

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 6.23

Revision Date 11.03.2025

Print Date 30.04.2025

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

1.1 Product identifiers

Product name : EPA 502/524 Volatiles Organic Calibration Mix A (without gases)

Product Number : 502111

Brand : Supelco

REACH No. :

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

Identified uses : Scientific research and development

1.3

1.4 Emergency telephone

Emergency Phone # : 000 800 1007 141 (CHEMTREC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Flammable liquids, (Category 2) H225: Highly flammable liquid and vapor.

Acute toxicity, (Category 3) H301: Toxic if swallowed.

Acute toxicity, (Category 3) H331: Toxic if inhaled.

Acute toxicity, (Category 3) H311: Toxic in contact with skin.

Germ cell mutagenicity, (Category 1B) H340: May cause genetic defects.

Carcinogenicity, (Category 1A) H350: May cause cancer.

Specific target organ toxicity - single exposure, (Category 1), H370: Causes damage to organs.

Eyes, Central nervous system

Specific target organ toxicity - repeated exposure, (Category 2), Liver, Kidney

H373: May cause damage to organs through prolonged or repeated exposure.

Long-term (chronic) aquatic hazard, (Category 2)

H411: Toxic to aquatic life with long lasting effects.

Hazardous to the ozone layer, (Category 1)

H420: Harms public health and the environment by destroying ozone in the upper atmosphere.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word	Danger
Hazard Statements	
H225	Highly flammable liquid and vapor.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H370	Causes damage to organs (Eyes, Central nervous system).
H373	May cause damage to organs (Liver, Kidney) through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H420	Harms public health and the environment by destroying ozone in the upper atmosphere.
Precautionary Statements	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P502	Refer to manufacturer or supplier for information on recovery or recycling.
Supplemental Hazard Statements	none
EUH208	Contains: 1,2-Dichlorobenzene, (E)-1,3-Dichloropropene, 4-chlorotoluene, Carbon tetrachloride, Tetrachlorethylene, 1,2,3-trichlorobenzene, trichloroethylene, (Z)-1,3-Dichloropropene. May produce an allergic reaction. Restricted to professional users. For use in industrial installations only.

Reduced Labeling (<= 125 ml)

Pictogram

Signal Word

Danger

Hazard Statements

H340 May cause genetic defects.
H350 May cause cancer.
H370 Causes damage to organs.
H420 Harms public health and the environment by destroying ozone in the upper atmosphere.
H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.

Precautionary Statements

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P502 Refer to manufacturer or supplier for information on recovery or recycling.

Supplemental Hazard Statements

none

2.3 Other hazards

This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Component		Classification	Concentration
Methanol			
CAS-No.	67-56-1	Flam. Liq. 2; Acute Tox. 3; STOT SE 1; H225, H301, H331, H311, H370 Concentration limits: >= 10 %: STOT SE 1, H370; 3 - < 10 %: STOT SE 2, H371;	>= 70 - < 90 %
EC-No.	200-659-6		
Index-No.	603-001-00-X		
Registration number	01-2119433307-44-XXXX		
(Z)-1,3-Dichloropropene			
CAS-No.	10061-01-5	Flam. Liq. 3; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; STOT SE 3; Asp. Tox. 1; Aquatic Acute 1; Aquatic Chronic 1;	>= 0,1 - < 0,25 %
EC-No.	233-195-8		
Index-No.	602-030-00-5 *		

		H226, H301, H331, H311, H315, H319, H317, H335, H304, H400, H410 M-Factor - Aquatic Acute: 10	
trichloroethylene Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)			
CAS-No.	79-01-6	Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1B; Muta. 2; Carc. 1B; STOT SE 3; Aquatic Chronic 3; H315, H319, H317, H341, H350, H336, H412 Concentration limits: >= 20 %: STOT SE 3, H336;	>= 0,1 - < 0,25 %
EC-No.	201-167-4		
Index-No.	602-027-00-9 *		
1,2-dibromoethane			
CAS-No.	106-93-4	Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; Carc. 1B; STOT SE 3; Aquatic Chronic 2; H301, H331, H311, H315, H319, H350, H335, H411	>= 0,1 - < 0,25 %
EC-No.	203-444-5		
Index-No.	602-010-00-6 *		
1,2,3-Trichloropropane Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)			
CAS-No.	96-18-4	Acute Tox. 3; Eye Irrit. 2; Muta. 2; Carc. 1B; Repr. 1B; STOT RE 1; Aquatic Chronic 3; H301, H331, H311, H319, H341, H350, H360F, H372, H412	>= 0,1 - < 0,25 %
EC-No.	202-486-1		
Index-No.	602-062-00-X *		
1,2,3-trichlorobenzene			
CAS-No.	87-61-6	Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 1; H317, H400, H410	>= 0,1 - < 0,25 %
EC-No.	201-757-1 *		
Bromoform			
CAS-No.	75-25-2	Flam. Liq. 3; Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; Aquatic Chronic 2; H226, H302, H331, H315, H319, H411	>= 0,1 - < 0,25 %
EC-No.	200-854-6		
Index-No.	602-007-00-X *		
Bromodichloromethane			
CAS-No.	75-27-4	Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; Carc. 2; STOT SE 3; H302, H315, H318, H351, H335	>= 0,1 - < 1 %
EC-No.	200-856-7 *		

bromochloromethane			
CAS-No.	74-97-5	Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; STOT SE 3; Ozone 1; H332, H315, H318, H335, H420	>= 0,1 - < 1 %
EC-No.	200-826-3		
	*		
Tetrachlorethylene			
CAS-No.	127-18-4	Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; Carc. 2; STOT SE 3; Aquatic Chronic 2; H315, H319, H317, H351, H336, H411 Concentration limits: >= 20 %: STOT SE 3, H336;	>= 0,1 - < 0,25 %
EC-No.	204-825-9		
Index-No.	602-028-00-4		
Registration	01-2119475329-28-		
number	XXXX		
1,1-Dichloroethene			
CAS-No.	75-35-4	Flam. Liq. 1; Acute Tox. 4; Eye Irrit. 2; Carc. 2; STOT RE 1; STOT RE 2; Aquatic Chronic 3; H224, H302, H332, H319, H351, H372, H373, H412	>= 0,1 - < 0,25 %
EC-No.	200-864-0		
Index-No.	602-025-00-8		
	*		
Chloroform			
CAS-No.	67-66-3	Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; Carc. 2; Repr. 2; STOT SE 3; STOT RE 1; H302, H331, H315, H319, H351, H361d, H336, H372 Concentration limits: 20 %: STOT SE 3, H336;	>= 0,1 - < 1 %
EC-No.	200-663-8		
Index-No.	602-006-00-4		
Registration	01-2119486657-20-		
number	XXXX		
1,1,1-Trichloroethane			
CAS-No.	71-55-6	Acute Tox. 4; Ozone 1; H332, H420	>= 0,1 - < 1 %
EC-No.	200-756-3		
Index-No.	602-013-00-2		
	*		
1,1,1,2-Tetrachloroethane			
CAS-No.	630-20-6	Acute Tox. 4; Eye Dam. 1; Carc. 2; Aquatic Chronic 3; H302, H332, H318, H351, H412	>= 0,1 - < 0,25 %
EC-No.	211-135-1		
	*		
1,2-Dichloropropane			
CAS-No.	78-87-5	Flam. Liq. 2; Acute Tox. 4; Acute Tox. 3; Carc. 1B; H225, H302, H331, H350	>= 0,1 - < 1 %
EC-No.	201-152-2		
Index-No.	602-020-00-0		
	*		

