

### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 10/22/2020 Version: 1.0

#### **SECTION 1: Identification**

1.1. Identification

Product form : Mixture

Product name : Custom VOC Standard

Product code : AL0-131086

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Phenova

6390 Joyce Dr. Suite 100

Golden, CO 80403 - United States T 1-866-942-2978 - F 1-866-283-0269

info@phenova.com - 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: Hazard(s) identification

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

#### **GHS US classification**

Flammable liquids H225 Highly flammable liquid and vapor

Category 2

Acute toxicity (oral) H301 Toxic if swallowed

Category 3

Acute toxicity (dermal) H311 Toxic in contact with skin

Category 3

Carcinogenicity Category 2 H351 Suspected of causing cancer Specific target organ H370 Causes damage to organs

toxicity (single exposure) Category 1

Full text of H statements: see section 16

## 2.2. GHS Label elements, including precautionary statements

#### **GHS US labeling**

Hazard pictograms (GHS US)







Signal word (GHS US) : Danger

Hazard statements (GHS US) : H225 - Highly flammable liquid and vapor

H301+H311 - Toxic if swallowed or in contact with skin

H351 - Suspected of causing cancer H370 - Causes damage to organs

Precautionary statements (GHS US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smokina.

P233 - Keep container tightly closed.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray. P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 - If swallowed: Immediately call a poison center or doctor.

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse

skin with water/shower.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use media other than water to extinguish.

P403+P235 - Store in a well-ventilated place. Keep cool.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

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accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

#### 3.1 Substances

Not applicable

## 3.2. Mixtures

Name	Product identifier	Conc.
nethanol Component)	(CAS-No.) 67-56-1	82.4
acetone Component)	(CAS-No.) 67-64-1	2
etrahydrofuran Component)	(CAS-No.) 109-99-9	2
4-Methyl-2-Pentanone (Component)	(CAS-No.) 108-10-1	1
2-Butanone Component)	(CAS-No.) 78-93-3	1
oluene Component)	(CAS-No.) 108-88-3	0.2
ethylbenzene Component)	(CAS-No.) 100-41-4	0.2
nexachlorobuta-1,3-diene Component)	(CAS-No.) 87-68-3	0.2
naphthalene Component)	(CAS-No.) 91-20-3	0.2
sopropylbenzene Component)	(CAS-No.) 98-82-8	0.2
1,3-dichloropropene, trans- Component)	(CAS-No.) 10061-02-6	0.2
Methylene Chloride (Component)	(CAS-No.) 75-09-2	0.2
penzene Component)	(CAS-No.) 71-43-2	0.2
1,1,2,2-tetrachloroethane Component)	(CAS-No.) 79-34-5	0.2
1,1,1,2-tetrachloroethane Component)	(CAS-No.) 630-20-6	0.2
1,2,3-trichloropropane Component)	(CAS-No.) 96-18-4	0.2
styrene (Component)	(CAS-No.) 100-42-5	0.2
oromodichloromethane (Component)	(CAS-No.) 75-27-4	0.2
1,1,2-trichloroethane Component)	(CAS-No.) 79-00-5	0.2
etrachloroethylene Component)	(CAS-No.) 127-18-4	0.2
trichloroethylene Component)	(CAS-No.) 79-01-6	0.2
allyl chloride (Component)	(CAS-No.) 107-05-1	0.2
1,2-dibromo-3-chloropropane Component)	(CAS-No.) 96-12-8	0.2
1,4-dichlorobenzene Component)	(CAS-No.) 106-46-7	0.2
1,2-Dibromoethane Component)	(CAS-No.) 106-93-4	0.2
chloroform Component)	(CAS-No.) 67-66-3	0.2
cis-1,3-Dichloropropene Component)	(CAS-No.) 10061-01-5	0.2
1,2-dichloropropane Component)	(CAS-No.) 78-87-5	0.2
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Name	Product identifier	Conc.
1,2-dichloroethane (Component)	(CAS-No.) 107-06-2	0.2
carbon tetrachloride (Component)	(CAS-No.) 56-23-5	0.2
1,1-dichloroethene (Component)	(CAS-No.) 75-35-4	0.2

Full text of hazard classes and H-statements : see section 16

#### **SECTION 4: First-aid measures**

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4.1.	Descri	ption of firs	st aid me	asııres

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 persists.

: 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 (acute and delayed)

Potential Adverse human health effects and

: Toxic if swallowed. Toxic in contact with skin.

symptoms

: May cause cancer by inhalation.

Symptoms/effects after inhalation Symptoms/effects after skin contact

First-aid measures after ingestion

: Repeated exposure to this material can result in absorption through skin causing significant

health hazard. Toxic in contact with skin.

Symptoms/effects after ingestion

Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

hazard.

#### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## **SECTION 5: Fire-fighting measures**

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : Do not use a heavy water stream.

## 5.2. Specific hazards arising from the chemical

Fire hazard : Extremely flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

### 5.3. Special protective equipment and precautions for fire-fighters

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.

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.

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#### 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.

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.

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.

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 materials : Direct sunlight. Heat sources.

### SECTION 8: Exposure controls/personal protection

# 8.1. Control parameters Custom VOC Standard

Custom VOC Standard_		
ACGIH	Local name	Methanol
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	250 ppm
ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
benzene (71-43-2)		
ACGIH	Local name	Benzene
ACGIH	ACGIH TWA (ppm)	0.5 ppm
ACGIH	ACGIH STEL (ppm)	2.5 ppm
ACGIH	Remark (ACGIH)	Leukemia
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (ppm)	10 ppm
OSHA	OSHA PEL (Ceiling) (ppm)	25 ppm
OSHA	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	50 ppm 10 mins.
OSHA	Regulatory reference (US-OSHA)	OSHA
NIOSH	NIOSH REL (TWA) (ppm)	0.1 ppm
NIOSH	NIOSH REL (STEL) (ppm) 1 ppm	
toluene (108-88-3)		
ACGIH	Local name	Toluene
ACGIH	ACGIH TWA (ppm)	20 ppm (Toluene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	Visual impair; female repro;
ACGIH	CGIH Regulatory reference ACGIH 2018	
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toluene (108-88-3)		
OSHA	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	500 ppm 10 mins.
OSHA	Remark (OSHA)	(2) See Table Z-2.
OSHA	Regulatory reference (US-OSHA)	OSHA
ethylbenzene (100-4	1-4)	
ACGIH	Local name	Ethyl benzene
ACGIH	ACGIH TWA (ppm)	20 ppm (Ethyl benzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	URT irr; kidney dam (nephropathy)
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	435 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
methanol (67-56-1)		,
ACGIH	Local name	Methanol
ACGIH	ACGIH TWA (ppm)	200 ppm (Methanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (ppm)	250 ppm (Methanol; USA; Short time value; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
bromodichlorometh Not applicable	ane (75-27-4)	
chloroform (67-66-3		
ACGIH	Local name	Chloroform
ACGIH	ACGIH TWA (ppm)	10 ppm (Chloroform; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	Liver dam; embryo/fetal dam
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (Ceiling) (mg/m³)	240 mg/m³
OSHA	OSHA PEL (Ceiling) (ppm)	50 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
1,1-dichloroethene (	75-35-4)	
ACGIH	Local name	Vinylidene chloride
ACGIH	ACGIH TWA (ppm)	5 ppm
ACGIH	Remark (ACGIH)	Liver & kidney dam
ACGIH	Regulatory reference	ACGIH 2018
1,2-dichloroethane (	107-06-2)	
ACGIH	Local name	Ethylene dichloride
ACGIH	ACGIH TWA (ppm)	10 ppm
ACGIH	Remark (ACGIH)	Liver dam; nausea
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ACGIH	Regulatory reference	ACGIH 2018

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1,2-dichloroethane (107-06-2	2)	
OSHA	Remark (OSHA)	(2) See Table Z-2.
OSHA	Regulatory reference (US-OSHA)	OSHA
trichloroethylene (79-01-6)		
ACGIH	Local name	Trichloroethylene
ACGIH	ACGIH TWA (ppm)	10 ppm (Trichloroethylene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (ppm)	25 ppm (Trichloroethylene; USA; Short time value; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	CNS impair; cognitive decrements
ACGIH	Regulatory reference	ACGIH 2018
OSHA	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	300 ppm 5 mins. in any 2 hrs.
OSHA	Remark (OSHA)	(2) See Table Z-2.
OSHA	Regulatory reference (US-OSHA)	OSHA
carbon tetrachloride (56-23-	5)	
ACGIH	Local name	Carbon tetrachloride
ACGIH	ACGIH TWA (ppm)	5 ppm
ACGIH	ACGIH STEL (ppm)	10 ppm
ACGIH	Remark (ACGIH)	Liver dam
ACGIH	Regulatory reference	ACGIH 2018
OSHA	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	200 ppm 5 min. in any 4 hrs.
OSHA	Remark (OSHA)	(2) See Table Z-2.
OSHA	Regulatory reference (US-OSHA)	OSHA
tetrachloroethylene (127-18-	-4)	
ACGIH	Local name	Tetrachloroethylene
ACGIH	ACGIH TWA (ppm)	25 ppm (Tetrachloroethylene (Perchloroethylene); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (ppm)	100 ppm (Tetrachloroethylene (Perchloroethylene); USA; Short time value; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	CNS impair
ACGIH	Regulatory reference	ACGIH 2018
OSHA	Remark (OSHA)	(2) See Table Z-2.
OSHA	Regulatory reference (US-OSHA)	OSHA
Methylene Chloride (75-09-2	2)	
ACGIH	Local name	Dichloromethane
ACGIH	ACGIH TWA (ppm)	50 ppm
ACGIH	Remark (ACGIH)	COHb-emia; CNS impair
ACGIH	Regulatory reference	ACGIH 2018
OSHA	Remark (OSHA)	(2) See Table Z-2.
OSHA	Regulatory reference (US-OSHA)	OSHA
2-Butanone (78-93-3)		
ACGIH	Local name	Methyl ethyl ketone (MEK)
ACGIH	ACGIH TWA (ppm)	200 ppm (Methyl ethyl ketone (MEK); USA; Time- weighted average exposure limit 8 h; TLV - Adopted Value)

