

## Safety Data Sheet

# 6 Mix chlorinated hydrocarbons in alcohol

Version : V2.0.0.1

Report No. : BWQ9617-2016-MSDS-EP

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Revision Date : -



\*Prepared in accordance with EU REACH Regulation (REACH 1907/2006 with amendment 2020/878)

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

### 1.1 Product identifier

Product Name	6 Mix chlorinated hydrocarbons in alcohol
Cat No.	BWQ9617-2016
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable
REACH Registration Number	-
UFI	No information available

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

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

### 1.3 Details of the supplier of the Safety Data Sheet

Name of the company	Weiyel Inc
Address of the company	Hedian Light Industrial Park, Chengguan Town, Shangcheng County, Xinyang City, Henan Province, China
Post code	465350
Telephone number	010-58103678
Fax number	010-84840368
E-mail address	info@weiyel.com

### 1.4 Emergency telephone number

Emergency telephone number	010-58103678
Opening hours	24h

## 2 Hazards identification

### 2.1 CLP classification according to Regulation ( EC ) No. 1272/2008 with amendment 2023/707

Flammable liquids	Category 2
Acute Toxicity - Oral	Category 3
Acute Toxicity - Dermal	Category 3
Acute Toxicity - Inhalation	Category 3
Carcinogenicity	Category 1B
Specific target organ toxicity -	Category 1

single exposure	
Hazardous to the ozone layer	Category 1

## 2.2 Label elements

Hazard pictograms	
Signal word	<b>Danger</b>

## Hazard statements

H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin
H331	Toxic if inhaled
H350	May cause cancer
H370	Causes damage to organs
H420	Harms public health and the environment by destroying ozone in the upper atmosphere
EUH066	Repeated exposure may cause skin dryness or cracking

## Precautionary statements

### ◆ Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe gas/mist/vapour/spray.
P264	Wash hands and other parts of the body (if related) thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

### ◆ Response

P311	Call a POISON CENTER/ doctor.
P321	Specific treatment (see related instructions on the label).
P330	Rinse mouth.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.

<b>P361+P364</b>	Take off immediately all contaminated clothing and wash it before reuse.
<b>P370+P378</b>	Small fire: dry chemical, CO <sub>2</sub> or water spray; Large fire: dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.
<b>P303+P361+P353</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].

◆ Storage

<b>P405</b>	Store locked up.
<b>P403+P233</b>	Store in a well-ventilated place. Keep container tightly closed.
<b>P403+P235</b>	Store in a well-ventilated place. Keep cool.

◆ Disposal

<b>P501</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>P502</b>	Refer to manufacturer or supplier for information on recovery or recycling.

## 2.3 Other hazards

◆ Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Dichloromethane	Not PBT/vPvB
1,2-dichloroethane	Not PBT/vPvB
Chloroform	Not PBT/vPvB
1,1,1-trichloroethane	Insufficient information, temporarily unable to evaluate
Carbon tetrachloride	Not PBT/vPvB
1,1,2-trichloroethane	Insufficient information, temporarily unable to evaluate
Methanol	Not PBT/vPvB

◆ Results of endocrine disrupting properties assessment

Component	Results of endocrine disrupting properties assessment [according to (EU) No 2017/2100 or (EU) No 2018/605]
Dichloromethane	Insufficient information, temporarily unable to evaluate
1,2-dichloroethane	Insufficient information, temporarily unable to evaluate
Chloroform	Insufficient information, temporarily unable to evaluate
1,1,1-trichloroethane	Insufficient information, temporarily unable to evaluate
Carbon tetrachloride	Insufficient information, temporarily unable to evaluate
1,1,2-trichloroethane	Insufficient information, temporarily unable to evaluate
Methanol	Insufficient information, temporarily unable to evaluate

◆ Other

	Not applicable.
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## 3 Composition/information on ingredients