cumene			
CAS-No.	98-82-8	Flam. Liq. 3; Carc. 1B; STOT SE 3; Asp. Tox. 1; Aquatic Chronic 2; H226, H350, H335, H304, H411	>= 0,1 - < 0,25 %
EC-No.	202-704-5		
Index-No.	601-024-00-X *		
sec-Butylbenzene			
CAS-No.	135-98-8	Flam. Liq. 3; Acute Tox. 4; Aquatic Acute 1; Aquatic Chronic 1; H226, H302, H400, H410 M-Factor - Aquatic Acute: 1	>= 0,1 - < 0,25 %
EC-No.	205-227-0 *		
4-chlorotoluene			
CAS-No.	106-43-4	Flam. Liq. 3; Acute Tox. 4; Skin Sens. 1; Aquatic Chronic 2; H226, H332, H317, H411	>= 0,1 - < 0,25 %
EC-No.	203-397-0		
Index-No.	602-040-00-X *		
1,2-Dibromo-3-chloropropane			
CAS-No.	96-12-8	Acute Tox. 3; Muta. 1B; Carc. 1B; Repr. 1A; STOT RE 2; Aquatic Chronic 3; H301, H340, H350, H360, H373, H412	>= 0,1 - < 0,25 %
EC-No.	202-479-3		
Index-No.	602-021-00-6 *		
1,2-Dichloroethane Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)			
CAS-No.	107-06-2	Flam. Liq. 2; Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; Carc. 1B; STOT SE 3; Asp. Tox. 1; H225, H302, H331, H315, H319, H350, H335, H304	>= 0,1 - < 1 %
EC-No.	203-458-1		
Index-No.	602-012-00-7		
Registration number	01-2119484658-20- XXXX		
2-chlorotoluene			
CAS-No.	95-49-8	Flam. Liq. 3; Acute Tox. 4; Repr. 2; Aquatic Acute 1; Aquatic Chronic 2; H226, H332, H361d, H400, H411 M-Factor - Aquatic Acute: 1	>= 0,1 - < 0,25 %
EC-No.	202-424-3		
Index-No.	602-040-00-X *		
1,1-Dichloropropene			
CAS-No.	563-58-6	Flam. Liq. 2; Acute Tox. 3; Aquatic Chronic 3; H225, H301, H412	>= 0,1 - < 0,25 %
EC-No.	209-253-3		
Index-No.	602-031-00-0 *		

(E)-1,3-Dichloropropene			
CAS-No.	10061-02-6	Flam. Liq. 3; Acute Tox. 3;	>= 0,1 - < 0,25 %
EC-No.	431-460-4	Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; Carc. 2; STOT SE 3; Asp. Tox. 1; Aquatic Acute 1; Aquatic Chronic 1; H226, H301, H332, H311, H315, H319, H317, H351, H335, H304, H400, H410	
	*	M-Factor - Aquatic Acute: 10	
styrene			
CAS-No.	100-42-5	Flam. Liq. 3; Acute Tox. 4;	>= 0,1 - < 0,25 %
EC-No.	202-851-5	Skin Irrit. 2; Eye Irrit. 2; Repr. 2; STOT SE 3; STOT RE 1; Asp. Tox. 1; Aquatic Chronic 3; H226, H332, H315, H319, H361d, H335, H372, H304, H412	
Index-No.	601-026-00-0		
	*		
p-Cymene			
CAS-No.	99-87-6	Flam. Liq. 3; Acute Tox. 3;	>= 0,1 - < 0,25 %
EC-No.	202-796-7	Repr. 2; Asp. Tox. 1; Aquatic Chronic 2; H226, H331, H361f, H304, H411	
Index-No.	601-094-00-1	Acute inhalation toxicity(vapor): 3 mg/l	
	*		
1,1,2,2-tetrachloroethane			
CAS-No.	79-34-5	Acute Tox. 2; Acute Tox. 1; Aquatic Chronic 2; H330, H310, H411	>= 0,1 - < 0,25 %
EC-No.	201-197-8		
Index-No.	602-015-00-3		
	*		
1,1,2-Trichloroethane			
CAS-No.	79-00-5	Acute Tox. 4; Acute Tox. 3; Acute Tox. 4; Carc. 2; Aquatic Chronic 3; H302, H331, H312, H351, H412	>= 0,1 - < 0,25 %
EC-No.	201-166-9		
Index-No.	602-014-00-8		
	*		
Hexachlorobuta-1,3-diene			
CAS-No.	87-68-3	Acute Tox. 3; Acute Tox. 2; Skin Irrit. 2; Eye Irrit. 2; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H310, H315, H319, H351, H400, H410	>= 0,1 - < 0,25 %
EC-No.	201-765-5		
	*		

1,2-Dichlorobenzene			
CAS-No.	95-50-1	Acute Tox. 4; Skin Irrit. 2;	>= 0,1 - < 0,25 %
EC-No.	202-425-9	Eye Irrit. 2; Skin Sens.	
Index-No.	602-034-00-7	1B; STOT SE 3; Aquatic	
*		Acute 1; Aquatic Chronic 1; H302, H332, H315, H319, H317, H335, H400, H410	
1,4-dichlorobenzene			
CAS-No.	106-46-7	Eye Irrit. 2; Carc. 2;	>= 0,1 - < 0,25 %
EC-No.	203-400-5	Aquatic Acute 1; Aquatic	
Index-No.	602-035-00-2	Chronic 1; H319, H351, H400, H410	
*		M-Factor - Aquatic Acute: 1	
1,2,4-trichlorobenzene			
CAS-No.	120-82-1	Acute Tox. 4; Skin Irrit. 2;	>= 0,1 - < 0,25 %
EC-No.	204-428-0	Aquatic Acute 1; Aquatic	
Index-No.	602-087-00-6	Chronic 1; H302, H315, H400, H410	
Registration number	01-2119421789-28-XXXX		
Naphthalene			
CAS-No.	91-20-3	Flam. Sol. 2; Acute Tox. 4;	>= 0,1 - < 0,25 %
EC-No.	202-049-5	Carc. 2; Aquatic Acute 1;	
Index-No.	601-052-00-2	Aquatic Chronic 1; H228, H302, H351, H400, H410	
Registration number	01-2119561346-37-XXXX		
benzene			
CAS-No.	71-43-2	Flam. Liq. 2; Skin Irrit. 2;	>= 0,1 - < 0,25 %
EC-No.	200-753-7	Eye Irrit. 2; Muta. 1B;	
Index-No.	601-020-00-8	Carc. 1A; STOT RE 1; Asp. Tox. 1; Aquatic Chronic 3; H225, H315, H319, H340, H350, H372, H304, H412	
Registration number	01-2119447106-44-XXXX		
Toluene			
CAS-No.	108-88-3	Flam. Liq. 2; Skin Irrit. 2;	>= 0,1 - < 0,25 %
EC-No.	203-625-9	Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1; Aquatic Chronic 3; H225, H315, H361d, H336, H373, H304, H412	
Index-No.	601-021-00-3	Concentration limits: 20 %: STOT SE 3, H336;	
Registration number	01-2119471310-51-XXXX		
Dichloromethane			
CAS-No.	75-09-2	Skin Irrit. 2; Eye Irrit. 2;	>= 0,1 - < 1 %
EC-No.	200-838-9	Carc. 2; STOT SE 3; H315, H319, H351, H336	
Index-No.	602-004-00-3		

Registration number	01-2119480404-41-XXXX	Concentration limits: 20 %: STOT SE 3, H336;	
Carbon tetrachloride			
CAS-No.	56-23-5	Acute Tox. 3; Skin Sens. 1B; Carc. 2; STOT RE 1; Aquatic Chronic 3; Ozone 1; H301, H331, H311, H317, H351, H372, H412, H420	>= 0,2 - < 0,25 %
EC-No.	200-262-8	Concentration limits: >= 1 %: STOT RE 1, H372; 0,2 - < 1 %: STOT RE 2, H373;	
Index-No.	602-008-00-5*		

*A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, or the annual tonnage does not require a registration.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: fresh air. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage). Call a doctor immediately (mention methanol ingestion). Only in exceptional cases, if no medical care is available within one hour, induce vomiting (only in fully conscious persons) and make victim drink ethanol again (approx. 0.3 ml of a 40% alcoholic beverage/kg body weight/hour).

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Mixture with combustible ingredients.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage class

Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|---------------------------------|-------------------|
| a) Physical state | liquid |
| b) Color | No data available |
| c) Odor | No data available |
| d) Melting point/freezing point | No data available |
| e) Initial boiling point | No data available |

- and boiling range
- | | | |
|----|--|--|
| f) | Flammability (solid, gas) | No data available |
| g) | Upper/lower flammability or explosive limits | No data available |
| h) | Flash point | 11 °C |
| i) | Autoignition temperature | No data available |
| j) | Decomposition temperature | No data available |
| k) | pH | No data available |
| l) | Viscosity | Viscosity, kinematic: No data available
Viscosity, dynamic: No data available |
| m) | Water solubility | No data available |
| n) | Partition coefficient: n-octanol/water | No data available |
| o) | Vapor pressure | No data available |
| p) | Density | No data available |
| | Relative density | No data available |
| q) | Relative vapor density | No data available |
| r) | Particle characteristics | No data available |
- s) Explosive properties Not classified as explosive.
- t) Oxidizing properties none

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Vapors may form explosive mixture with air.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Violent reactions possible with:

10.4 Conditions to avoid

Warming.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture

Acute toxicity

Oral: No data available

Acute toxicity estimate Oral - 110,29 mg/kg

(Calculation method)

Acute toxicity estimate Inhalation - 4 h - 3,36 mg/l - vapor (Calculation method)

Acute toxicity estimate Dermal - 292,51 mg/kg

(Calculation method)

Skin corrosion/irritation

Remarks: No data available

Serious eye damage/eye irritation

Remarks: No data available

Respiratory or skin sensitization

No data available

Mixture may produce an allergic reaction.