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2-Butanone (78-93-3)		
ACGIH	ACGIH STEL (ppm)	300 ppm (Methyl ethyl ketone (MEK); USA; Short time
ACCILI	Damark (ACCIII)	value; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	URT irr; CNS & PNS impair
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	590 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
1,2-dibromo-3-chloropropa	ne (96-12-8)	
Not applicable		
1,2-Dibromoethane (106-93		
OSHA	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	50 ppm 5 mins.
OSHA	Remark (OSHA)	(2) See Table Z-2.
OSHA	Regulatory reference (US-OSHA)	OSHA
1,4-dichlorobenzene (106-4	16-7)	
ACGIH	Local name	p-Dichlorobenzene
ACGIH	ACGIH TWA (ppm)	10 ppm
ACGIH	Remark (ACGIH)	Eye irr; kidney dam
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	450 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	75 ppm
OSHA	OSHA PEL (STEL) (mg/m³)	675 mg/m³
OSHA	OSHA PEL (STEL) (ppm)	110 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
1,2-dichloropropane (78-87	7-5)	
ACGIH	Local name	Propylene dichloride
ACGIH	ACGIH TWA (ppm)	10 ppm (Propylene dichloride; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	URT irr; body weight eff; DSEN; A4 (Not classifiable as a Human Carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories)
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	350 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	75 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
cis-1,3-Dichloropropene (1	0061-01-5)	
ACGIH	ACGIH TWA (ppm)	1 ppm
1,3-dichloropropene, trans	- (10061-02-6)	
ACGIH	ACGIH TWA (ppm)	1 ppm
hexachlorobuta-1,3-diene (	(87-68-3)	
ACGIH	Local name	Hexachlorobutadiene
ACGIH	ACGIH TWA (ppm)	0.02 ppm
ACGIH	Remark (ACGIH)	Kidney dam
ACGIH	Regulatory reference	ACGIH 2018
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Isopropylbenzene (9	8-82-8)		
ACGIH	Local name	Cumene	
ACGIH	ACGIH TWA (ppm)	50 ppm	
ACGIH	Remark (ACGIH)	Eye, skin, & URT irr; CNS impair	
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	OSHA PEL (TWA) (mg/m³)	245 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	50 ppm	
OSHA	Regulatory reference (US-OSHA)	OSHA	
4-Methyl-2-Pentanor	ne (108-10-1)		
ACGIH	Local name	Methyl isobutyl ketone	
ACGIH	ACGIH TWA (ppm)	20 ppm (Methyl isobutyl ketone; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)	
ACGIH	ACGIH STEL (ppm)	75 ppm (Methyl isobutyl ketone; USA; Short time value; TLV - Adopted Value)	
ACGIH	Remark (ACGIH)	URT irr; dizziness; headache	
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	OSHA PEL (TWA) (mg/m³)	410 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	100 ppm	
OSHA	Regulatory reference (US-OSHA)	OSHA	
naphthalene (91-20-	3)		
ACGIH	Local name	Naphthalene	
ACGIH	ACGIH TWA (ppm)	10 ppm (Naphthalene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)	
ACGIH	Remark (ACGIH)	Hematologic eff; URT & eye irr; Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure)	
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	OSHA PEL (TWA) (mg/m³)	50 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	10 ppm	
OSHA	Regulatory reference (US-OSHA)	OSHA	
styrene (100-42-5)			
ACGIH	Local name	Styrene, monomer	
ACGIH	ACGIH TWA (ppm)	20 ppm (Styrene, monomer; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)	
ACGIH	ACGIH STEL (ppm)	40 ppm (Styrene, monomer; USA; Short time value; TLV - Adopted Value)	
ACGIH	Remark (ACGIH)	CNS impair; URT irr; peripheral	
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	600 ppm 5 mins. in any 3 hrs.	
OSHA	Remark (OSHA)	(2) See Table Z-2.	
OSHA	Regulatory reference (US-OSHA)	OSHA	
<b>1,1,1,2-tetrachloroet</b> Not applicable	hane (630-20-6)		

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1,1,2,2-tetrachloroe	ethane (79-34-5)		
ACGIH	Local name	1,1,2,2-Tetrachloroethane	
ACGIH	ACGIH TWA (ppm)	1 ppm	
ACGIH	Remark (ACGIH)	Liver dam	
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	OSHA PEL (TWA) (mg/m³)	35 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	5 ppm	
OSHA	Regulatory reference (US-OSHA)	OSHA	
1,1,2-trichloroethar	ne (79-00-5)		
ACGIH	Local name	1,1,2-Trichloroethane	
ACGIH	ACGIH TWA (ppm)	10 ppm	
ACGIH	Remark (ACGIH)	CNS impair; liver dam	
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	OSHA PEL (TWA) (mg/m³)	45 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	10 ppm	
OSHA	Regulatory reference (US-OSHA)	OSHA	
1,2,3-trichloropropa	ane (96-18-4)		
ACGIH	Local name	1,2,3-Trichloropropane	
ACGIH	ACGIH TWA (ppm)	0.005 ppm	
		Human Carcinogen: Human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen; OR, the agent is carcinogenic in experimental animals at dose(s), by route(s) of exposure, at site(s), of histologic type(s), or by mechanism(s) considered relevant to worker exposure. The A2 is used primarily when there is limited evidence or carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans)	
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	OSHA PEL (TWA) (mg/m³)	300 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	50 ppm	
OSHA	Regulatory reference (US-OSHA)	OSHA	
acetone (67-64-1)			
ACGIH	Local name	Acetone	
ACGIH	ACGIH TWA (ppm)	250 ppm	
ACGIH	ACGIH STEL (ppm)	500 ppm	
ACGIH	Remark (ACGIH)	eye irr; CNS impair; BEI	
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	OSHA PEL (TWA) (mg/m³)	2400 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm	
OSHA	Regulatory reference (US-OSHA)	OSHA	
allyl chloride (107-	05-1)		
ACGIH	Local name	Allyl chloride	
ACGIH	ACGIH TWA (ppm)	1 ppm	
ACGIH	ACGIH STEL (ppm)	2 ppm	
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allyl chloride (107-05-1)			
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	OSHA PEL (TWA) (mg/m³)	3 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	1 ppm	
OSHA	Regulatory reference (US-OSHA)	OSHA	

tetrahydrofuran (109-99-9)			
ACGIH	Local name	Tetrahydrofuran	
ACGIH	ACGIH TWA (ppm)	50 ppm (Tetrahydrofuran; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)	
ACGIH	ACGIH STEL (ppm)	100 ppm (Tetrahydrofuran; USA; Short time value; TLV - Adopted Value)	
ACGIH	Remark (ACGIH)	URT irr; CNS impair; kidney dam	
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	OSHA PEL (TWA) (mg/m³)	590 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	200 ppm	
OSHA	Regulatory reference (US-OSHA)	OSHA	

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.

#### 8.3. Individual protection measures/Personal protective equipment

#### 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

#### Personal protective equipment symbol(s):







#### Other information:

Odor threshold

Melting point

Do not eat, drink or smoke during use.

## **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical propert	9.1.	Information	on basic physi	cal and chemic	al properties
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Physical state : Liquid

: Colorless: characteristic

: No data available

: No data available

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pH : No data available

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Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas) : Extremely flammable liquid and vapor.

Vapor pressure : No data available Relative vapor density at 20 °C : No data available Relative density : No data available : No data available Solubility : No data available Partition coefficient n-octanol/water (Log Pow) Auto-ignition temperature : No data available Decomposition temperature : No data available : No data available Viscosity, kinematic Viscosity, dynamic : No data available **Explosion limits** : No data available Explosive properties : No data available Oxidizing properties : 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

Not established.

## 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

No additional information available

## 10.6. Hazardous decomposition products

May release flammable gases.

### **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity : Not classified

Custom VOC Standard_	
ATE US (oral)	101.614 mg/kg body weight
ATE US (dermal)	304.841 mg/kg body weight
benzene (71-43-2)	
LD50 oral rat	> 2000 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral)
LC50 inhalation rat (mg/l)	43.767 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Female, Experimental value, Inhalation (vapours))
LC50 inhalation rat (ppm)	13700 ppm (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Female, Experimental value, Inhalation (vapours))
ATE US (vapors)	43.767 mg/l/4h
ATE US (dust, mist)	43.767 mg/l/4h
toluene (108-88-3)	
LD50 oral rat	> 2000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 5580 mg/kg bodyweight; Rat; Experimental value)

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toluene (108-88-3)	
LD50 dermal rabbit	12223 mg/kg (Rabbit; Literature study; Other; >5000 mg/kg bodyweight; Rabbit; Experimenta value)
LC50 inhalation rat (mg/l)	> 20 mg/l/4h (Rat; Literature study)
ATE US (dermal)	12223 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 US (oral)	3500 mg/kg body weight
ATE US (dermal)	15415 mg/kg body weight
ATE US (gases)	4000 ppmV/4h
ATE US (vapors)	17.8 mg/l/4h
ATE US (dust, mist)	17.8 mg/l/4h
methanol (67-56-1)	
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 US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h
bromodichloromethane (75-27-4)	
LD50 oral rat	916 mg/kg (Rat, Oral)
ATE US (oral)	916 mg/kg body weight
chloroform (67-66-3)	
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 US (oral)	695 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h
, , ,	0.5 mg// m
1,1-dichloroethene (75-35-4) LD50 oral rat	> 1000 mg/kg /Dat Mala / famala Evnerimental value Oral)
LC50 inhalation rat (mg/l)	> 1000 mg/kg (Rat, Male / female, Experimental value, Oral)  34.1 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value)
ATE US (gases)	Inhalation (vapours), 14 day(s)) 4500 ppmV/4h
ATE US (yases)	11 mg/l/4h
ATE US (vapors) ATE US (dust, mist)	1.5 mg/l/4h
	1.0 mg//#m
1,2-dichloroethane (107-06-2)	770 # (050D tot A + 0   17   17   7   11   1   7   17   17
LD50 oral rat	770 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral)
LD50 dermal rabbit	2800 mg/kg (Rabbit, Literature study, Dermal)
LC50 inhalation rat (mg/l)	7.758 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value Inhalation (vapours))
LC50 inhalation rat (ppm)	1886 ppm (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value Inhalation (vapours))
(11 /	
· · · /	770 mg/kg body weight
ATE US (oral)	770 mg/kg body weight 2800 mg/kg body weight
ATE US (oral) ATE US (dermal) ATE US (vapors)	