### 3.1 Substance

Not applicable

### 3.2 Mixture

Component	Weight % content(or range)	Classification according to Regulation ( EC ) No. 1272/2008 with amendment 2023/707 [CLP]	Specific Conc. Limits, M-factors
<b>Dichloromethane</b> CAS : 75-09-2 EC : 200-838-9 Index No. : 602-004-00-3	0.13	Carcinogenicity, Category 2, H351	-
<b>1,2-dichloroethane</b> CAS : 107-06-2 EC : 203-458-1 Index No. : 602-012-00-7	0.13	Flammable liquids, Category 2, H225; Acute Toxicity - Oral, Category 4, H302; Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Specific target organ toxicity - single exposure; respiratory tract irritation, Category 3, H335; Carcinogenicity, Category 1B, H350	-
<b>Chloroform</b> CAS : 67-66-3 EC : 200-663-8 Index No. : 602-006-00-4	0.13	Acute Toxicity - Oral, Category 4, H302; Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Acute Toxicity - Inhalation, Category 3, H331; Carcinogenicity, Category 2, H351; Reproductive toxicity, Category 2, H361; Specific target organ toxicity - repeated exposure, Category 1, H372	-
<b>1,1,1-trichloroethane</b> CAS : 71-55-6 EC : 200-756-3 Index No. : 602-013-00-2	0.13	Acute Toxicity - Inhalation, Category 4, H332; Hazardous to the ozone layer, Category 1, H420	-
<b>Carbon tetrachloride</b> CAS : 56-23-5 EC : 200-262-8 Index No. : 602-008-00-5	0.13	Acute Toxicity - Oral, Category 3, H301; Acute Toxicity - Dermal, Category 3, H311; Acute Toxicity - Inhalation, Category 3, H331; Carcinogenicity, Category 2, H351; Specific target organ toxicity - repeated exposure, Category 1, H372; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 3, H412; Hazardous to the ozone layer, Category 1, H420	H372:C ≥ 1% H373:0.2% ≤ C < 1%
<b>1,1,2-trichloroethane</b> CAS : 79-00-5 EC : 201-166-9 Index No. : 602-014-00-8	0.13	Acute Toxicity - Oral, Category 4, H302; Acute Toxicity - Dermal, Category 4, H312; Acute Toxicity - Inhalation, Category 4, H332; Carcinogenicity, Category 2, H351; Repeated exposure may cause skin dryness or cracking, EUH066	-
<b>Methanol</b> CAS : 67-56-1 EC : 200-659-6 Index No. : 603-001-00-X	99.22	Flammable liquids, Category 2, H225; Acute Toxicity - Oral, Category 3, H301; Acute Toxicity - Dermal, Category 3, H311; Acute Toxicity - Inhalation, Category 3, H331; Specific target organ toxicity - single exposure, Category 1, H370	H370:C ≥ 10% H371:3% ≤ C < 10%

## 4 First-aid measures

### 4.1 Description of first aid measures

#### General advice

Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.

<b>Eye contact</b>	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Skin contact</b>	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
<b>Ingestion</b>	Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention.
<b>Inhalation</b>	Fresh air, rest. Refer for medical attention.
<b>Protecting of first-aiders</b>	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

#### 4.2 Most important symptoms/effects, acute and delayed

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
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#### 4.3 Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

### 5 Fire-fighting measures

#### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Small fire: dry chemical, CO <sub>2</sub> or water spray; Large fire: dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.
<b>Unsuitable extinguishing media</b>	No information available.

#### 5.2 Specific hazards arising from the substance or mixture

1	May emit poisonous fumes on fire.
2	Development of hazardous combustion gases or vapor possible in the event of fire.
3	May expansion or decompose explosively when heated or involved in fire.

#### 5.3 Advice for firefighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

### 6 Accidental release measures

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

1	Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
2	Do not touch or walk through spilled material.
3	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
4	Use personal protective equipment, do not breathe gas/mist/vapour/spray.
5	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
6	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

## 6.2 Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

## 6.3 Methods and materials for containment and cleaning up

1	Do not touch or cross spills.
2	Cover with anti-solvent foam to reduce evaporation.
3	It is recommended that emergency personnel wear positive pressure self-contained breathing apparatus and wear anti-virus suits.
4	Spray water disperses the vapor and dilutes the liquid spill.
5	Do not touch broken containers and spills before putting on appropriate protective clothing.
6	Cut off the source of the leak as much as possible.
7	Keep leaks in a ventilated place.
8	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
9	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
10	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.