Germ cell mutagenicity

No data available

Possible mutagen

Carcinogenicity

This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Remarks: No data available

Mixture causes damage to organs. - Eyes, Central nervous system

Specific target organ toxicity - repeated exposure

Remarks: No data available

Mixture may cause damage to organs through prolonged or repeated exposure.

- Liver, Kidney

Aspiration hazard

No data available

11.2 Additional Information

Endocrine disrupting properties

Product:

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Methyl alcohol may be fatal or cause blindness if swallowed., Cannot be made non-poisonous., Effects due to ingestion may include:, Nausea, Headache, Vomiting, Gastrointestinal disturbance, Dizziness, Weakness, Confusion., Drowsiness, Unconsciousness, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Other dangerous properties can not be excluded.

This substance should be handled with particular care.

Handle in accordance with good industrial hygiene and safety practice.

Components

Methanol

Acute toxicity

Acute toxicity estimate Oral - 100,1 mg/kg

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Symptoms: Nausea, Vomiting

Acute toxicity estimate Inhalation - 4 h - 3,1 mg/l - vapor

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Symptoms: Irritation symptoms in the respiratory tract.

Acute toxicity estimate Dermal - 300,1 mg/kg

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

Remarks: (ECHA)

Remarks: Drying-out effect resulting in rough and chapped skin.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Remarks: (ECHA)

Respiratory or skin sensitization

Sensitisation test: - Guinea pig

Result: negative
(OECD Test Guideline 406)

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster lung cells

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female - Bone marrow

Result: negative

Carcinogenicity

Did not show carcinogenic effects in animal experiments.

Reproductive toxicity

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

Causes damage to organs. - Eyes, Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Acute oral toxicity - Nausea, Vomiting

Acute inhalation toxicity - Irritation symptoms in the respiratory tract.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

(Z)-1,3-Dichloropropene

Acute toxicity

LD50 Oral - Rat - male and female - 85 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - female - 4 h - 3,39 mg/l - vapor

(OECD Test Guideline 403)

LD50 Dermal - Rat - male and female - 794 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Remarks: Causes skin irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation - 10 s

Remarks: (ECHA)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: positive
(OECD Test Guideline 406)
Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Germ cell mutagenicity

Test Type: Ames test
Test system: Escherichia coli/Salmonella typhimurium
Result: Positive results were obtained in some in vitro tests.
Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Result: negative

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause respiratory irritation.
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

Aspiration may cause pulmonary edema and pneumonitis.

trichloroethylene

Acute toxicity

Oral: No data available
LC50 Inhalation - Rat - male - 4 h - 67,41 mg/l
Remarks: (ECHA)
LD50 Dermal - Rabbit - > 20.000 mg/kg
Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit
Result: Skin irritation - 4 h
(OECD Test Guideline 404)
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Remarks: Drying-out effect resulting in rough and chapped skin.

Serious eye damage/eye irritation

Eyes - Rabbit
Result: Eye irritation - 24 h
Remarks: (RTECS)
Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse
Result: positive
(OECD Test Guideline 429)

Germ cell mutagenicity

Suspected of causing genetic defects.

Test Type: Ames test
Test system: S. typhimurium
Result: negative
Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Result: negative
Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Result: negative
Remarks: (ECHA)
Species: Mouse
Result: negative
Remarks: (ECHA)

Carcinogenicity

Presumed to have carcinogenic potential for humans

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

1,2-dibromoethane

Acute toxicity

Acute toxicity estimate Oral - 140 mg/kg
(Calculation method)

Acute toxicity estimate Inhalation - 4 h - 3,1 mg/l - vapor
(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

LD50 Dermal - Rabbit - 300 mg/kg

Remarks: Nutritional and Gross Metabolic: Changes in: Body temperature decrease.
Extremely corrosive and destructive to tissue.
(RTECS)

Acute toxicity estimate Dermal - 300 mg/kg
(Calculation method)

Skin corrosion/irritation

Remarks: Causes skin irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irritating to eyes.
(OECD Test Guideline 405)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: Not a skin sensitizer.
(OECD Test Guideline 429)

Germ cell mutagenicity

In vivo tests did not show mutagenic effects

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Result: positive

Test Type: unscheduled DNA synthesis assay

Test system: rat hepatocytes

Result: positive

Test Type: gene mutation test

Test system: Chinese hamster ovary cells

Result: positive

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster ovary cells

Result: positive

Method: OECD Test Guideline 478

Species: Mouse - male

Result: negative

Carcinogenicity

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.
Possible human carcinogen

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation. - Respiratory Tract

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

1,2,3-Trichloropropane

Acute toxicity

LD50 Oral - Rat - male - 120 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Oral - 120 mg/kg

(ATE value derived from LD50/LC50 value)

LC50 Inhalation - Rat - male and female - 4 h - > 4,8 mg/l - vapor

(OECD Test Guideline 403)

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:,
After a latency period:, Lung edema

Acute toxicity estimate Inhalation - 4,81 mg/l - vapor
(ATE value derived from LD50/LC50 value)
LD50 Dermal - Rabbit - male and female - 523 mg/kg
(OECD Test Guideline 402)
Acute toxicity estimate Dermal - 523 mg/kg
(ATE value derived from LD50/LC50 value)

Skin corrosion/irritation

Skin - Rabbit
Result: No skin irritation - 24 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit
Result: Eye irritation
(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig
Result: Does not cause skin sensitization.
(OECD Test Guideline 406)

Germ cell mutagenicity

Suspected of causing genetic defects.
Test Type: Ames test
Test system: Salmonella typhimurium
Result: positive

Carcinogenicity

Presumed to have carcinogenic potential for humans

Reproductive toxicity

May damage fertility.

Specific target organ toxicity - single exposure

Acute inhalation toxicity - mucosal irritations, Cough, Shortness of breath, Possible damages:, After a latency period:, Lung edema

Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure.
- Kidney, Liver, Mucous membranes
Ingestion, Skin contact - May cause damage to organs through prolonged or repeated exposure.
- Kidney, Liver

Aspiration hazard

No data available

1,2,3-trichlorobenzene

Acute toxicity

LD50 Oral - Rat - male and female - > 5.000 mg/kg
(OECD Test Guideline 401)
Inhalation: No data available
Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit
Result: negative

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: slight irritation

(OECD Test Guideline 405)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: positive

(OECD Test Guideline 429)

Germ cell mutagenicity

No data available

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Bromoform

Acute toxicity

LD50 Oral - Rat - 933 mg/kg

Remarks: Lungs, Thorax, or Respiration:Dyspnea.

(RTECS)

Acute toxicity estimate Oral - 933 mg/kg

(ATE value derived from LD50/LC50 value)

Acute toxicity estimate Inhalation - 4 h - 3,1 mg/l - vapor

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Dermal: No data available

Skin corrosion/irritation

Remarks: Causes skin irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Remarks: Causes serious eye irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Respiratory or skin sensitization

In Chemico Skin Sensitisation: Direct Peptide Reactivity Assay (DPRA) - In vitro study

Result: negative
(OECD Test Guideline 442C)

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Test Type: Ames test

Test system: *S. typhimurium*

Result: positive

Test Type: sister chromatid exchange assay

Test system: Chinese hamster ovary cells

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster ovary cells

Result: negative

Method: OECD Test Guideline 486

Species: Rat - male

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Bromodichloromethane

Acute toxicity

LD50 Oral - Rat - 430,0 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity).

Behavioral:Tremor.

Liver:Other changes.

(RTECS)

Acute toxicity estimate Oral - 430 mg/kg

(ATE value derived from LD50/LC50 value)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

Remarks: Irritating to eyes, respiratory system and skin.

Serious eye damage/eye irritation

Remarks: Causes serious eye damage.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Laboratory experiments have shown mutagenic effects.