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trichloroethylene (79-01-6)	
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 US (oral)	4920 mg/kg body weight
ATE US (gases)	12000 ppmV/4h
ATE US (vapors)	66 mg/l/4h
ATE US (dust, mist)	66 mg/l/4h
,	oo mga ma
carbon tetrachloride (56-23-5) LD50 oral rat	2500 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, ≥ 14 day(s))
LD50 dermal rabbit	> 14900 mg/kg body weight (24 h, Rabbit, Male / female, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	46.26 mg/l (Equivalent or similar to OECD 403, 6 h, Rat, Male, Experimental value, Inhalation (vapours))
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h
tetrachloroethylene (127-18-4)	
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)
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 US (gases)	3786 ppmV/4h
ATE US (vapors)	27.58 mg/l/4h
ATE US (dust, mist)	27.58 mg/l/4h
Methylene Chloride (75-09-2)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)
1,2-dibromo-3-chloropropane (96-12-8)	
LD50 oral rat	170 mg/kg (Rat, Literature study, Oral)
ATE US (oral)	170 mg/kg body weight
1,2-Dibromoethane (106-93-4)	
LD50 oral rat	140 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	300 mg/kg (Rat, Literature study, Dermal)
LC50 inhalation rat (ppm)	> 200 ppm (Other, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
ATE US (oral)	140 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h
1,4-dichlorobenzene (106-46-7)	
LD50 dermal rat	> 6000 mg/kg (Rat, Dermal)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)	> 5 mg/l (4 h, Rat, Inhalation)
ATE US (oral)	500 mg/kg body weight
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1,2-dichloropropane (78-87-5)	
LD50 oral rat	1900 mg/kg (Rat; Experimental value; 2200 mg/kg bodyweight; Rat)
LD50 dermal rat	10404 mg/kg (Rat)
LD50 dermal rabbit	8750 mg/kg (Rabbit; Experimental value; 10100 mg/kg bodyweight; Rabbit)
LC50 inhalation rat (mg/l)	9.4 mg/l air (4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
LC50 inhalation rat (ppm)	2000 ppm/4h (Rat; Experimental value)
ATE US (oral)	1900 mg/kg body weight
ATE US (dermal)	8750 mg/kg body weight
ATE US (gases)	2000 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
cis-1,3-Dichloropropene (10061-01-5)	
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
1,3-dichloropropene, trans- (10061-02-6)	
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
hexachlorobuta-1,3-diene (87-68-3)	
LD50 oral rat	90 mg/kg (Rat, Oral)
LD50 dermal rabbit	1211 mg/kg (Rabbit, Dermal)
ATE US (oral)	90 mg/kg body weight
ATE US (dermal)	1211 mg/kg body weight
Isopropylbenzene (98-82-8)	
LD50 oral rat	> 2000 mg/kg (Other, Rat, Literature study, Oral)
LD50 dermal rabbit	10578 mg/kg (Other, Rabbit, Literature study, Dermal)
LC50 inhalation rat (mg/l)	40 mg/l (Other, 4 h, Rat, Literature study, Inhalation)
ATE US (dermal)	10578 mg/kg body weight
ATE US (vapors)	40 mg/l/4h
ATE US (dust, mist)	40 mg/l/4h
4-Methyl-2-Pentanone (108-10-1)	
LD50 oral rat	2080 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rat	≥ 2000 mg/kg body weight (Rat; Experimental value; OECD 401; Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	8.2- 16.4,Rat; Experimental value
LC50 inhalation rat (ppm)	2000 – 4000 ppm/4h (Rat; Experimental value)
ATE US (oral)	2080 mg/kg body weight
ATE US (gases)	2000 ppmV/4h
ATE US (gases) ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
naphthalene (91-20-3)	
LD50 oral rat	> 1100 mg/kg (Rat)
LD50 dermal rat	> 2500 mg/kg (Rat)
LD50 dermal rat	> 20000 mg/kg (Rabbit)
ATE US (oral)	500 mg/kg body weight
	Soo mynky body weight
styrene (100-42-5)	FOOD weather (Dat Literature study 2000)
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)

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styrene (100-42-5)	
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 US (oral)	5000 mg/kg body weight
ATE US (dermal)	2820 mg/kg body weight
ATE US (gases)	2770 ppmV/4h
ATE US (vapors)	12 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
	1.0 Hg//H
1,1,1,2-tetrachloroethane (630-20-6) LD50 oral rat	670 malka (Pat Literatura etudy Oral)
LD50 dermal rabbit	670 mg/kg (Rat, Literature study, Oral)  20000 mg/kg (Rabbit, Literature study, Dermal)
LC50 inhalation rat (mg/l)	14.4 mg/l (4 h, Rat, Converted value, Inhalation (vapours))
` ` ` ` ` `	
ATE US (darmal)	670 mg/kg body weight
ATE US (dermal)	20000 mg/kg body weight
ATE US (gases)  ATE US (vapors)	4500 ppmV/4h  14.4 mg/l/4h
( 1 /	
ATE US (dust, mist)	1.5 mg/l/4h
1,1,2,2-tetrachloroethane (79-34-5)	
LD50 oral rat	250 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	3990 mg/kg (Rabbit, Literature study, Dermal)
LC50 inhalation rat (mg/l)	8.6 mg/l (4 h, Rat, Literature study, Inhalation)
ATE US (oral)	250 mg/kg body weight
ATE US (dermal)	5 mg/kg body weight
ATE US (gases)	100 ppmV/4h
ATE US (vapors)	8.6 mg/l/4h
ATE US (dust, mist)	0.05 mg/l/4h
1,1,2-trichloroethane (79-00-5)	
LD50 oral rat	837 mg/kg body weight (Rat, Male, Experimental value, Oral)
LD50 dermal rabbit	5380 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rabbit, Male, Experimental
	value, Dermal)
LC50 inhalation rat (mg/l)	
	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value,
LC50 inhalation rat (mg/l)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))
LC50 inhalation rat (mg/l)  ATE US (oral)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)  ATE US (dermal)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)  ATE US (dermal)  ATE US (gases)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight  850 mg/kg body weight  850 ppmV/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)  ATE US (dermal)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight  850 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  acetone (67-64-1)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  acetone (67-64-1)  LD50 oral rat	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  1.5 mg/l/4h  1.5 mg/l/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (vapors)  ATE US (dust, mist)  acetone (67-64-1)  LD50 oral rat  LD50 dermal rabbit	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight  850 mg/kg body weight  11 mg/l/4h  1.5 mg/l/4h  1.5 mg/l/4h  1.5 mg/l/4h  1.5 mg/l/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (vapors)  ATE US (dust, mist)  acetone (67-64-1)  LD50 oral rat  LD50 dermal rabbit  LC50 inhalation rat (mg/l)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight  850 mg/kg body weight  11 mg/l/4h  1.5 mg/l/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (vapors)  ATE US (dust, mist)  acetone (67-64-1)  LD50 oral rat  LD50 dermal rabbit  LC50 inhalation rat (mg/l)  ATE US (oral)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  15 mg/l/4h  16 mg/l/4h  17 mg/l/4h  18 mg/l/4h  19 mg/l/4h  10 mg/l/4h  10 mg/l/4h  11 mg/l/4h  10 mg/l/4h  11 mg/l/4h  11 mg/l/4h  12 mg/l/4h  13 mg/l/4h  14 mg/l/4h  15 mg/l/4h
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (dermal)  ATE US (gases)  ATE US (qases)  ATE US (vapors)  ATE US (dust, mist)  acetone (67-64-1)  LD50 oral rat  LD50 dermal rabbit  LC50 inhalation rat (mg/l)  ATE US (dermal)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight  11 mg/l/4h  1.5 mg/l/4h  1.5 mg/l/4h  1.5 mg/l/4h  1.6 mg/l/4h  1.7 mg/l/4h  1.8 mg/l/4h  1.9 mg/l/4h  1.0 mg/kg (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral)  20000 mg/kg (Equivalent or similar to OECD 402, Rabbit, Male, Experimental value, Dermal)  76 mg/l (Other, 4 h, Rat, Female, Experimental value, Inhalation (vapours))  5800 mg/kg body weight  20000 mg/kg body weight
LC50 inhalation rat (mg/l)  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (dust, mist)  1,2,3-trichloropropane (96-18-4)  LD50 oral rat  LD50 dermal rabbit  ATE US (oral)  ATE US (dermal)  ATE US (gases)  ATE US (vapors)  ATE US (vapors)  ATE US (dust, mist)  acetone (67-64-1)  LD50 oral rat  LD50 dermal rabbit  LC50 inhalation rat (mg/l)  ATE US (oral)	value, Dermal)  9000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))  837 mg/kg body weight  1100 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  442 mg/kg (Rat, Oral)  850 mg/kg (Rabbit, Dermal)  442 mg/kg body weight  850 mg/kg body weight  4500 ppmV/4h  11 mg/l/4h  1.5 mg/l/4h  15 mg/l/4h  16 mg/l/4h  17 mg/l/4h  18 mg/l/4h  19 mg/l/4h  10 mg/l/4h  10 mg/l/4h  11 mg/l/4h  10 mg/l/4h  11 mg/l/4h  11 mg/l/4h  12 mg/l/4h  13 mg/l/4h  14 mg/l/4h  15 mg/l/4h

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275 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Female, Experimental value Oral, 14 day(s))
Oral, 14 day(s))
000 // 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1
398 mg/kg body weight (24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
5.6 mg/l (4 h, Rat, Experimental value, Inhalation (vapours), 28 day(s))
275 mg/kg body weight
398 mg/kg body weight
4500 ppmV/4h
5.6 mg/l/4h
1.5 mg/l/4h
1650 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 1650 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value)
> 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
54 mg/l/4h (Rat; Literature study)
18200 ppm/4h (Rat; Literature study)
1650 mg/kg body weight
18200 ppmV/4h
54 mg/l/4h
54 mg/l/4h
: Not classified
: Suspected of causing cancer.
. Suspected of Gausting Gartoot.
Known Human Carcinogens
3 - Not classifiable
2B - Possibly carcinogenic to humans
Reasonably anticipated to be Human Carcinogen
2B - Possibly carcinogenic to humans
Reasonably anticipated to be Human Carcinogen
Reasonably anticipated to be Human Carcinogen
1 - Carcinogenic to humans
Reasonably anticipated to be Human Carcinogen
Reasonably anticipated to be fidinal Carcinogen
Reasonably anticipated to be Human Carcinogen
2A - Probably carcinogenic to humans
Reasonably anticipated to be Human Carcinogen
2A - Probably carcinogenic to humans
Reasonably anticipated to be Human Carcinogen

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1,2-Dibromoethane (106-93-4)	
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
1,4-dichlorobenzene (106-46-7)	
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
1,2-dichloropropane (78-87-5)	
IARC group	1 - Carcinogenic to humans
Isopropylbenzene (98-82-8)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
4-Methyl-2-Pentanone (108-10-1)	
IARC group	2B - Possibly carcinogenic to humans
naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
styrene (100-42-5)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
1,1,1,2-tetrachloroethane (630-20-6)	
IARC group	2B - Possibly carcinogenic to humans
1,1,2,2-tetrachloroethane (79-34-5)	
IARC group	2B - Possibly carcinogenic to humans
1,2,3-trichloropropane (96-18-4)	
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
tetrahydrofuran (109-99-9)	
IARC group	2B - Possibly carcinogenic to humans
	: Not classified
	Based on available data, the classification criteria are not met
STOT-single exposure	: Causes damage to organs.
3	- J J

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and

symptoms

: Toxic if swallowed. Toxic in contact with skin.