## 6.4 Reference to other sections

1	Personal Protective Equipment advice is contained in Section 8 of the SDS.
2	Disposal considerations advice is contained in Section 13 of the SDS.

# 7 Handling and storage

## 7.1 Precautions for safe handling

### ◆ Protective measures

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.

### ◆ Measures to prevent fire

1	Keep away from heat/sparks/open flames/ hot surfaces.
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### ◆ Measures to prevent aerosol and dust generation

1	Not applicable.
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### ◆ Advice on general occupational hygiene

1	Wash hands and face after using the substances.
2	Replace the contaminated clothing immediately.

## 7.2 Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

## 7.3 Specific end use(s)

1	In addition to use mentioned in the Section 1.2, unforeseen other specific end uses.
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## 8 Exposure controls/personal protection

### 8.1 Control parameters

#### ◆ Occupational exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
<b>Dichloromethane</b>	Japan - JSOH(2024–2025)	50	173	-	-
	Permissible exposure standards for workers in the workplace	50	174	75	217.5
	European Union	100	353	200	706
	France	50	178	100	356
	Germany (AGS)	50	180	100	360
	Germany (DFG)	50	180	100	360
<b>1,2-dichloroethane</b>	Japan - JSOH(2024–2025)	10	40	-	-
	Permissible exposure standards for workers in the workplace	10	40	15	60
	European Union	2	8.2	-	-
	France	2	8.2	-	-
	Italy	2	8.2	-	-
	United Kingdom	5	21	-	-
	<b>Chloroform</b>	Japan - JSOH(2024–2025)	3	14.7	-
Permissible exposure standards for workers in the workplace	-	-	-	-	
European Union	2	10	-	-	
France	2	10	-	-	
Germany (AGS)	0.5	2.5	1	5	
Germany (DFG)	0.5	2.5	1	5	
<b>1,1,1-trichloroethane</b>	Japan - JSOH(2024–2025)	200	1090	-	-
	Permissible exposure standards for workers in the workplace	350	1910	437.5	1910

	European Union	100	555	200	1110
	France	100	555	200	1110
	Germany (AGS)	100	550	100	550
	Germany (DFG)	100	550	100	550
<b>Carbon tetrachloride</b>	Japan - JSOH(2024–2025)	5	31	-	-
	Permissible exposure standards for workers in the workplace	2	13	4	19.5
	European Union	1	6.4	5	32
	France	1	6.4	5	32
	Germany (AGS)	0.5	3.2	1	6.4
	Germany (DFG)	0.5	3.2	1	6.4
	<b>1,1,2-trichloroethane</b>	Japan - JSOH(2024–2025)	10	55	-
Permissible exposure standards for workers in the workplace		10	55	15	82.5
Germany (AGS)		1	5.5	2	11
Germany (DFG)		1	5.5	2	11
Austria		10	55	50	275
Belgium		10	56	-	-
<b>Methanol</b>		Japan - JSOH(2024–2025)	200	260	-
	Permissible exposure standards for workers in the workplace	200	262	250	327.5
	European Union	200	260	-	-
	France	200	260	-	-
	Germany (AGS)	100	130	200	260
	Germany (DFG)	100	130	200	260

◆ Biological limit values

Component	Standard	Biological monitoring index	Biological limits value	Sampling time	Remark
<b>Dichloromethane</b>	SCOEL(EU)	COHb/blood	0.04	Not strictly regulated	
		methylene chloride/urine	0.3mg/L	Not strictly regulated	
		methylene chloride/blood	1.0mg/L	Not strictly regulated	

		Dichloromethane(Urine)	0.3mg/L	End of shift	
<b>1,1,1-trichloroethane</b>	USA -ACGIH	Methyl chloroform(EXA)	20ppm	Prior to last shift of work week	
		Methyl chloroform(Urine)	700µg/L	End of shift	
<b>Methanol</b>	USA -ACGIH	Methanol(Urine)	15mg/L	End of shift	

◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300 and GBZ/T 160 series standard Determination of toxic substances in workplace air.