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

bromochloromethane**Acute toxicity**

LD50 Oral - Rat - 5.000 mg/kg

Remarks: (RTECS)

Acute toxicity estimate Inhalation - 4 h - 15,914 mg/l - vapor
(Expert judgment)

LD50 Dermal - Rabbit - > 20.000 mg/kg

Remarks: (RTECS)

Skin corrosion/irritation

Remarks: Causes skin irritation.

Serious eye damage/eye irritation

Remarks: Causes serious eye damage.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Tetrachlorethylene

Acute toxicity

LD50 Oral - Rat - male and female - 3.420 mg/kg

(OECD Test Guideline 401)

Remarks: (ECHA)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Skin irritation - 4 h

(OECD Test Guideline 404)

Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation - 24 h

(Draize Test)

Remarks: (RTECS)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: May cause sensitization by skin contact.

(OECD Test Guideline 429)

Remarks: (ECHA)

Germ cell mutagenicity

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster ovary cells

Result: negative

Remarks: (ECHA)

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Remarks: (ECHA)

Method: OECD Test Guideline 474

Species: Mouse - male

Result: negative

Remarks: (ECHA)

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

1,1-Dichloroethene

Acute toxicity

LD50 Oral - Rat - female - 1.500 mg/kg

Remarks: (ECHA)

Acute toxicity estimate Oral - 1.500 mg/kg

(ATE value derived from LD50/LC50 value)

Acute toxicity estimate Inhalation - 4 h - 11,1 mg/l - vapor

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Dermal: No data available

Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE)

Result: No skin irritation - 3 - 60 min

(Regulation (EC) No. 440/2008, Annex, B.40)

Serious eye damage/eye irritation

Eyes - Bovine cornea

Result: Causes serious eye irritation. - 10 min

(OECD Test Guideline 437)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Method: OECD Test Guideline 489

Species: Rat - male - Bone marrow

Result: positive

Method: OECD Test Guideline 474

Species: Mouse - Bone marrow

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - Bone marrow

Result: negative

Method: OECD Test Guideline 478

Species: Rat - Implant

Result: negative

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure.

- Nose

Oral - May cause damage to organs through prolonged or repeated exposure.

- Liver

Aspiration hazard

No data available

Chloroform**Acute toxicity**

LD50 Oral - Rat - male - 908 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Oral - 908 mg/kg

(ATE value derived from LD50/LC50 value)

LC50 Inhalation - Rat - 6 h - 9,17 mg/l - vapor

Acute toxicity estimate Inhalation - Expert judgment - 4 h - 3,1 mg/l - vapor

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin. - 24 h

Remarks: (ECHA)

Remarks: Drying-out effect resulting in rough and chapped skin.

Skin - Rabbit

Result: slight irritation

Remarks: (IUCLID)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irritating to eyes.

Remarks: (ECHA)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(Regulation (EC) No. 440/2008, Annex, B.6)

Germ cell mutagenicity

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Result: negative

Remarks: (ECHA)

Test Type: unscheduled DNA synthesis assay

Test system: Liver

Result: negative

Remarks: (ECHA)

Method: OECD Test Guideline 474

Species: Rat - male and female - Red blood cells (erythrocytes)

Result: negative

Method: OECD Test Guideline 486

Species: Rat - male - Liver cells

Result: negative

Species: Mouse - female

Result: negative

Remarks: (ECHA)

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Oral - Causes damage to organs through prolonged or repeated exposure.

- Liver, Kidney

Aspiration hazard

No data available

1,1,1-Trichloroethane**Acute toxicity**

LD50 Oral - Rat - 9.600 mg/kg

Symptoms: Nausea, Vomiting, Risk of aspiration upon vomiting., Aspiration may cause pulmonary edema and pneumonitis.

Remarks: (RTECS)

Acute toxicity estimate Inhalation - 4 h - 19 mg/l - vapor

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Skin irritation - 4 h

(OECD Test Guideline 404)

Remarks: Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: slight irritation

Remarks: (ECHA)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Result: Positive results were obtained in some in vitro tests.

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Acute oral toxicity - Nausea, Vomiting, Risk of aspiration upon vomiting., Aspiration may cause pulmonary edema and pneumonitis.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

1,1,1,2-Tetrachloroethane**Acute toxicity**

LD50 Oral - Rat - 670,0 mg/kg

LC50 Inhalation - Rat - 4 h - 2100 ppm

Remarks: Diarrhea

LD50 Dermal - Rabbit - 20.000 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Severe eye irritation - 24 h
(Draize Test)

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.
Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

1,2-Dichloropropane**Acute toxicity**

LD50 Oral - Rat - 1.947 mg/kg

Remarks: (RTECS)

Acute toxicity estimate Oral - 1.947 mg/kg

(ATE value derived from LD50/LC50 value)

LC50 Inhalation - Rat - male and female - 4 h - 9,4 mg/l - vapor

Remarks: (ECHA)

Acute toxicity estimate Inhalation - 9,4 mg/l - vapor

(ATE value derived from LD50/LC50 value)

LD50 Dermal - Rabbit - male - 10.100 mg/kg

Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: slight irritation - 4 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Chicken eye

Result: No eye irritation
(OECD Test Guideline 438)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative
(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Result: negative

Method: OPPTS 870.5395

Species: Mouse - male - Red blood cells (erythrocytes)

Result: negative

Species: Rat - male

Result: negative

Remarks: (ECHA)

Carcinogenicity

Presumed to have carcinogenic potential for humans

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure**Aspiration hazard**

No data available

cumene**Acute toxicity**

Symptoms: gastric pain, Vomiting

Symptoms: mucosal irritations, Cough, Shortness of breath, Headache, Nausea, Vomiting, Possible damages:, damage of respiratory tract

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation
(OECD Test Guideline 404)

Remarks: Drying-out effect resulting in rough and chapped skin.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 72 h

(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster ovary cells

Result: negative

Test Type: Ames test

Test system: *S. typhimurium*

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells

Result: negative

Test Type: unscheduled DNA synthesis assay

Test system: rat hepatocytes

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female - Red blood cells (erythrocytes)

Result: negative

Method: OECD Test Guideline 474

Species: Rat - male - Bone marrow

Result: Positive results were obtained in some in vivo tests.

Carcinogenicity

Presumed to have carcinogenic potential for humans

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation. - Respiratory Tract

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Acute oral toxicity - gastric pain, Vomiting

Acute inhalation toxicity - mucosal irritations, Cough, Shortness of breath, Headache, Nausea, Vomiting, Possible damages: , damage of respiratory tract

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

Aspiration may cause pulmonary edema and pneumonitis.

sec-Butylbenzene

Acute toxicity

LD50 Oral - Rat - 1.926 mg/kg

Remarks: (RTECS)

Inhalation: No data available

LD50 Dermal - Rabbit - > 13.760 mg/kg

Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: Mild eye irritant - 24 h

Remarks: (RTECS)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation - 24 h

Remarks: (RTECS)

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

4-chlorotoluene

Acute toxicity

LD50 Oral - Rat - male - 2.273 mg/kg

(OECD Test Guideline 401)

Inhalation: absorption

Acute toxicity estimate Inhalation - 11,1 mg/l - vapor
(Expert judgment)

LD50 Dermal - Rat - > 5.000 mg/kg

Remarks: (External MSDS)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

Remarks: (External MSDS)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Remarks: (External MSDS)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: positive

Remarks: (ECHA)

Germ cell mutagenicity

No data available

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Result: negative

Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

1,2-Dibromo-3-chloropropane**Acute toxicity**

LD50 Oral - Rat - 170,0 mg/kg

Remarks: (RTECS)

LC50 Inhalation - Rat - 8 h - 103 ppm

Remarks: (RTECS)

LD50 Dermal - Rabbit - 1.400 mg/kg

Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: Severe skin irritation

Remarks: (RTECS)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation

Remarks: (RTECS)

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

Presumed to have carcinogenic potential for humans

Reproductive toxicity

Known human reproductive toxicant

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Oral - May cause damage to organs through prolonged or repeated exposure.