Symptoms/effects after inhalation : May cause cancer by inhalation.

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant

health hazard. Toxic in contact with skin.

Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

hazard.

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SECTION 12: Ecological informa	ation
2.1. Toxicity	
Ecology - water	: Harmful to aquatic life with long lasting effects.
benzene (71-43-2)	
LC50 fish 1	5.3 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	10 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 (algae)	100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
ethylbenzene (100-41-4)	
LC50 fish 1	4.2 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Salmo gairdneri, Semi-static system, Fresh water, Experimental value)
EC50 Daphnia 1	1.8 – 2.4 mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
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)
methanol (67-56-1)	
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)
chloroform (67-66-3)	
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)
ErC50 (algae)	13.3 mg/l (Other, 72 h, Chlamydomonas reinhardtii, Static system, Fresh water, Experimental value)
1,1-dichloroethene (75-35-4)	
LC50 fish 1	107.9 mg/l (Other, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	37 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	410 mg/l (Other, 96 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
1,2-dichloroethane (107-06-2)	
LC50 fish 1	225 mg/l (96 h, Salmo gairdneri, Static system, Literature study)
EC50 Daphnia 1	155 – 220 mg/l (48 h, Daphnia magna, Static system, Literature study)
trichloroethylene (79-01-6)	
LC50 fish 1	40.7 mg/l (LC50; 96 h; Pimephales promelas)
EC50 Daphnia 2	20.8 mg/l (EC50; 48 h)
carbon tetrachloride (56-23-5)	
LC50 fish 1	24.3 mg/l (OECD 203: Fish, Acute Toxicity Test, 4 day(s), Danio rerio, Flow-through system, Fresh water, Experimental value)
EC50 other aquatic organisms 1	180 mg/l (Plankton, Literature)
ErC50 (algae)	20 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
tetrachloroethylene (127-18-4)	
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)
Methylene Chloride (75-09-2)	
LC50 fish 1	193 mg/l (96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	168.2 mg/l (48 h, Daphnia magna)

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2-Butanone (78-93-3)	
EC50 Daphnia 1	308 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna;
	Static system; Fresh water; Experimental value)
LC50 fish 2	2993 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Static system; Fresh water; Experimental value)
1,2-dibromo-3-chloropropane (96-12-8)	
LC50 fish 1	20 mg/l (48 h, Lepomis macrochirus)
1,2-Dibromoethane (106-93-4)	
LC50 fish 1	1.13 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	11.61 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
1,4-dichlorobenzene (106-46-7)	
LC50 fish 1	1.12 mg/l (96 h, Salmo gairdneri, Flow-through system)
EC50 Daphnia 1	0.7 mg/l (48 h, Daphnia magna, Measured concentration)
1,2-dichloropropane (78-87-5)	
LC50 fish 1	140 mg/l (EPA 660/3 - 75/009, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	2.7 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi- static system, Experimental value, GLP)
hexachlorobuta-1,3-diene (87-68-3)	
LC50 fish 1	0.25 mg/l (96 h, Salmo gairdneri)
EC50 other aquatic organisms 1	0.21 mg/l (96 h, Lymnaea sp.)
, ,	0.21 mg/r (90 m, Lyminaea sp.)
Isopropylbenzene (98-82-8)	4.0 may 1/FDA OTC 707.4400.00 h. Omaarkuraakura mulijaa. Flauu khrasurk asustana. Fransk uustana
LC50 fish 1	4.8 mg/l (EPA OTS 797.1400, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	2.14 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
4-Methyl-2-Pentanone (108-10-1)	
LC50 fish 1	600 mg/l (96 h, Salmo gairdneri, Fresh water, Literature study)
EC50 Daphnia 1	> 200 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
LC50 fish 2	> 179 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, GLP)
naphthalene (91-20-3)	
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)
styrene (100-42-5)	
LC50 fish 1	10 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	4.7 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Flowthrough system, Fresh water, Experimental value, GLP)
ErC50 (algae)	4.9 mg/l (EPA OTS 797.1050, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
1,1,1,2-tetrachloroethane (630-20-6)	
LC50 fish 1	16 – 24 mg/l (96 h, Lepomis macrochirus, Static system, Literature study)
EC50 Daphnia 1	17 – 30 mg/l (48 h, Daphnia magna, Literature study)
1,1,2,2-tetrachloroethane (79-34-5)	
LC50 fish 1	20.3 ppm (96 h, Pimephales promelas, Flow-through system, Literature study)
EC50 Daphnia 1	9.32 mg/l (48 h, Daphnia magna, Static system, Literature study)
1,1,2-trichloroethane (79-00-5)	
LC50 fish 1	40 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Nominal concentration)
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1,1,2-trichloroethane (79-00-5)	
ErC50 (algae)	200 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static
,	system, Fresh water, Experimental value, Nominal concentration)
1,2,3-trichloropropane (96-18-4)	
LC50 fish 1	75 mg/l (96 h, Lepomis macrochirus, Static system)
EC50 Daphnia 1	35.4 mg/l (48 h, Daphnia magna, Static system)
acetone (67-64-1)	
LC50 fish 1	5540 mg/l (EU Method C.1, 96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Nominal concentration)
allyl chloride (107-05-1)	
LC50 fish 1	0.32 mg/l (96 h, Pimephales promelas, Static system, Literature study, Nominal concentration)
tetrahydrofuran (109-99-9)	
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)
12.2. Persistence and degradability	
Custom VOC Standard_	
Persistence and degradability	May cause long-term adverse effects in the environment.
benzene (71-43-2)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	2.18 g O₂/g substance
Chemical oxygen demand (COD)	2.15 g O₂/g substance
ThOD	3.1 g O₂/g substance
BOD (% of ThOD)	0.7
toluene (108-88-3)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	2.15 g O₂/g substance
Chemical oxygen demand (COD)	2.52 g O₂/g substance
ThOD	3.13 g O₂/g substance
BOD (% of ThOD)	0.69
ethylbenzene (100-41-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.44 g O₂/g substance (20d.)
Chemical oxygen demand (COD)	2.1 g O₂/g substance
ThOD	3.17 g O₂/g substance
BOD (% of ThOD)	45.4 (20 days)
BOD (% of ThOD) methanol (67-56-1)	45.4 (20 days)
,	45.4 (20 days)  Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
methanol (67-56-1)	
methanol (67-56-1) Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
methanol (67-56-1) Persistence and degradability Biochemical oxygen demand (BOD)	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.  0.6 – 1.12 g O₂/g substance
methanol (67-56-1) Persistence and degradability Biochemical oxygen demand (BOD) Chemical oxygen demand (COD)	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.  0.6 – 1.12 g O <sub>2</sub> /g substance  1.42 g O <sub>2</sub> /g substance
methanol (67-56-1)  Persistence and degradability  Biochemical oxygen demand (BOD)  Chemical oxygen demand (COD)  ThOD	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.  0.6 – 1.12 g O <sub>2</sub> /g substance  1.42 g O <sub>2</sub> /g substance  1.5 g O <sub>2</sub> /g substance
methanol (67-56-1) Persistence and degradability Biochemical oxygen demand (BOD) Chemical oxygen demand (COD) ThOD BOD (% of ThOD)	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.  0.6 – 1.12 g O <sub>2</sub> /g substance  1.42 g O <sub>2</sub> /g substance  1.5 g O <sub>2</sub> /g substance
methanol (67-56-1) Persistence and degradability Biochemical oxygen demand (BOD) Chemical oxygen demand (COD) ThOD BOD (% of ThOD) bromodichloromethane (75-27-4)	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.  0.6 – 1.12 g O <sub>2</sub> /g substance  1.42 g O <sub>2</sub> /g substance  1.5 g O <sub>2</sub> /g substance  0.8 (Literature study)

