; Oncorhynchus kisutch)
Log Pow	3.86 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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<b>1,1-dichloropropene (563-58-6)</b>	
Log Pow	2.67 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>4-Isopropyltoluene (99-87-6)</b>	
Log Pow	4.1 - 4.44
<b>1,2-dichlorobenzene (95-50-1)</b>	
BCF fish 1	90 - 260 (BCF)
BCF fish 2	270 - 560 (BCF)
BCF other aquatic organisms 1	14791 (BCF)
BCF other aquatic organisms 2	28840 (BCF)
Log Pow	3.43 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ).
<b>2-chlorotoluene (95-49-8)</b>	
BCF fish 1	20 - 112 (BCF)
Log Pow	3.42 (Test data)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,4-dichlorobenzene (106-46-7)</b>	
BCF fish 1	100 (BCF)
BCF fish 2	214 - 720 (BCF)
BCF other aquatic organisms 1	20 (BCF)
Log Pow	3.39 - 3.62 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ).
<b>1,3-dichlorobenzene (541-73-1)</b>	
BCF fish 1	420 - 740 (BCF)
BCF fish 2	57 - 370 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 8 weeks; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)
Log Pow	3.4 - 4.6
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,3,5-trimethylbenzene (108-67-8)</b>	
BCF fish 2	161 (BCF)
Log Pow	3.42 - 4.13 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>1,2-dichloroethane (107-06-2)</b>	
BCF fish 1	2 (BCF; 336 h)
Log Pow	1.45 - 1.48 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>acrylonitrile, inhibited (107-13-1)</b>	
BCF fish 1	48 (BCF; 672 h; Lepomis macrochirus)
Log Pow	-0.9 - 0.3 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>methanol (67-56-1)</b>	
BCF fish 1	< 10 (BCF; 72 h; Leuciscus idus)
Log Pow	-0.77 (Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>12.4. Mobility in soil</b>	
<b>Methylene Chloride (75-09-2)</b>	
Surface tension	0.028 N/m (20 °C)
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>Bromobenzene (108-86-1)</b>	
Surface tension	0.036 N/m
<b>hexachlorobuta-1,3-diene (87-68-3)</b>	
Ecology - soil	Soil contaminant.
<b>ethylbenzene (100-41-4)</b>	
Surface tension	0.029 N/m
Log Koc	log Koc,PCKOCWIN v1.66; 2.71; Calculated value; Koc; PCKOCWIN v1.66; 517.8; Calculated value
<b>diethyl ether (60-29-7)</b>	
Surface tension	0.017 N/m (20 °C)

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<b>m-xylene (108-38-3)</b>	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>naphthalene (91-20-3)</b>	
Surface tension	0.03 N/m (100 °C)
<b>chloroform (67-66-3)</b>	
Surface tension	0.0271 N/m (20 °C)
Log Koc	Koc,Other; 86.7-367; Experimental value; log Koc; Other; 1.94-2.56; Experimental value
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>chlorobenzene (108-90-7)</b>	
Surface tension	0.033 N/m (25 °C)
Log Koc	Koc,PCKOCWIN v1.66; 268; Calculated value; log Koc; PCKOCWIN v1.66; 2.42; Calculated value
<b>carbon tetrachloride (56-23-5)</b>	
Surface tension	0.027 N/m (20 °C)
Ecology - soil	Soil contaminant. May be harmful to plant growth, blooming and fruit formation.
<b>carbon disulfide (75-15-0)</b>	
Surface tension	0.032 N/m (20 °C)
<b>bromoform (75-25-2)</b>	
Surface tension	0.045 N/m (25 °C)
<b>iodomethane (74-88-4)</b>	
Surface tension	0.026 N/m (43 °C)
Log Koc	log Koc,OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method; 1.15 - 1.79; Experimental value; GLP
<b>tetrachloroethylene (127-18-4)</b>	
Surface tension	0.0313 N/m (20 °C)
Log Koc	Koc,141; Experimental value; log Koc; 2.15; Experimental value
<b>cyclohexane (110-82-7)</b>	
Surface tension	0.025 N/m (20 °C)
Log Koc	log Koc,Other; 2.89; QSAR; Koc; Other; 770; QSAR
<b>trichloroethylene (79-01-6)</b>	
Surface tension	0.03 N/m
<b>1,4-dichloro-2-butene, trans- (110-57-6)</b>	
Surface tension	0.024 N/m (20 °C)
Log Koc	log Koc,2.33; Experimental value; Other isomer
<b>isopropylbenzene (98-82-8)</b>	
Log Koc	Koc,884; Calculated value; log Koc; 2.946; Calculated value
<b>tetrahydrofuran (109-99-9)</b>	
Surface tension	0.028 N/m
Log Koc	log Koc,1.26 - 1.37; Experimental value
<b>benzene (71-43-2)</b>	
Surface tension	0.029 N/m (20 °C)
Log Koc	Koc,134.1; QSAR
<b>styrene (100-42-5)</b>	
Surface tension	0.032 N/m (19 °C)
Log Koc	Koc,352; Estimated value; log Koc; 2.55; Estimated value
<b>sec-butylbenzene (135-98-8)</b>	
Surface tension	0.029 N/m (20 °C)
<b>p-xylene (106-42-3)</b>	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>o-xylene (95-47-6)</b>	
Surface tension	0.003 N/m (25 °C)
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>butylbenzene (104-51-8)</b>	
Surface tension	0.029 N/m (20 °C)
<b>toluene (108-88-3)</b>	
Surface tension	0.03 N/m (20 °C)