- Testes

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard

No data available

1,2-Dichloroethane

Acute toxicity

LD50 Oral - Rat - male - 770 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Oral - 770 mg/kg

(ATE value derived from LD50/LC50 value)

LC50 Inhalation - Rat - male and female - 4 h - 7,8 mg/l - vapor

(OECD Test Guideline 403)

Acute toxicity estimate Inhalation - 7,8 mg/l - vapor

(ATE value derived from LD50/LC50 value)

LD50 Dermal - Rabbit - male - 4.890 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: irritating

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test

Test system: S. typhimurium

Result: positive

Remarks: (ECHA)

Test Type: Ames test

Test system: Escherichia coli

Result: positive

Test Type: In vitro mammalian cell gene mutation test

Test system: human lymphoblastoid cells

Result: positive

Test Type: In vitro mammalian cell gene mutation test

Test system: human lymphoblastoid cells

Result: positive

Remarks: (ECHA)

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster lung cells

Result: positive

Remarks: (ECHA)

Test Type: unscheduled DNA synthesis assay

Test system: rat hepatocytes

Result: positive

Method: OECD Test Guideline 474

Species: Mouse - male and female

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female - Red blood cells (erythrocytes)

Result: negative
Species: Rat - female - mammary gland
Result: negative
Remarks: (ECHA)
Method: OECD Test Guideline 477
Species: Drosophila melanogaster - male - sperm
Result: positive
Species: Mouse - male
Result: negative
Remarks: (ECHA)

Carcinogenicity

Presumed to have carcinogenic potential for humans

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

Aspiration hazard

Aspiration may cause pulmonary edema and pneumonitis.

2-chlorotoluene

Acute toxicity

LD50 Oral - Rat - male - 3.227 mg/kg
Remarks: (ECHA)
Acute toxicity estimate Inhalation - 11,1 mg/l - vapor
(Expert judgment)
Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit
Result: No skin irritation - 4 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit
Result: No eye irritation
(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig
Result: negative
(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test
Test system: Mouse lymphoma test
Result: negative
Test Type: Mutagenicity (mammal cell test): chromosome aberration.
Test system: Chinese hamster ovary cells
Result: negative
Remarks: (ECHA)

Test Type: Ames test
Test system: Escherichia coli/Salmonella typhimurium
Result: negative
Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

1,1-Dichloropropene

Acute toxicity

Oral: No data available
LD50 Oral - 100 mg/kg
Inhalation: No data available
Dermal: No data available

Skin corrosion/irritation

Remarks: No data available

Serious eye damage/eye irritation

Remarks: No data available

Respiratory or skin sensitization

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

(E)-1,3-Dichloropropene

Acute toxicity

Acute toxicity estimate Oral - 100,1 mg/kg

(Expert judgment)

Remarks: The value is given in analogy to the following substances: (Z)-1,3-Dichloropropene

Acute toxicity estimate Inhalation - 4 h - 11 mg/l - vapor

(Expert judgment)

Remarks: The value is given in analogy to the following substances: (Z)-1,3-Dichloropropene

Acute toxicity estimate Dermal - 300 mg/kg

(Expert judgment)

Remarks: The value is given in analogy to the following substances: (Z)-1,3-Dichloropropene

Skin corrosion/irritation

Remarks: Causes skin irritation.

The value is given in analogy to the following substances: (Z)-1,3-Dichloropropene

Serious eye damage/eye irritation

Remarks: Causes serious eye irritation.

The value is given in analogy to the following substances: (Z)-1,3-Dichloropropene

Respiratory or skin sensitization

May cause allergic skin reaction. The value is given in analogy to the following substances:

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Remarks: The value is given in analogy to the following substances: (Z)-1,3-Dichloropropene

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

Aspiration may cause pulmonary edema and pneumonitis.

styrene

Acute toxicity

LD50 Oral - Rat - male - 5.000 mg/kg

Remarks: (ECHA)

Symptoms: Irritation of mucous membranes

LC50 Inhalation - Rat - 4 h - 11,8 mg/l - vapor

Remarks: (ECHA)

Symptoms: Possible damages:, mucosal irritations

LD50 Dermal - Rat - male and female - > 2.000 mg/kg
(OECD Test Guideline 402)

Skin corrosion/irritation

Remarks: Causes skin irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Remarks: Causes serious eye irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Laboratory experiments have shown mutagenic effects.

Test Type: sister chromatid exchange assay

Test system: Human lymphocytes

Result: positive

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Human lymphocytes

Result: positive

Method: OECD Test Guideline 474

Species: Mouse - male - Red blood cells (erythrocytes)

Result: negative

Method: OECD Test Guideline 486

Species: Mouse - female - Liver cells

Result: negative

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation. - Nose

Acute oral toxicity - Irritation of mucous membranes

Acute inhalation toxicity - Possible damages: , mucosal irritations

Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure.

- hearing organs

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard

Aspiration may cause pulmonary edema and pneumonitis.

p-Cymene

Acute toxicity

LD50 Oral - Rat - male and female - 4.750 mg/kg

Acute toxicity estimate Inhalation - 4 h - 3 mg/l - vapor
(Expert judgment)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Acute toxicity estimate Inhalation - 3 mg/l - vapor

(Acute toxicity estimate according to Regulation (EC) No. 1272/2008)

LD50 Dermal - Rabbit - > 5.000 mg/kg

Remarks: (ECHA)

Skin corrosion/irritation

Remarks: No data available

Skin - reconstructed human epidermis (RhE)

Result: No skin irritation

(OECD Test Guideline 439)

Serious eye damage/eye irritation

Eyes - Humans

Result: No eye irritation

(OECD Test Guideline 492)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Chromosome aberration test in vitro

Test system: Human lymphocytes

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster fibroblasts

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

Suspected of damaging fertility.

Developmental Toxicity- Rat- male and female- Oral

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

May be fatal if swallowed and enters airways.

1,1,2,2-tetrachloroethane

Acute toxicity

Symptoms: Nausea, Vomiting

Acute toxicity estimate Inhalation - 4 h - 0,501 mg/l - vapor
(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Symptoms: Cough, Shortness of breath

Acute toxicity estimate Dermal - 5 mg/kg
(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Skin corrosion/irritation

Remarks: Drying-out effect resulting in rough and chapped skin.

Serious eye damage/eye irritation

Remarks: Lacrimal irritation due to vapours.

Risk of corneal clouding.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Acute oral toxicity - Nausea, Vomiting

Acute inhalation toxicity - Cough, Shortness of breath

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

1,1,2-Trichloroethane

Acute toxicity

LD50 Oral - Rat - 836,0 mg/kg

Remarks: (RTECS)

Acute toxicity estimate Inhalation - 4 h - 3 mg/l - vapor
(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Acute toxicity estimate Dermal - 1.100 mg/kg
(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation - 24 h

Remarks: (RTECS)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation - 24 h

Remarks: (RTECS)

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Hexachlorobuta-1,3-diene**Acute toxicity**

LD50 Oral - Rat - 82,0 mg/kg

LC50 Inhalation - Mouse - 370,0 mg/m³ - dust/mist

LD50 Dermal - Rabbit - 100,0 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: Skin irritation - 24 h

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Suspected of causing cancer.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

1,2-Dichlorobenzene**Acute toxicity**

LD50 Oral - Rat - male and female - 2.000 mg/kg
(OECD Test Guideline 401)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Acute toxicity estimate Oral - 2.000 mg/kg
(ATE value derived from LD50/LC50 value)

Acute toxicity estimate Inhalation - 4 h - 11,1 mg/l - vapor
(Expert judgment)

LD50 Dermal - Rabbit - > 10.000 mg/kg

Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin. - 24 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Remarks: Causes serious eye irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: positive
(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster ovary cells

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Result: negative

Method: OECD Test Guideline 474

Species: Rat - male - Red blood cells (erythrocytes)

Result: negative

Method: OECD Test Guideline 489

Species: Rat - male - Bone marrow

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation. - Respiratory Tract

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

Aspiration hazard

No data available

1,4-dichlorobenzene

Acute toxicity

LD50 Oral - Rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - > 5,07 mg/l - vapor

(OECD Test Guideline 403)

LD50 Dermal - Rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Remarks: Causes serious eye irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Species: Mouse - male and female - Bone marrow

Result: negative

Remarks: (ECHA)

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

1,2,4-trichlorobenzene

Acute toxicity

LD50 Oral - Rat - male and female - 930 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Oral - 930 mg/kg

(ATE value derived from LD50/LC50 value)

Inhalation: No data available

LD50 Dermal - Rat - 6.139 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity).

Behavioral:Convulsions or effect on seizure threshold.

(RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: Moderate skin irritation

Remarks: (RTECS)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 24 h

(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test

Test system: *S. typhimurium*

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Naphthalene

Acute toxicity

Acute toxicity estimate Oral - 533 mg/kg
(ATE value derived from LD50/LC50 value)
LC50 Inhalation - Rat - male and female - 4 h - > 0,4 mg/l - vapor
(OECD Test Guideline 403)
LD50 Dermal - Rabbit - 20.000 mg/kg
Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit
Result: No skin irritation - 24 h
Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit
Result: No eye irritation - 24 h
Remarks: (ECHA)

Respiratory or skin sensitization

Maximization Test - Guinea pig
Result: negative
(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test): chromosome aberration.
Test system: Chinese hamster ovary cells
Result: positive
Test Type: Ames test
Test system: Salmonella typhimurium
Result: negative
Method: OECD Test Guideline 486
Species: Rat - male - Liver cells
Result: negative
Method: US-EPA
Species: Mouse - male and female - Bone marrow
Result: negative
Remarks: (ECHA)

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Aspiration hazard

No data available

benzene

Acute toxicity

LD50 Oral - Rat - male - > 2.000 mg/kg

(OECD Test Guideline 401)

Symptoms: Nausea

LD50 Oral - Rat - male and female - 3.002 mg/kg

(OECD Test Guideline 401)

Symptoms: Risk of aspiration upon vomiting., Aspiration may cause pulmonary edema and pneumonitis.

Symptoms: mucosal irritations

LD50 Dermal - Rabbit - 13.630 mg/kg

Remarks: (IUCLID)

Skin corrosion/irritation

Skin - Rabbit

Result: irritating

(OECD Test Guideline 404)

Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irritating to eyes.

(OECD Test Guideline 405)

Remarks: (IUCLID)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

May cause genetic defects.

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster lung cells

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male - Bone marrow

Result: positive

Carcinogenicity

May cause cancer. Positive evidence from human epidemiological studies.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Acute oral toxicity - Nausea

Acute oral toxicity - Risk of aspiration upon vomiting., Aspiration may cause pulmonary edema and pneumonitis.

Acute inhalation toxicity - mucosal irritations

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

- Blood

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard

Aspiration may cause pulmonary edema and pneumonitis.

Toluene

Acute toxicity

LD50 Oral - Rat - male - 5.580 mg/kg

(Directive 67/548/EEC, Annex V, B.1.)

LC50 Inhalation - Rat - male - 4 h - 25,7 mg/l - vapor

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - male - > 5.000 mg/kg

Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: irritating - 4 h

(Regulation (EC) No. 440/2008, Annex, B.4)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(Regulation (EC) No. 440/2008, Annex, B.6)

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test

Test system: Mouse lymphoma test

Result: negative

Test Type: Ames test

Test system: *S. typhimurium*

Result: negative

Species: Rat - Bone marrow

Result: negative

Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

Inhalation - May cause drowsiness or dizziness. - Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

Inhalation - May cause damage to organs through prolonged or repeated exposure.

- Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard

Aspiration may cause pulmonary edema and pneumonitis.

Dichloromethane**Acute toxicity**

LD50 Oral - Rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Mouse - 4 h - 86 mg/l - vapor

Remarks: (ECHA)

Symptoms: Possible damages:, mucosal irritations

LD50 Dermal - Rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: Irritations - 4 h

(OECD Test Guideline 404)

Remarks: Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation

Remarks: (ECHA)

Remarks: Risk of corneal clouding.

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster ovary cells

Result: positive

Test Type: Ames test

Test system: Salmonella typhimurium

Result: positive

Method: OECD Test Guideline 474

Species: Mouse - male and female - Bone marrow

Result: negative

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause drowsiness or dizziness. - Central nervous system

Acute inhalation toxicity - Possible damages:, mucosal irritations

Specific target organ toxicity - repeated exposure

Aspiration hazard

No data available

Carbon tetrachloride

Acute toxicity

LD50 Oral - Rat - 2.350 mg/kg

Remarks: (RTECS)

LC50 Inhalation - Rat - 4 h - 8000 ppm - vapor

LD50 Dermal - Rabbit - > 20.000 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation - 24 h

(Draize Test)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation - 24 h

(Draize Test)

Respiratory or skin sensitization

- Mouse

Result: The product is a skin sensitizer, sub-category 1B.

(OECD Test Guideline 429)

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure.

- Liver, Kidney

Aspiration hazard

No data available

SECTION 12: Ecological information

12.1 Toxicity

Mixture

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

Components

Methanol

Toxicity to fish	flow-through test LC50 - <i>Lepomis macrochirus</i> (Bluegill) - 15.400,0 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	semi-static test EC50 - <i>Daphnia magna</i> (Water flea) - 18.260 mg/l - 96 h (OECD Test Guideline 202)
Toxicity to algae	static test ErC50 - <i>Pseudokirchneriella subcapitata</i> (green algae) - ca. 22.000,0 mg/l - 96 h (OECD Test Guideline 201)
Toxicity to bacteria	static test IC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)
Toxicity to fish(Chronic toxicity)	NOEC - <i>Oryzias latipes</i> (Orange-red killifish) - 7.900 mg/l - 200 h Remarks: (External MSDS)

(Z)-1,3-Dichloropropene

Toxicity to fish	semi-static test LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - 1,6 mg/l - 96 h (Regulation (EC) No. 440/2008, Annex, C.1)
Toxicity to daphnia and other aquatic invertebrates	static test LC50 - <i>Daphnia magna</i> (Water flea) - 1,4 mg/l - 48 h (Regulation (EC) No. 440/2008, Annex, C.2)
Toxicity to algae	static test ErC50 - <i>Scenedesmus capricornutum</i> (fresh water algae) - 3,1 mg/l - 72 h (Regulation (EC) No. 440/2008, Annex, C.3)
Toxicity to bacteria	static test EC50 - activated sludge - 279 mg/l - 10 min Remarks: (ECHA)

trichloroethylene

Toxicity to fish	flow-through test LC50 - <i>Jordanella floridae</i> - 28,3 mg/l - 96 h
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(US-EPA)

Toxicity to algae ErC50 - Chlamydomonas reinhardtii (green algae) - 36,5 mg/l - 72 h
Remarks: (ECHA)

Toxicity to bacteria

Toxicity to fish(Chronic toxicity) flow-through test NOEC - Jordanella floridae (flagfish) - 5,76 mg/l - 10 d
Remarks: (ECHA)

1,2-dibromoethane

Toxicity to fish static test LC50 - Oncorhynchus mykiss (rainbow trout) - 1,13 mg/l - 96 h
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 11,61 mg/l - 48 h
(OECD Test Guideline 202)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - 25,94 mg/l - 72 h
(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - activated sludge - > 1.000 mg/l
(OECD Test Guideline 209)

Toxicity to fish(Chronic toxicity) flow-through test NOEC - Oryzias latipes - 5,81 mg/l - 28 d
Remarks: (ECHA)

1,2,3-Trichloropropane

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 66,5 mg/l - 96 h
(US-EPA)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - ca. 20 mg/l - 48 h
(OECD Test Guideline 202)

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (green algae) - 49,6 mg/l - 72 h
(OECD Test Guideline 201)

static test NOEC - Pseudokirchneriella subcapitata (green algae) - 12,8 mg/l - 72 h
(OECD Test Guideline 201)

Toxicity to bacteria static test IC50 - Bacteria - 30 mg/l - 24 h
(ISO 9509)

Toxicity to fish(Chronic toxicity) flow-through test NOEC - Poecilia reticulata (guppy) - 4,6 mg/l - 268 d
Remarks: (ECHA)

Toxicity to daphnia semi-static test EC10 - Daphnia magna (Water flea) - 6 mg/l -

and other aquatic invertebrates(Chronic toxicity) 21 d (OECD Test Guideline 211)

1,2,3-trichlorobenzene

Toxicity to fish LC50 - *Gambusia affinis* (Mosquito fish) - 2,2 mg/l - 96,0 h
 Toxicity to daphnia and other aquatic invertebrates Immobilization EC50 - *Daphnia magna* (Water flea) - 1,45 mg/l - 48 h

Bromoform

Toxicity to fish static test LC50 - *Lepomis macrochirus* (Bluegill sunfish) - 29 mg/l - 96 h (US-EPA)
 Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - *Daphnia magna* (Water flea) - 46 mg/l - 48 h (US-EPA)
 Remarks: (ECHA)