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chloroform (67-66-3)	
ThOD	0.33 – 1.35 g O₂/g substance
BOD (% of ThOD)	0.015 – 0.06
1,1-dichloroethene (75-35-4)	
Persistence and degradability	Not readily biodegradable in water.
1,2-dichloroethane (107-06-2)	
Persistence and degradability	Not readily biodegradable in the soil. Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.0014 g O₂/g substance
Chemical oxygen demand (COD)	1.025 g O₂/g substance
ThOD	0.98 g O₂/g substance
BOD (% of ThOD)	0.001 (Calculated value)
trichloroethylene (79-01-6)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Biodegradable in the soil under anaerobic conditions.
carbon tetrachloride (56-23-5)	
Persistence and degradability	Readily biodegradable in water. Readily biodegradable in water in anaerobic conditions.
Biochemical oxygen demand (BOD)	0 g O₂/g substance
Chemical oxygen demand (COD)	0.001 g O₂/g substance
ThOD	0.21 g O₂/g substance
BOD (% of ThOD)	0
tetrachloroethylene (127-18-4)	
Persistence and degradability	Not readily biodegradable in water. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	0.06 g O₂/g substance
ThOD	0.39 g O₂/g substance
BOD (% of ThOD)	0.15
Methylene Chloride (75-09-2)	
Persistence and degradability	Biodegradable in the soil. Not readily biodegradable in water.
2-Butanone (78-93-3)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions.
Biochemical oxygen demand (BOD)	2.03 g O₂/g substance
Chemical oxygen demand (COD)	2.31 g O₂/g substance
ThOD	2.44 g O₂/g substance
BOD (% of ThOD)	> 0.5 (5 days; Literature study)
1,2-dibromo-3-chloropropane (96-12-8)	
Persistence and degradability	Non degradable in the soil. Not readily biodegradable in water.
1,2-Dibromoethane (106-93-4)	, ,
Persistence and degradability	Non degradable in the soil. Not readily biodegradable in water.
1,4-dichlorobenzene (106-46-7)	
Persistence and degradability	Non degradable in the soil. Readily biodegradable in water.
ThOD	1.52 g O₂/g substance
BOD (% of ThOD)	0.65 (Calculated value)
1,2-dichloropropane (78-87-5)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water. Non degradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.19 g O₂/g substance
Chemical oxygen demand (COD)	0.84 g O₂/g substance
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ThOD  1.13 g O <sub>2</sub> /g substance  2isi-1,3-Dichloropropene (10061-01-5)  2ersistence and degradability  Biodegradable in the soil. Not readily biodegradable in water.  1,3-dichloropropene, trans- (10061-02-6)  2ersistence and degradability  Biodegradable in the soil. Not readily biodegradable in water.  2ersistence and degradability  Biodegradability in soil: no data available. Readily biodegradable in water.  2ersistence and degradability  Biodegradable in the soil. Inherently biodegradable. Not readily biodegradable in water.  3ersistence and degradability  Biodegradable in the soil. Inherently biodegradable. Not readily biodegradable in water.  3ersistence and degradability  Biodegradable in the soil. Inherently biodegradable. Not readily biodegradable in water.  3ersistence and degradability autorial oxygen demand (COD)  2.42 g O <sub>2</sub> /g substance  3.2 g O <sub>2</sub> /g substance  3.2 g O <sub>2</sub> /g substance  3.0 (% of ThOD)  4.Methyl-2-Pentanone (108-10-1)  2ersistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  3ersistence and degradability  2.06 g O <sub>2</sub> /g substance  2.16 g O <sub>2</sub> /g substance
Persistence and degradability Biodegradable in the soil. Not readily biodegradable in water.  1,3-dichloropropene, trans- (10061-02-6) Persistence and degradability Biodegradable in the soil. Not readily biodegradable in water.  1,3-dichlorobuta-1,3-diene (87-68-3) Persistence and degradability Biodegradability in soil: no data available. Readily biodegradable in water.  1,28 g Oa/g substance Chemical oxygen demand (BOD) Chemical oxygen demand (COD)
As a control of the soil of th
Persistence and degradability  Biodegradable in the soil. Not readily biodegradable in water.  Persistence and degradability  Biodegradability in soil: no data available. Readily biodegradable in water.  Sopropylbenzene (98-82-8)  Persistence and degradability  Biodegradable in the soil. Inherently biodegradable. Not readily biodegradable in water.  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  3.2 g O <sub>2</sub> /g substance  3.0D (% of ThOD)  4-Methyl-2-Pentanone (108-10-1)  Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  Biochemical oxygen demand (COD)  2.16 g O <sub>2</sub> /g substance
Persistence and degradability  Biodegradability in soil: no data available. Readily biodegradable in water.  Sopropylbenzene (98-82-8)  Persistence and degradability  Biodegradable in the soil. Inherently biodegradable. Not readily biodegradable in water.  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  3.2 g O <sub>2</sub> /g substance  3.0 D (% of ThOD)  4-Methyl-2-Pentanone (108-10-1)  Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  Biochemical oxygen demand (BOD)  2.16 g O <sub>2</sub> /g substance  Chemical oxygen demand (COD)  2.16 g O <sub>2</sub> /g substance
Persistence and degradability  Biodegradability in soil: no data available. Readily biodegradable in water.  Sopropylbenzene (98-82-8)  Persistence and degradability  Biodegradable in the soil. Inherently biodegradable. Not readily biodegradable in water.  1.28 g O₂/g substance  Chemical oxygen demand (COD)  2.42 g O₂/g substance  ThOD  3.2 g O₂/g substance  3.2 g O₂/g substance  3.00 (% of ThOD)  4-Methyl-2-Pentanone (108-10-1)  Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  Biochemical oxygen demand (COD)  2.16 g O₂/g substance
Persistence and degradability Biodegradable in the soil. Inherently biodegradable. Not readily biodegradable in water.  Biochemical oxygen demand (BOD)  1.28 g O₂/g substance  Chemical oxygen demand (COD)  2.42 g O₂/g substance  ThOD  3.2 g O₂/g substance  3.0D (% of ThOD)  4-Methyl-2-Pentanone (108-10-1)  Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  Biochemical oxygen demand (BOD)  2.16 g O₂/g substance  Chemical oxygen demand (COD)  2.16 g O₂/g substance
Persistence and degradability Biodegradable in the soil. Inherently biodegradable. Not readily biodegradable in water.  1.28 g O <sub>2</sub> /g substance  2.42 g O <sub>2</sub> /g substance  ThOD 3.2 g O <sub>2</sub> /g substance  3.00 (% of ThOD)  4-Methyl-2-Pentanone (108-10-1)  Persistence and degradability Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  2.06 g O <sub>2</sub> /g substance  Chemical oxygen demand (COD) 2.16 g O <sub>2</sub> /g substance
Biochemical oxygen demand (BOD)  1.28 g O₂/g substance  2.42 g O₂/g substance  ThOD  3.2 g O₂/g substance  3.0 (% of ThOD)  4-Methyl-2-Pentanone (108-10-1)  Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  Biochemical oxygen demand (BOD)  2.16 g O₂/g substance  2.16 g O₂/g substance
Chemical oxygen demand (COD)  2.42 g O <sub>2</sub> /g substance  3.2 g O <sub>2</sub> /g substance  3.0 (% of ThOD)  4.Methyl-2-Pentanone (108-10-1)  Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  Biochemical oxygen demand (BOD)  2.16 g O <sub>2</sub> /g substance  2.16 g O <sub>2</sub> /g substance
ThOD  3.2 g O <sub>2</sub> /g substance  3.0 (% of ThOD)  4-Methyl-2-Pentanone (108-10-1)  Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  Biochemical oxygen demand (BOD)  2.06 g O <sub>2</sub> /g substance  Chemical oxygen demand (COD)  2.16 g O <sub>2</sub> /g substance
3.2 g O2/g substance  3.0 (% of ThOD)  4-Methyl-2-Pentanone (108-10-1)  Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  3.2 g O2/g substance  Chemical oxygen demand (108-10-1)  Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  2.06 g O2/g substance  Chemical oxygen demand (COD)  2.16 g O2/g substance
A-Methyl-2-Pentanone (108-10-1)  Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  Biochemical oxygen demand (BOD)  2.06 g O <sub>2</sub> /g substance  Chemical oxygen demand (COD)  2.16 g O <sub>2</sub> /g substance
Persistence and degradability  Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.  2.06 g O <sub>2</sub> /g substance  Chemical oxygen demand (COD)  2.16 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)  2.16 g O₂/g substance
2.10 g O2g substance
ThOD 2.72 g O₂/g substance
BOD (% of ThOD) 0.76
naphthalene (91-20-3)
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 O₂/g substance
Chemical oxygen demand (COD) 0.22 g O₂/g substance
ΓhOD 2.99 g O₂/g substance
styrene (100-42-5)
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) 2.8 g O₂/g substance
ThOD 3.07 g O₂/g substance
BOD (% of ThOD) 0.42
1,1,1,2-tetrachloroethane (630-20-6)
Persistence and degradability Readily biodegradable in water.
1,1,2,2-tetrachloroethane (79-34-5)  Persistence and degradability  Non degradable in the soil. Not readily biodegradable in water.
1,1,2-trichloroethane (79-00-5)
Persistence and degradability  Non degradable in the soil. Not readily biodegradable in water.
1,2,3-trichloropropane (96-18-4)
Persistence and degradability  Non degradable in the soil. Not readily biodegradable in water.
acetone (67-64-1)
Persistence and degradability Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD) 1.43 g O₂/g substance
Chemical oxygen demand (COD) 1.92 g O₂/g substance
ThOD 2.2 g O₂/g substance

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BOD (% of ThOD)

allyl chloride (107-05-1)