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<b>1,2,3-trichloropropane (96-18-4)</b>	
Surface tension	0.038 N/m (20 °C)
<b>1,1,1,2-tetrachloroethane (630-20-6)</b>	
Surface tension	0.033 N/m (20 °C)
<b>1,1,1-trichloroethane (71-55-6)</b>	
Surface tension	0.025 N/m
Ecology - soil	Soil contaminant.
<b>1,1,2,2-tetrachloroethane (79-34-5)</b>	
Surface tension	0.035 N/m (20 °C)
<b>1,1,2-trichloroethane (79-00-5)</b>	
Surface tension	0.033 N/m (20 °C)
Log Koc	log Koc, SRC PCKOCWIN v2.0; 1.64 - 1.783; Estimated value
<b>1,1-dichloroethane (75-34-3)</b>	
Surface tension	0.025 N/m
<b>bromochloromethane (74-97-5)</b>	
Surface tension	0.033 N/m (20 °C)
Ecology - soil	Soil contaminant.
<b>1,2,4-trichlorobenzene (120-82-1)</b>	
Surface tension	0.039 N/m (20 °C)
<b>1,2,4-trimethylbenzene (95-63-6)</b>	
Surface tension	0.029 N/m
Log Koc	log Koc, 3.04; Calculated value
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>1,2-Dibromoethane (106-93-4)</b>	
Surface tension	0.038 N/m (20 °C)
Log Koc	log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC); 0.314; Experimental value; GLP
<b>4-Isopropyltoluene (99-87-6)</b>	
Surface tension	0.028 N/m (20 °C)
<b>1,2-dichlorobenzene (95-50-1)</b>	
Surface tension	0.037 N/m (20 °C)
<b>2-chlorotoluene (95-49-8)</b>	
Surface tension	0.033 N/m (20 °C)
<b>1,4-dichlorobenzene (106-46-7)</b>	
Surface tension	0.030 N/m (55 °C)
<b>1,3-dichlorobenzene (541-73-1)</b>	
Surface tension	0.036 N/m (20 °C)
Log Koc	log Koc, Other; 2.56; Experimental value
<b>1,3,5-trimethylbenzene (108-67-8)</b>	
Surface tension	0.028 N/m
Log Koc	log Koc, 2.87; Calculated value
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>1,2-dichloroethane (107-06-2)</b>	
Surface tension	0.032 N/m (20 °C)
Log Koc	log Koc, 1.52; Koc; 121
<b>acrylonitrile, inhibited (107-13-1)</b>	
Surface tension	0.027 N/m (20 °C)
<b>methanol (67-56-1)</b>	
Surface tension	0.023 N/m (20 °C)
Log Koc	Koc, PCKOCWIN v1.66; 1; Calculated value
<b>12.5. Results of PBT and vPvB assessment</b>	
<b>Component</b>	
trichloroethylene (79-01-6)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII This substance/mixture does not meet the vPvB criteria of REACH, annex XIII
1,2,3-trichloropropane (96-18-4)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII This substance/mixture does not meet the vPvB criteria of REACH, annex XIII

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Component	
1,2-dichloroethane (107-06-2)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII This substance/mixture does not meet the vPvB criteria of REACH, annex XIII

### 12.6. Other adverse effects

Additional information : Avoid release to the environment

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR) : 1992

UN-No.(IATA) : 1992

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, TOXIC, N.O.S.

Proper Shipping Name (IATA) : FLAMMABLE LIQUID, TOXIC, N.O.S.

Transport document description (ADR) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (FLAMMABLE LIQUID, TOXIC, N.O.S.), 3 (6.1), II, (D/E), ENVIRONMENTALLY HAZARDOUS

### 14.3. Packing group

Class (ADR) : 3

Classification code (ADR) : FT1

Class (IATA) : 3

Subsidiary risks (ADR) : 6.1

Hazard labels (ADR) : 3, 6.1



Hazard labels (IATA) : 3, 6.1



### 14.4. Packing group

Packing group (ADR) : II

Packing group (IATA) : II

### 14.5. Environmental hazards

Dangerous for the environment :



Other information : No supplementary information available.

### 14.6. Special precautions for user

#### 14.6.1. Overland transport

Hazard identification number (Kemler No.) : 336

Classification code (ADR) : FT1

Orange plates :



Special provision (ADR) : 274

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Transport category (ADR) : 2  
Tunnel restriction code (ADR) : D/E  
Limited quantities (ADR) : 11  
Excepted quantities (ADR) : E2

### 14.6.2. Transport by sea

No additional information available

### 14.6.3. Air transport

CAO packing instructions (IATA) : 364  
CAO max net quantity (IATA) : 60L  
PCA packing instructions (IATA) : 352  
PCA Limited quantities (IATA) : Y341  
PCA limited quantity max net quantity (IATA) : 1L  
PCA max net quantity (IATA) : 1L  
PCA Excepted quantities (IATA) : E2  
ERG code (IATA) : 3HP

### 14.6.4. Inland waterway transport

Carriage prohibited (ADN) : No

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains substance on the candidate list in concentration  $\geq 0.1\%$  or with a lower specific limit: Trichloroethylene (EC 201-167-4, CAS 79-01-6), 1,2,3-Trichloropropane (EC 202-486-1, CAS 96-18-4), 1,2-dichloroethane (EC 203-458-1, CAS 107-06-2)

Contains REACH Annex XIV substances:

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

PHV SDS EU

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