Toxicity to algae static test ErC50 - *Pseudokirchneriella subcapitata* - 13 mg/l - 72 h (OECD Test Guideline 201)

static test NOEC - *Pseudokirchneriella subcapitata* - 2,8 mg/l - 72 h (OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)
 static test NOEC - activated sludge - < 10 mg/l - 3 h (OECD Test Guideline 209)

Bromodichloromethane

No data available

bromochloromethane

No data available

Tetrachlorethylene

Toxicity to fish flow-through test LC50 - *Oncorhynchus mykiss* (rainbow trout) - 5 mg/l - 96 h
 Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates EC50 - *Daphnia magna* (Water flea) - 7,50 mg/l - 48 h

Toxicity to algae ErC50 - *Chlamydomonas reinhardtii* (green algae) - 3,64 mg/l - 72 h
 Remarks: (ECHA)

Toxicity to fish(Chronic toxicity) flow-through test NOEC - *Jordanella floridae* - 1,99 mg/l - 10 d
Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) semi-static test NOEC - *Daphnia magna* (Water flea) - 0,51 mg/l - 28 d
Remarks: (ECHA)

1,1-Dichloroethene

Toxicity to fish flow-through test LC50 - *Pimephales promelas* (fathead minnow) - 108 mg/l - 96 h
Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - *Daphnia magna* (Water flea) - 37 mg/l - 48 h (OECD Test Guideline 202)
Remarks: (ECHA)

Toxicity to algae static test EC50 - *Chlamydomonas reinhardtii* (green algae) - 9,12 mg/l - 72 h
Remarks: (ECHA)

Remarks: (ECHA)

Toxicity to bacteria EC50 - *Pseudomonas putida* - > 2.000 mg/l - 17 h
Remarks: (IUCLID)

Chloroform

Toxicity to daphnia and other aquatic invertebrates static test EC50 - *Crassostrea gigas* - 152,5 mg/l - 48 h
Remarks: (ECHA)

Toxicity to algae static test ErC50 - *Chlamydomonas reinhardtii* (green algae) - 13,3 mg/l - 72 h
Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) semi-static test NOEC - *Daphnia magna* (Water flea) - 6,3 mg/l - 21 d
Remarks: (ECHA)

1,1,1-Trichloroethane

Toxicity to fish static test LC50 - *Pimephales promelas* (fathead minnow) - 52,8 mg/l - 96 h (US-EPA)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - *Daphnia magna* (Water flea) - > 530 mg/l - 48 h (US-EPA)

Toxicity to algae static test ErC50 - *Pseudokirchneriella subcapitata* (algae) - 41

	mg/l - 72 h (OECD Test Guideline 201)
	static test NOEC - <i>Pseudokirchneriella subcapitata</i> (green algae) - 7,8 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	EC50 - activated sludge - 360 mg/l - 30 min (OECD Test Guideline 209)
Toxicity to fish(Chronic toxicity)	flow-through test NOEC - <i>Cyprinus carpio</i> (Carp) - 7,7 mg/l - 14 d Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	semi-static test NOEC - <i>Daphnia magna</i> (Water flea) - 1,3 mg/l - 17 d Remarks: (ECHA)

1,1,1,2-Tetrachloroethane

Toxicity to fish	LC50 - <i>Lepomis macrochirus</i> (Bluegill) - 16,00 - 24,00 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - <i>Daphnia magna</i> (Water flea) - 17,00 - 30,00 mg/l - 48 h

1,2-Dichloropropane

Toxicity to fish	flow-through test LC50 - <i>Pimephales promelas</i> (fathead minnow) - 140 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	semi-static test EC50 - <i>Daphnia magna</i> (Water flea) - 2,7 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	static test NOEC - <i>Pseudokirchneriella subcapitata</i> - 7,95 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to fish(Chronic toxicity)	NOEC - <i>Pimephales promelas</i> (fathead minnow) - 6 - 11 mg/l - 28 Days (US-EPA)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	NOEC - <i>Daphnia magna</i> (Water flea) - 8,3 mg/l - 21 d (US-EPA)

cumene

Toxicity to fish	flow-through test LC50 - <i>Cyprinodon variegatus</i> (sheepshead minnow) - 4,7 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - <i>Daphnia magna</i> (Water flea) - 2,14 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae	static test ErC50 - <i>Desmodesmus subspicatus</i> (green algae) - 2,01 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	static test EC50 - activated sludge - > 2.000 mg/l - 3 h (OECD Test Guideline 209)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	semi-static test NOEC - <i>Daphnia magna</i> (Water flea) - 0,35 mg/l - 21 d (OECD Test Guideline 211)

sec-Butylbenzene

Toxicity to daphnia and other aquatic invertebrates	semi-static test EC50 - <i>Daphnia magna</i> (Water flea) - 0,6 mg/l - 48 h (OECD Test Guideline 202) Remarks: (in analogy to similar products)
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Toxicity to algae	static test ErC50 - <i>Pseudokirchneriella subcapitata</i> (green algae) - 0,42 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products)
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static test NOEC - *Pseudokirchneriella subcapitata* (green algae) - 0,26 mg/l - 72 h
(OECD Test Guideline 201)
Remarks: (in analogy to similar products)

4-chlorotoluene

Toxicity to fish	semi-static test LC50 - <i>Poecilia reticulata</i> (guppy) - 5,92 mg/l - 14 d Remarks: (ECHA)
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Toxicity to daphnia and other aquatic invertebrates	static test EC50 - <i>Ceriodaphnia dubia</i> (water flea) - 1,7 mg/l - 48 h (US-EPA)
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Toxicity to algae	EC50 - <i>Pseudokirchneriella subcapitata</i> (algae) - 6,1 mg/l - 72 h (OECD Test Guideline 201)
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Toxicity to bacteria	static test EC10 - <i>Pseudomonas putida</i> - > 25 mg/l - 18 h (DIN 38421 TEIL 8)
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Toxicity to fish(Chronic toxicity)	NOEC - <i>Danio rerio</i> (zebra fish) - 1,9 mg/l (OECD Test Guideline 210)
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Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	NOEC - <i>Daphnia magna</i> (Water flea) - 0,32 mg/l - 21 d (OECD Test Guideline 211)
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1,2-Dibromo-3-chloropropane

No data available

1,2-Dichloroethane

Toxicity to fish	flow-through test LC50 - Pimephales promelas (fathead minnow) - 136 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 160 mg/l - 48 h Remarks: (in soft water) (IUCLID)
Toxicity to algae	static test EC50 - Desmodesmus subspicatus (green algae) - 166 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	static test EC50 - activated sludge - 35.500 mg/l - 3 h (OECD Test Guideline 209)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	static test NOEC - Daphnia magna (Water flea) - 11 mg/l - 28 d Remarks: (ECHA)

2-chlorotoluene

Toxicity to fish	LC50 - Oryzias latipes (Orange-red killifish) - 7,7 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 0,7 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	ErC50 - Pseudokirchneriella subcapitata (green algae) - 8,44 mg/l - 72 h (OECD Test Guideline 201) EC10 - Pseudokirchneriella subcapitata (green algae) - 6,09 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	semi-static test NOEC - Daphnia magna (Water flea) - 0,313 mg/l - 21 d (OECD Test Guideline 211)

1,1-Dichloropropene

No data available

(E)-1,3-Dichloropropene

No data available

styrene

Toxicity to fish	flow-through test LC50 - Pimephales promelas (fathead minnow) - 10 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	flow-through test EC50 - Daphnia magna (Water flea) - 4,7 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 4,9 mg/l - 72 h (US-EPA)
Toxicity to bacteria	static test EC50 - activated sludge - ca. 500 mg/l - 30 min (OECD Test Guideline 209)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	semi-static test NOEC - Daphnia magna (Water flea) - 1,01 mg/l - 21 d (OECD Test Guideline 211)

p-Cymene

Toxicity to fish	static test LC50 - Cyprinodon variegatus (sheepshead minnow) - 48 mg/l - 96 h (OPPTS 850.1075)
Toxicity to daphnia and other aquatic invertebrates	semi-static test EC50 - Daphnia magna (Water flea) - 3,7 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	static test EC50 - Scenedesmus capricornutum (fresh water algae) - 4,03 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	static test NOEC - activated sludge - 100 mg/l - 28 d

1,1,2,2-tetrachloroethane

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 20,3 mg/l - 96 h Remarks: (ECOTOX Database)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 23 mg/l - 48 h Remarks: (ECOTOX Database)
Toxicity to algae	EC50 - Pseudokirchneriella subcapitata (green algae) - 76,9 mg/l - 72 h Remarks: (ECOTOX Database)
Toxicity to fish(Chronic toxicity)	LOEC - other fish - 7,23 mg/l - 10 d Remarks: (ECOTOX Database)