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allyl chioride (107-03-1)				
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.			
Biochemical oxygen demand (BOD)	0.23 g O₂/g substance			
Chemical oxygen demand (COD)	0.86 g O₂/g substance			
ThOD	1.7 g O <sub>2</sub> /g substance			
BOD (% of ThOD)	0.14 (5 day(s), Calculated value)			
tetrahydrofuran (109-99-9)				
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.			
Chemical oxygen demand (COD)	1.855 g O₂/g substance			
ThOD	2.44 g O₂/g substance			
	2.119 029 00000000			
12.3. Bioaccumulative potential				
Custom VOC Standard_	Not actablished			
Bioaccumulative potential	Not established.			
benzene (71-43-2)				
BCF fish 1	< 10 (OECD 305: Bioconcentration: Flow-Through Fish Test, 3 day(s), Leuciscus idus, Flow-through system, Fresh water, Experimental value)			
Partition coefficient n-octanol/water (Log Pow)	2.13 (Experimental value, 25 °C)			
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).			
toluene (108-88-3)				
BCF fish 2	90 (BCF; 72 h; Leuciscus idus; Static system; Fresh water)			
Partition coefficient n-octanol/water (Log Pow)	2.73 (Experimental value; Other; 20 °C)			
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).			
ethylbenzene (100-41-4)				
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)			
Partition coefficient n-octanol/water (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).			
methanol (67-56-1)				
BCF fish 1	< 10 (BCF; 72 h; Leuciscus idus)			
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Experimental value; Other)			
Bioaccumulative potential	6.77 (Experimental value, Other)			
	Low potential for bioaccumulation (BCF < 500).			
bromodichloromethane (75-27-4)				
bromodichloromethane (75-27-4) Partition coefficient n-octanol/water (Log Pow)				
	Low potential for bioaccumulation (BCF < 500).			
Partition coefficient n-octanol/water (Log Pow)	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24			
Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24 Low potential for bioaccumulation (Log Kow < 4).  4.1 – 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio,			
Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential chloroform (67-66-3)	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24  Low potential for bioaccumulation (Log Kow < 4).  4.1 – 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)  1.4 – 4.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus			
Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  chloroform (67-66-3)  BCF fish 1	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24  Low potential for bioaccumulation (Log Kow < 4).  4.1 – 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)			
Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  chloroform (67-66-3)  BCF fish 1  BCF fish 2	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24  Low potential for bioaccumulation (Log Kow < 4).  4.1 – 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)  1.4 – 4.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)			
Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  chloroform (67-66-3)  BCF fish 1  BCF fish 2  Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24  Low potential for bioaccumulation (Log Kow < 4).  4.1 – 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)  1.4 – 4.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)  1.97 (Experimental value; 20 °C)			
Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  chloroform (67-66-3)  BCF fish 1  BCF fish 2  Partition coefficient n-octanol/water (Log Pow)	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24  Low potential for bioaccumulation (Log Kow < 4).  4.1 – 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)  1.4 – 4.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)  1.97 (Experimental value; 20 °C)  Low potential for bioaccumulation (BCF < 500).			
Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  chloroform (67-66-3) BCF fish 1  BCF fish 2  Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  1,1-dichloroethene (75-35-4)	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24  Low potential for bioaccumulation (Log Kow < 4).  4.1 – 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)  1.4 – 4.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)  1.97 (Experimental value; 20 °C)			
Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  chloroform (67-66-3) BCF fish 1  BCF fish 2  Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  1,1-dichloroethene (75-35-4) BCF fish 1	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24  Low potential for bioaccumulation (Log Kow < 4).  4.1 – 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)  1.4 – 4.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)  1.97 (Experimental value; 20 °C)  Low potential for bioaccumulation (BCF < 500).			
Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  chloroform (67-66-3) BCF fish 1  BCF fish 2  Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  1,1-dichloroethene (75-35-4) BCF fish 1  Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24  Low potential for bioaccumulation (Log Kow < 4).  4.1 – 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)  1.4 – 4.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)  1.97 (Experimental value; 20 °C)  Low potential for bioaccumulation (BCF < 500).  2.5 – 13 (6 week(s), Cyprinus carpio, Experimental value)  2.13 (Weight of evidence approach, 25 °C)			
Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  chloroform (67-66-3) BCF fish 1  BCF fish 2  Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential  1,1-dichloroethene (75-35-4) BCF fish 1  Partition coefficient n-octanol/water (Log Pow)	Low potential for bioaccumulation (BCF < 500).  1.88 – 2.24  Low potential for bioaccumulation (Log Kow < 4).  4.1 – 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)  1.4 – 4.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)  1.97 (Experimental value; 20 °C)  Low potential for bioaccumulation (BCF < 500).  2.5 – 13 (6 week(s), Cyprinus carpio, Experimental value)  2.13 (Weight of evidence approach, 25 °C)			

0.872 (20 day(s), Literature study)

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1,2-dichloroethane (107-06-2)			
Partition coefficient n-octanol/water (Log Pow)	1.45 – 1.48 (Experimental value)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
trichloroethylene (79-01-6)			
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)		
Partition coefficient n-octanol/water (Log Pow)	2.29 – 2.42 (Experimental value)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
carbon tetrachloride (56-23-5)			
BCF fish 1	30 (Equivalent or similar to OECD 305, 21 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Fresh weight)		
Partition coefficient n-octanol/water (Log Pow)	2.75 – 2.83 (Experimental value)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
tetrachloroethylene (127-18-4)			
BCF fish 2	25.8 – 77.1 (BCF; 8 weeks)		
Partition coefficient n-octanol/water (Log Pow)	3.4 (Experimental value; 2.53; Experimental value; Equivalent or similar to OECD 107; 23 °C)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
Methylene Chloride (75-09-2)			
BCF fish 1	2 – 40 (OECD 305: Bioconcentration: Flow-Through Fish Test, 6 week(s), Cyprinus carpio, Semi-static system, Fresh water, Experimental value, GLP)		
Partition coefficient n-octanol/water (Log Pow)	1.25 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
2-Butanone (78-93-3)			
Partition coefficient n-octanol/water (Log Pow)	0.3 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 40 °C)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
1,2-dibromo-3-chloropropane (96-12-8)			
BCF fish 1	3.6 – 19 (Cyprinus carpio, Test duration: 6 weeks)		
Partition coefficient n-octanol/water (Log Pow)	2.43 – 2.96		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
1,2-Dibromoethane (106-93-4)			
BCF fish 1	1.6 – 14.9 (6 week(s), Cyprinus carpio, Literature study)		
Partition coefficient n-octanol/water (Log Pow)	1.93 (Experimental value, Equivalent or similar to OECD 107)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
1,4-dichlorobenzene (106-46-7)			
BCF fish 1	214 – 720 (Salmo gairdneri, Chronic)		
Partition coefficient n-octanol/water (Log Pow)	3.39 – 3.62 (Experimental value)		
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).		
1,2-dichloropropane (78-87-5)			
BCF fish 1	0.5 – 7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)		
Partition coefficient n-octanol/water (Log Pow)	1.99 – 2.28 (Experimental value)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
cis-1,3-Dichloropropene (10061-01-5)			
Partition coefficient n-octanol/water (Log Pow)	2.06		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
1,3-dichloropropene, trans- (10061-02-6)			
Partition coefficient n-octanol/water (Log Pow)	2		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
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hexachlorobuta-1,3-diene (87-68-3) BCF fish 1	17000 (Salmo gairdneri)		
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hexachlorobuta-1,3-diene (87-68-3)					
BCF fish 2	7000 (Pleuronectes platessa, Flow-through system)				
BCF other aquatic organisms 1	45.36 (Procambarus sp., Flow-through system)				
BCF other aquatic organisms 2	3000 (Mytilus edulis, Flow-through system)				
Partition coefficient n-octanol/water (Log Pow)	3.74 – 4.9  High potential for biggerymulation (RCE > 5000)				
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).				
Isopropylbenzene (98-82-8)					
BCF fish 1	35.5 (Carassius auratus)				
BCF other aquatic organisms 1	94.69 (BCFBAF v3.00, Calculated value)				
Partition coefficient n-octanol/water (Log Pow)	3.66 (Experimental value)				
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).				
4-Methyl-2-Pentanone (108-10-1)					
BCF fish 1	2 – 5 (BCF)				
Partition coefficient n-octanol/water (Log Pow)	1.9 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method)				
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).				
naphthalene (91-20-3)					
BCF fish 1	23 – 168 (BCF; 8 weeks; Cyprinus carpio)				
Partition coefficient n-octanol/water (Log Pow)	3.3 (Experimental value)				
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).				
styrene (100-42-5)					
BCF fish 1	35.5 (BCF)				
Partition coefficient n-octanol/water (Log Pow)	2.96 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask				
r artition coefficient n-octanol/water (Log r ow)	Method; 25 °C)				
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).				
1,1,1,2-tetrachloroethane (630-20-6)					
Partition coefficient n-octanol/water (Log Pow)	2.93 (Estimated value)				
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).				
·	200 poorniario processimalarion (209 non 1)				
1,1,2,2-tetrachloroethane (79-34-5) BCF fish 1	4.1 12.2 (Cyprinus carrie Literature etudy Chronic)				
Partition coefficient n-octanol/water (Log Pow)	4.1 – 13.2 (Cyprinus carpio, Literature study, Chronic)  2.39 (Experimental value)				
, ,					
Bioaccumulative potential Low potential for bioaccumulation (BCF < 500).					
1,1,2-trichloroethane (79-00-5)					
BCF fish 1	0.7 – 6.7 (OECD 305: Bioconcentration: Flow-Through Fish Test, 6 week(s), Cyprinus carpio, Flow-through system, Experimental value, Fresh weight)				
Partition coefficient n-octanol/water (Log Pow)	1.89 (Experimental value)				
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).				
1,2,3-trichloropropane (96-18-4)					
BCF fish 1	5.3 – 13 (Cyprinus carpio, Chronic)				
Partition coefficient n-octanol/water (Log Pow)	2.27 (Experimental value)				
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).				
acetone (67-64-1)					
BCF fish 1	0.69 (Pisces)				
BCF other aquatic organisms 1	3 (BCFWIN, Calculated value)				
Partition coefficient n-octanol/water (Log Pow)	-0.24 (Test data)				
Bioaccumulative potential	Not bioaccumulative.				
'					
allyl chloride (107-05-1) BCF fish 1	< 5.6 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio,				
Doubling coefficient a coton-librator (Los Doub)	Flow-through system, Fresh water, Experimental value, Fresh weight)				
Partition coefficient n-octanol/water (Log Pow)	2.1 (Experimental value, Equivalent or similar to OECD 117, 25 °C)				
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).				
tetrahydrofuran (109-99-9)					
Partition coefficient n-octanol/water (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).				

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12.4. Mobility in soil				
·				
benzene (71-43-2)				
Surface tension	0.029 N/m (20 °C)			
Partition coefficient n-octanol/water (Log Koc)	2.13 (log Koc, Calculated value)			
Ecology - soil	Low potential for adsorption in soil.			
toluene (108-88-3)				
Surface tension	0.03 N/m (20 °C)			
ethylbenzene (100-41-4)				
Surface tension	0.029 N/m			
Partition coefficient n-octanol/water (Log Koc)	log Koc,PCKOCWIN v1.66; 2.71; Calculated value; Koc; PCKOCWIN v1.66; 517.8; Calculated value			
Ecology - soil	Low potential for adsorption in soil. Toxic to soil organisms.			
methanol (67-56-1)				
Surface tension	0.023 N/m (20 °C)			
Partition coefficient n-octanol/water (Log Koc)	Koc,PCKOCWIN v1.66; 1; Calculated value			
chloroform (67-66-3)				
Surface tension	0.0271 N/m (20 °C)			
Partition coefficient n-octanol/water (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.			
1,1-dichloroethene (75-35-4)				
Partition coefficient n-octanol/water (Log Koc)	1.503 – 1.848 (log Koc, SRC PCKOCWIN v2.0, QSAR)			
Ecology - soil	Highly mobile in soil.			
1,2-dichloroethane (107-06-2)				
Surface tension	0.032 N/m (20 °C)			
Partition coefficient n-octanol/water (Log Koc)	1.52 (log Koc)			
Ecology - soil	Highly mobile in soil.			
trichloroethylene (79-01-6)	The state of the s			
Surface tension	0.03 N/m			
	0.00 (V/III			
carbon tetrachloride (56-23-5)	0.027 N/m (20.°C)			
Surface tension  Partition coefficient n-octanol/water (Log Koc)	0.027 N/m (20 °C)  1.69 (log Koc, EPA OTS 796.2750: Sediment and Soil Adsorption Isotherm, Experimental			
	value)			
Ecology - soil	Highly mobile in soil. May be harmful to plant growth, blooming and fruit formation. Soil contaminant.			
tetrachloroethylene (127-18-4)				
Surface tension	0.0313 N/m (20 °C)			
Partition coefficient n-octanol/water (Log Koc)	Koc,141; Experimental value; log Koc; 2.15; Experimental value			
Methylene Chloride (75-09-2)				
Surface tension	0.028 N/m (20 °C)			
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.			
2-Butanone (78-93-3)				
Surface tension	0.024 N/m (20 °C)			
Partition coefficient n-octanol/water (Log Koc)	Koc,34; Calculated value			
Ecology - soil	Slightly harmful to plants.			
1,2-dibromo-3-chloropropane (96-12-8)				
Ecology - soil	No (test)data on mobility of the substance available.			
1,2-Dibromoethane (106-93-4)				
Surface tension	0.038 N/m (20 °C)			
Partition coefficient n-octanol/water (Log Koc)	0.314 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)			
Ecology - soil	Highly mobile in soil.			
J)				

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1,4-dichlorobenzene (106-46-7)			
Surface tension	0.03 N/m (55 °C)		
Ecology - soil	Adsorbs into the soil.		
1,2-dichloropropane (78-87-5)			
Surface tension	0.029 N/m (20 °C)		
Partition coefficient n-octanol/water (Log Koc)	log Koc,Other; 1.72; Estimated value		
Ecology - soil	Highly mobile in soil.		
hexachlorobuta-1,3-diene (87-68-3)			
Ecology - soil	Soil contaminant.		
Isopropylbenzene (98-82-8)			
Partition coefficient n-octanol/water (Log Koc)	2.946 (log Koc, Calculated value)		
Ecology - soil	Low potential for adsorption in soil.		
4-Methyl-2-Pentanone (108-10-1)			
Surface tension	0.024 N/m (20 °C)		
Partition coefficient n-octanol/water (Log Koc)	Koc,101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value		
Ecology - soil	Low potential for adsorption in soil.		
naphthalene (91-20-3)			
Surface tension	0.03 N/m (100 °C)		
styrene (100-42-5)			
Surface tension	0.032 N/m (19 °C)		
Partition coefficient n-octanol/water (Log Koc)	Koc,352; Estimated value; log Koc; 2.55; Estimated value		
Ecology - soil	Low potential for adsorption in soil.		
1,1,1,2-tetrachloroethane (630-20-6)			
Surface tension	0.033 N/m (20 °C)		
Ecology - soil	No (test)data on mobility of the substance available.		
1,1,2,2-tetrachloroethane (79-34-5)			
Surface tension	0.035 N/m (20 °C)		
Ecology - soil	No (test)data on mobility of the substance available.		
1,1,2-trichloroethane (79-00-5)			
Partition coefficient n-octanol/water (Log Koc)	1.64 – 1.783 (log Koc, SRC PCKOCWIN v2.0, Estimated value)		
Ecology - soil	Highly mobile in soil.		
1,2,3-trichloropropane (96-18-4)			
Surface tension	0.038 N/m (20 °C)		
acetone (67-64-1)			
Surface tension	0.0237 N/m		
Ecology - soil	No (test)data on mobility of the substance available.		
allyl chloride (107-05-1)			
Partition coefficient n-octanol/water (Log Koc)	1.67 (log Koc, SRC PCKOCWIN v2.0, Calculated value)		
Ecology - soil	Highly mobile in soil.		
tetrahydrofuran (109-99-9)			
Surface tension	0.028 N/m		
Partition coefficient n-octanol/water (Log Koc)	log Koc,1.26 - 1.37; Experimental value		
Ecology - soil	Highly mobile in soil.		
12.5 Other adverse effects			

## 12.5. Other adverse effects

Custom VOC Standard_			
benzene (71-43-2)			

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toluene (108-88-3)
ethylbenzene (100-41-4)
methanol (67-56-1)
bromodichloromethane (75-27-4)
chloroform (67-66-3)
1,1-dichloroethene (75-35-4)
1,2-dichloroethane (107-06-2)
trichloroethylene (79-01-6)
carbon tetrachloride (56-23-5)
tetrachloroethylene (127-18-4)
Methylene Chloride (75-09-2)
2-Butanone (78-93-3)
1,2-dibromo-3-chloropropane (96-12-8)
1,2-Dibromoethane (106-93-4)
1,4-dichlorobenzene (106-46-7)
1,2-dichloropropane (78-87-5)
cis-1,3-Dichloropropene (10061-01-5)
1,3-dichloropropene, trans- (10061-02-6)
hexachlorobuta-1,3-diene (87-68-3)
Isopropylbenzene (98-82-8)
4-Methyl-2-Pentanone (108-10-1)
naphthalene (91-20-3)
styrene (100-42-5)
1,1,1,2-tetrachloroethane (630-20-6)
1,1,2,2-tetrachloroethane (79-34-5)
1

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1,1,2-trichloroethane (79-00-5)			
1,2,3-trichloropropane (96-18-4)			
acetone (67-64-1)			
allyl chloride (107-05-1)			
tetrahydrofuran (109-99-9)			

Other information : Avoid release to the environment.

### **SECTION** 13: Disposal considerations

13.1. Disposal methods

Product/Packaging 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.

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

#### **SECTION 14: Transport information**

#### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1992 Flammable liquids, toxic, n.o.s. (methanol; methyl isobutyl ketone), 3 (6.1), II

UN-No.(DOT) : UN1992

Proper Shipping Name (DOT) : Flammable liquids, toxic, n.o.s.

methanol; methyl isobutyl ketone

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : II - Medium Danger

Subsidiary risk (DOT) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132

Hazard labels (DOT) : 3 - Flammable liquid

6.1 - Poison





DOT Packaging Non Bulk (49 CFR 173.xxx)
DOT Packaging Bulk (49 CFR 173.xxx)
DOT Special Provisions (49 CFR 172.102)

: 202 : 243

: IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

TP13 - Self-contained breathing apparatus must be provided when this hazardous material is transported by sea.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150 DOT Quantity Limitations Passenger aircraft/rail : 1 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

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DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Emergency Response Guide (ERG) Number : 13

Other information : No supplementary information available.

#### **Transportation of Dangerous Goods**

Not applicable

#### Transport by sea

Transport document description (IMDG) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (methanol; methyl isobutyl ketone), 3 (6.1), II

UN-No. (IMDG) : 1992

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

Class (IMDG) : 3 - Flammable liquids

Packing group (IMDG) : II - substances presenting medium danger

Subsidiary risks (IMDG) : 6.1 - Toxic substances

Limited quantities (IMDG) : 1 L

#### Air transport

Transport document description (IATA) : UN 1992 Flammable liquid, toxic, n.o.s. (methanol; methyl isobutyl ketone), 3 (6.1), II

UN-No. (IATA) : 1992

Proper Shipping Name (IATA) : Flammable liquid, toxic, n.o.s.

Class (IATA) : 3 - Flammable Liquids

Packing group (IATA) : II - Medium Danger

Subsidiary hazards (IATA) : 6.1 - Toxic substances

## SECTION 15: Regulatory information

#### 15.1. US Federal regulations

benzene (71-43-2)			
Listed on the United States TSCA (Toxic Substa Subject to reporting requirements of United State			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	10 lb		
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard		
toluene (108-88-3)			
Listed on the United States TSCA (Toxic Substa Subject to reporting requirements of United State			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	1000 lb		
ethylbenzene (100-41-4)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	1000 lb		
methanol (67-56-1)			
Listed on the United States TSCA (Toxic Substa Subject to reporting requirements of United State			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ 5000 lb			

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according to Federal Register / Vol. 77, No. 58 / Monday, N	arch 26, 2012 / Rules and Regulations			
bromodichloromethane (75-27-4)	bromodichloromethane (75-27-4)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313				
CERCLA RQ	5000 lb			
chloroform (67-66-3)				
Listed on the United States TSCA (Toxic Substatements of United States)				
Listed on EPA Hazardous Air Pollutant (HAPS)				
CERCLA RQ	10 lb			
RQ (Reportable quantity, section 304 of EPA's List of Lists)	10 lb			
SARA Section 302 Threshold Planning Quantity (TPQ)	10000 lb			
1,1-dichloroethene (75-35-4)				
Listed on the United States TSCA (Toxic Substan Subject to reporting requirements of United States				
Listed on EPA Hazardous Air Pollutant (HAPS)				
CERCLA RQ	100 lb			
1,2-dichloroethane (107-06-2)				
Listed on the United States TSCA (Toxic Substan	nces Control Act) inventory			
Subject to reporting requirements of United State Listed on EPA Hazardous Air Pollutant (HAPS)				
CERCLA RQ	100 lb			
	100 10			
trichloroethylene (79-01-6)	0 1 14 1)			
Listed on the United States TSCA (Toxic Substant Subject to reporting requirements of United States				
Listed on EPA Hazardous Air Pollutant (HAPS)	D. D. T. C.			
EPA TSCA Regulatory Flag CERCLA RQ	R - R - indicates a substance that is the subject of a TSCA section 6 risk management rule.			
	carbon tetrachloride (56-23-5)			
Listed on the United States TSCA (Toxic Substant Subject to reporting requirements of United States				
Listed on EPA Hazardous Air Pollutant (HAPS)	L			
CERCLA RQ	10 lb			
tetrachloroethylene (127-18-4)				
Listed on the United States TSCA (Toxic Substate Subject to reporting requirements of United States				
Listed on EPA Hazardous Air Pollutant (HAPS)				
CERCLA RQ	100 lb			
Methylene Chloride (75-09-2)				
Listed on the United States TSCA (Toxic Substan Subject to reporting requirements of United State				
Listed on EPA Hazardous Air Pollutant (HAPS)				
EPA TSCA Regulatory Flag	R - R - indicates a substance that is the subject of a TSCA section 6 risk management rule.			
CERCLA RQ	1000 lb			
2-Butanone (78-93-3)				
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313				
Listed on EPA Hazardous Air Pollutant (HAPS)				
CERCLA RQ	5000 lb			
1,2-dibromo-3-chloropropane (96-12-8)				
Listed on the United States TSCA (Toxic Substan Subject to reporting requirements of United State				
Listed on EPA Hazardous Air Pollutant (HAPS)				
CERCLA RQ	1 lb			