1,1,2-Trichloroethane

Toxicity to fish	LC50 - Lepomis macrochirus (Bluegill) - 40,00 mg/l - 96 h Remarks: (ECOTOX Database)
	LC50 - Pimephales promelas (fathead minnow) - 81,60 mg/l - 96 h Remarks: (ECOTOX Database)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 43,00 mg/l - 48 h Remarks: (ECOTOX Database)

Hexachlorobuta-1,3-diene

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 0,09 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia - 0,5 mg/l - 24 h
Toxicity to fish(Chronic toxicity)	LOEC - Pimephales promelas (fathead minnow) - 0,013 mg/l - 28 d

1,2-Dichlorobenzene

Toxicity to fish	flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 1,58 mg/l - 96 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Ceriodaphnia dubia (water flea) - 0,66 mg/l - 48 h (US-EPA)
Toxicity to algae	ErC50 - Pseudokirchneriella subcapitata (green algae) - 2,2 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	semi-static test EC50 - Daphnia magna (Water flea) - 0,55 mg/l - 14 d Remarks: (ECHA)

1,4-dichlorobenzene

Toxicity to fish	flow-through test LC50 - Salmo gairdneri - 1,12 mg/l - 96 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 0,7 mg/l - 48 h Remarks: (ECHA)
Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 1,6 mg/l - 96 h (US-EPA)
Toxicity to fish(Chronic toxicity)	flow-through test NOEC - Jordanella floridae - 0,2 - 0,23 mg/l - 14 d (OECD Test Guideline 210)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	semi-static test NOEC - Daphnia magna (Water flea) - 0,22 mg/l - 28 d Remarks: (ECHA)

1,2,4-trichlorobenzene

Toxicity to daphnia and other aquatic	EC50 - Daphnia magna (Water flea) - 1,4 mg/l - 48 h (OECD Test Guideline 202)
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invertebrates

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 1,4 mg/l - 96 h
(US-EPA)

Naphthalene

Toxicity to fish flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 1,6 mg/l - 96 h
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 2,16 mg/l - 48 h
(OECD Test Guideline 202)

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (green algae) - 2,96 mg/l - 4 h
(US-EPA)
Remarks: (ECHA)

Toxicity to fish(Chronic toxicity) flow-through test LC50 - Oncorhynchus kisutch (coho salmon) - 2,1 mg/l - 96 h
Remarks: (ECHA)

flow-through test NOEC - Oncorhynchus kisutch (coho salmon) - 0,37 mg/l - 40 Days
Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) static test NOEC - Daphnia pulex (Water flea) - 0,59 mg/l - 125 d
Remarks: (ECHA)

benzene

Toxicity to fish semi-static test LC50 - Oryzias latipes (Orange-red killifish) - > 100 mg/l - 96 h
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates semi-static test EC50 - Daphnia magna (Water flea) - > 1.000 mg/l - 48 h
(OECD Test Guideline 202)

semi-static test NOEC - Daphnia magna (Water flea) - > 1.000 mg/l - 48 h
(OECD Test Guideline 202)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 1.000 mg/l - 72 h
(OECD Test Guideline 201)
static test NOEC - Pseudokirchneriella subcapitata (green algae) - >= 1.000 mg/l - 72 h
(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - activated sludge - > 1.000 mg/l - 3 h
(OECD Test Guideline 209)

Toxicity to fish(Chronic toxicity)	flow-through test NOEC - Pimephales promelas (fathead minnow) - 0,8 mg/l - 32 d Remarks: (ECHA)
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Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	semi-static test LC50 - Daphnia magna (Water flea) - > 100 mg/l - 21 d (OECD Test Guideline 211)
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Toluene

Toxicity to fish	flow-through test LC50 - Oncorhynchus kisutch (coho salmon) - 5,5 mg/l - 96 h Remarks: (ECHA)
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Toxicity to daphnia and other aquatic invertebrates	EC50 - Ceriodaphnia dubia (water flea) - 3,78 mg/l - 48 h (US-EPA)
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Toxicity to bacteria	static test EC50 - Bacteria - 84 mg/l - 24 h Remarks: (ECHA)
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Toxicity to fish(Chronic toxicity)	flow-through test NOEC - Oncorhynchus kisutch (coho salmon) - 1,39 mg/l - 40 d Remarks: (ECHA)
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Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	NOEC - Ceriodaphnia dubia (water flea) - 0,74 mg/l - 7 d (US-EPA)
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Dichloromethane

Toxicity to fish	flow-through test LC50 - Pimephales promelas (fathead minnow) - 193,00 mg/l - 96 h Remarks: (ECHA)
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Toxicity to daphnia and other aquatic invertebrates	static test LC50 - Daphnia magna (Water flea) - 27 mg/l - 48 h (US-EPA)
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Toxicity to bacteria	static test EC50 - activated sludge - 2.590 mg/l - 40 min (OECD Test Guideline 209)
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Toxicity to fish(Chronic toxicity)	flow-through test LC50 - Pimephales promelas (fathead minnow) - 471 mg/l - 8 d Remarks: (ECHA)
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Carbon tetrachloride

Toxicity to fish	mortality LC50 - Danio rerio (zebra fish) - 24,3 mg/l - 96 h
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Toxicity to daphnia and other aquatic invertebrates	Immobilization EC50 - Daphnia magna (Water flea) - 35 mg/l - 48 h (OECD Test Guideline 202)
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Toxicity to algae	Growth inhibition EC50 - Algae - 20 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to fish(Chronic toxicity)	NOEC - Danio rerio (zebra fish) - 2,5 mg/l - 14 d
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	NOEC - Daphnia magna (Water flea) - 3,1 mg/l - 21 d

SECTION 13: Disposal considerations

13.1 Waste treatment methods

No data available

SECTION 14: Transport information

14.1 UN number

ADR/RID: 1230

IMDG: 1230

IATA: 1230

14.2 UN proper shipping name

ADR/RID: METHANOL, SOLUTION

IMDG: METHANOL, SOLUTION

IATA: Methanol, SOLUTION

14.3 Transport hazard class(es)

ADR/RID: 3 (6.1)

IMDG: 3 (6.1)

IATA: 3 (6.1)

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

Tunnel restriction code : (D/E)

Further information : No data available

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: mesitylene Bromoform
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: benzene
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: benzene 1,2-Dichloroethane 1,2-Dibromo-3-chloropropane cumene 1,2-Dichloropropane 1,2,3-Trichloropropane 1,2-dibromoethane trichloroethylene
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: benzene 1,2-Dibromo-3-chloropropane
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: 1,2-Dichloroethane 1,2,3-Trichloropropane trichloroethylene
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Chloroform
This product contains a substance listed on Annex XIV of the REACH Regulation (EC) Nr. 1907/2006.	
Listed substance / Sunset Date	: 1,2-Dichloroethane / 22.11.2017 trichloroethylene / 21.04.2016
After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.	
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	: Dichloromethane 1,1,1-Trichloroethane Carbon tetrachloride Tetrachlorethylene bromochloromethane
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: 1,1,2-Trichloroethane
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	: Hexachlorobuta-1,3-diene
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: 1,1,2,2-tetrachloroethane

(Annex XVII)

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : 1,1,1,2-Tetrachloroethane

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : 1,1-Dichloroethene

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Toluene

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : 1,2,4-trichlorobenzene

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Dichloromethane

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Methanol

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : benzene

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	H2	ACUTE TOXIC
	E2	ENVIRONMENTAL HAZARDS
	P5c	FLAMMABLE LIQUIDS
	H2	ACUTE TOXIC
	E2	ENVIRONMENTAL HAZARDS
	P5c	FLAMMABLE LIQUIDS
	22	Methanol

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements

H224	Extremely flammable liquid and vapor.
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H228	Flammable solid.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H360F	May damage fertility.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H420	Harms public health and the environment by destroying ozone in the upper atmosphere.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Classification of the mixture

Flam. Liq.2	H225
Acute Tox.3	H301
Acute Tox.3	H331
Acute Tox.3	H311
Muta.1B	H340
Carc.1A	H350
STOT SE1	H370
STOT RE2	H373
Aquatic Chronic2	H411
Ozone1	H420

Classification procedure:

Based on product data or assessment
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method

Further information

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture

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