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1,2-Dibromoethane (106-93-4)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			
Subject to reporting requirements of United States SARA Section 313			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ 1 lb			
1,4-dichlorobenzene (106-46-7)			
Listed on the United States TSCA (Toxic Substar Subject to reporting requirements of United State			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	100 lb		
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard		
1,2-dichloropropane (78-87-5)			
Listed on the United States TSCA (Toxic Substan Subject to reporting requirements of United State			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	1000 lb		
cis-1,3-Dichloropropene (10061-01-5)			
Not listed on the United States TSCA (Toxic Subs	stances Control Act) inventory		
1,3-dichloropropene, trans- (10061-02-6)			
Listed on the United States TSCA (Toxic Substan	nces Control Act) inventory		
Subject to reporting requirements of United State			
EPA TSCA Regulatory Flag	PMN - PMN - indicates a commenced PMN substance.		
hexachlorobuta-1,3-diene (87-68-3)			
Listed on the United States TSCA (Toxic Substan Subject to reporting requirements of United State			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	1 lb		
Isopropylbenzene (98-82-8)			
Listed on the United States TSCA (Toxic Substar Subject to reporting requirements of United State			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	5000 lb		
4-Methyl-2-Pentanone (108-10-1)			
Listed on the United States TSCA (Toxic Substar Subject to reporting requirements of United State			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	5000 lb		
naphthalene (91-20-3)			
Listed on the United States TSCA (Toxic Substan	Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	100 lb		
styrene (100-42-5)			
Listed on the United States TSCA (Toxic Substar Subject to reporting requirements of United State	, , , , , , , , , , , , , , , , , , ,		
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ 1000 lb			
1,1,1,2-tetrachloroethane (630-20-6)			
Listed on the United States TSCA (Toxic Substan Subject to reporting requirements of United State			
CERCLA RQ	100 lb		
	ı		

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#### 1,1,2,2-tetrachloroethane (79-34-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 100 lb

#### 1,1,2-trichloroethane (79-00-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 100 lb

#### **1,2,3-trichloropropane** (96-18-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

#### acetone (67-64-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ 5000 lb

#### allyl chloride (107-05-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 1000 lb

#### tetrahydrofuran (109-99-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ 1000 lb

#### 15.2. International regulations

#### **CANADA**

#### benzene (71-43-2)

Listed on the Canadian DSL (Domestic Substances List)

### toluene (108-88-3)

Listed on the Canadian DSL (Domestic Substances List)

#### ethylbenzene (100-41-4)

Listed on the Canadian DSL (Domestic Substances List)

#### methanol (67-56-1)

Listed on the Canadian DSL (Domestic Substances List)

#### bromodichloromethane (75-27-4)

Listed on the Canadian NDSL (Non-Domestic Substances List)

#### chloroform (67-66-3)

Listed on the Canadian DSL (Domestic Substances List)

#### 1,1-dichloroethene (75-35-4)

Listed on the Canadian DSL (Domestic Substances List)

#### 1,2-dichloroethane (107-06-2)

Listed on the Canadian DSL (Domestic Substances List)

#### trichloroethylene (79-01-6)

Listed on the Canadian DSL (Domestic Substances List)

### carbon tetrachloride (56-23-5)

Listed on the Canadian DSL (Domestic Substances List)

### tetrachloroethylene (127-18-4)

Listed on the Canadian DSL (Domestic Substances List)

#### Methylene Chloride (75-09-2)

Listed on the Canadian DSL (Domestic Substances List)

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#### 2-Butanone (78-93-3)

Listed on the Canadian DSL (Domestic Substances List)

#### 1,2-dibromo-3-chloropropane (96-12-8)

Listed on the Canadian NDSL (Non-Domestic Substances List)

#### 1,2-Dibromoethane (106-93-4)

Listed on the Canadian DSL (Domestic Substances List)

#### 1,4-dichlorobenzene (106-46-7)

Listed on the Canadian DSL (Domestic Substances List)

#### 1,2-dichloropropane (78-87-5)

Listed on the Canadian DSL (Domestic Substances List)

#### cis-1,3-Dichloropropene (10061-01-5)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

#### 1,3-dichloropropene, trans- (10061-02-6)

Listed on the Canadian NDSL (Non-Domestic Substances List)

#### hexachlorobuta-1,3-diene (87-68-3)

Listed on the Canadian DSL (Domestic Substances List)

#### Isopropylbenzene (98-82-8)

Listed on the Canadian DSL (Domestic Substances List)

#### 4-Methyl-2-Pentanone (108-10-1)

Listed on the Canadian DSL (Domestic Substances List)

#### naphthalene (91-20-3)

Listed on the Canadian DSL (Domestic Substances List)

#### styrene (100-42-5)

Listed on the Canadian DSL (Domestic Substances List)

## 1,1,1,2-tetrachloroethane (630-20-6)

Listed on the Canadian DSL (Domestic Substances List)

#### 1,1,2,2-tetrachloroethane (79-34-5)

Listed on the Canadian DSL (Domestic Substances List)

### 1,1,2-trichloroethane (79-00-5)

Listed on the Canadian DSL (Domestic Substances List)

#### 1,2,3-trichloropropane (96-18-4)

Listed on the Canadian DSL (Domestic Substances List)

#### acetone (67-64-1)

Listed on the Canadian DSL (Domestic Substances List)

### allyl chloride (107-05-1)

Listed on the Canadian DSL (Domestic Substances List)

### tetrahydrofuran (109-99-9)

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

No additional information available

### **National regulations**

#### benzene (71-43-2)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

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#### toluene (108-88-3)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### ethylbenzene (100-41-4)

Listed on IARC (International Agency for Research on Cancer)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### methanol (67-56-1)

Listed on EPA Hazardous Air Pollutant (HAPS)

### bromodichloromethane (75-27-4)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

#### chloroform (67-66-3)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### 1,1-dichloroethene (75-35-4)

Listed on IARC (International Agency for Research on Cancer)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### 1,2-dichloroethane (107-06-2)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

### trichloroethylene (79-01-6)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### carbon tetrachloride (56-23-5)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### tetrachloroethylene (127-18-4)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### Methylene Chloride (75-09-2)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

### 2-Butanone (78-93-3)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### 1,2-dibromo-3-chloropropane (96-12-8)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

## 1,2-Dibromoethane (106-93-4)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

### 1,4-dichlorobenzene (106-46-7)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### 1,2-dichloropropane (78-87-5)

Listed on IARC (International Agency for Research on Cancer)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### hexachlorobuta-1,3-diene (87-68-3)

Listed on EPA Hazardous Air Pollutant (HAPS)

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#### Isopropylbenzene (98-82-8)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### 4-Methyl-2-Pentanone (108-10-1)

Listed on IARC (International Agency for Research on Cancer)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### naphthalene (91-20-3)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### styrene (100-42-5)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### 1,1,1,2-tetrachloroethane (630-20-6)

Listed on IARC (International Agency for Research on Cancer)

#### 1,1,2,2-tetrachloroethane (79-34-5)

Listed on IARC (International Agency for Research on Cancer)

Listed on EPA Hazardous Air Pollutant (HAPS)

#### 1,1,2-trichloroethane (79-00-5)

Listed on EPA Hazardous Air Pollutant (HAPS)

### 1,2,3-trichloropropane (96-18-4)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

#### allyl chloride (107-05-1)

Listed on EPA Hazardous Air Pollutant (HAPS)

### tetrahydrofuran (109-99-9)

Listed on IARC (International Agency for Research on Cancer)

#### 15.3. US State regulations

benzene (71-43-2)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	Yes	No	Yes	6.4 μg/day	
toluene (108-88	-3)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No		7000 μg/day
ethylbenzene (100-41-4)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	54 μg/day	

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methanol (67-56	-1)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No		47000 μg/day (inhalation); 23,000 μg/day (oral)
bromodichloron	nethane (75-27-4)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	5 μg/day	
chloroform (67-6	66-3)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	Yes	No	No	20 μg/day	
1,1-dichloroethe	ene (75-35-4)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		
1,2-dichloroetha	ne (107-06-2)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	10 μg/day	
trichloroethylen	e (79-01-6)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	Yes	No	Yes	14 μg/day	
carbon tetrachlo	oride (56-23-5)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	5 μg/day	
tetrachloroethyl	ene (127-18-4)				
U.S California - Proposition 65	U.S California - Proposition 65 - Developmental	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
- Carcinogens List	Toxicity	TOXICILY - Female	- Male		

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	:				
Methylene Chlo		110 0 115 1	110 0 115 1	N 100 110 1	
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	50 μg/day	
1,2-dibromo-3-c	hloropropane (96-12	2-8)			
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	Yes	0.1 μg/day	3.1 μg/day (oral); 4.3 μg/day (inhalation)
1,2-Dibromoeth	ane (106-93-4)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	Yes	No	Yes	0.2 μg/day	
1,4-dichloroben	zene (106-46-7)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	20 μg/day	
1,2-dichloropro	pane (78-87-5)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	9.7 μg/day	
hexachlorobuta	-1,3-diene (87-68-3)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		
Isopropylbenze					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		
	anone (108-10-1)				
4-Methyl-2-Pent			U.S California -	No significant risk level	Maximum allowable
4-Methyl-2-Pent U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	Proposition 65 - Reproductive Toxicity - Male	(NSRL)	dose level (MADL)

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naphthalene (91	_20_3)				
U.S	U.S California -	U.S California -	U.S California -	No significant viet level	Maximum allawahla
California - Proposition 65 - Carcinogens List	Proposition 65 - Developmental Toxicity	Proposition 65 - Reproductive Toxicity - Female	Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	5.8 μg/day	
styrene (100-42-	-5)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	27 μg/day	
1,1,1,2-tetrachlo	roethane (630-20-6)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		
1,1,2,2-tetrachlo	roethane (79-34-5)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	3 μg/day	
1,1,2-trichloroet	hane (79-00-5)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No	10 μg/day	
1,2,3-trichloropi	opane (96-18-4)				
U.S California - Proposition 65 - Carcinogens	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
List					

## SECTION 16: Other information

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE Data sources

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.

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### Full text of H-phrases:

H225	Highly flammable liquid and vapor	
H301	Toxic if swallowed	
H311	Toxic in contact with skin	
H351	Suspected of causing cancer	
H370	Causes damage to organs	

#### Phenova US SDS REV

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