◆ Derived No effect level (DNEL)

Component	Route of exposure	DNEL for Workers			
		Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
<b>Dichloromethane</b>	Inhalation	No data available	No data available	No data available	176 mg/m <sup>3</sup>
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
<b>1,2-dichloroethane</b>	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
<b>Chloroform</b>	Inhalation	No data available	No data available	2.5 mg/m <sup>3</sup>	2.5 mg/m <sup>3</sup>
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
<b>1,1,1-trichloroethane</b>	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
<b>Carbon tetrachloride</b>	Inhalation	No data available	No data available	No data available	1.29 mg/m <sup>3</sup>
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
<b>1,1,2-trichloroethane</b>	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
<b>Methanol</b>	Inhalation	No data available	No data available	130 mg/m <sup>3</sup>	130 mg/m <sup>3</sup>
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

◆ Predicted No Effect Concentration (PNEC)

Component	A	B	C	D	E	F	G	H
<b>Dichloromethane</b>	130 - 310 µg/L	31 - 130 µg/L	26 mg/L	163 - 2570 µg/kg sediment dw	163 - 260 µg/kg sediment dw	No hazard identified	173 - 330 µg/kg soil dw	No potential for bioaccumulation
<b>1,2-dichloroethane</b>	1.1 mg/L	110 µg/L	27.8 mg/L	11.1 mg/kg sediment dw	1.11 mg/kg sediment dw	3.4 µg/m <sup>3</sup>	1.8 mg/kg soil dw	8.33 mg/kg food
<b>Chloroform</b>	146 µg/L	15 µg/L	48 µg/L	450 µg/kg sediment dw	90 µg/kg sediment dw	No hazard identified	560 µg/kg soil dw	No potential for bioaccumulation
<b>1,1,1-trichloroethane</b>	130 µg/L	13 µg/L	No data available	No data available	No data available	No data available	No data available	No potential for bioaccumulation
<b>Carbon tetrachloride</b>	220 µg/L	22 µg/L	30 mg/L	No data available	No data available	No hazard identified	No data available	222 µg/kg food
<b>Methanol</b>	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No potential for bioaccumulation

**Note 1:**

A: Freshwater; B: Seawater; C: Sewage treatment plant; D: Sediment (freshwater); E: Sediment (seawater); F: Air; G: Soil; H: Secondary poisoning(Hazard for Predators).

**Note 2:**

The PNEC values of the remaining components not shown in the product are not available yet.

## 8.2 Exposure controls

### 8.2.1 Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

### 8.2.2 Personal protection equipment

<b>General requirement</b>	
<b>Eye protection</b>	Must wear appropriate safety goggles.
<b>Hand protection</b>	Must wear anti static chemical protective gloves.
<b>Respiratory protection</b>	Must wear appropriate personal dust proof gas mask.
<b>Skin and body protection</b>	Must wear anti static chemical protective clothing and anti static shoes.

### 8.2.3 Environmental exposure controls

<b>Environmental exposure controls</b>	No information available
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## 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	clear or yellow liquid
Colour	clear or yellow liquid
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	-98 ( Methanol )
Initial boiling point and boiling range(°C)	65 ( Methanol )
Flash point(Closed cup,°C)	9 ( Methanol )
Evaporation rate	No information available
Flammability	No information available
Upper/lower explosive limits[%(v/v)]	Upper limit : 50 ( Methanol ) ; Lower limit : 6 ( Methanol )
Vapor pressure	12.9 kPa ( 20°C,Methanol )
Vapor density(Air = 1)	1.1 ( Methanol )
Relative density(Water=1)	0.79 ( 20°C,Methanol )
Solubility	Miscible with water ( Methanol )
n-octanol/water partition coefficient	-0.74 ( Methanol )
Auto-ignition temperature(°C)	440 ( Methanol )
Decomposition temperature(°C)	No information available
Kinematic viscosity	0.544 mPa ( 25°C,Methanol )
Explosive properties	No information available
Oxidizing properties	No information available
Particle characteristics	Not applicable

### 9.2 Other information

#### 9.2.1 Information with regard to physical hazard classes

Information with regard to physical hazard classes	No information available
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#### 9.2.2 Other safety characteristics

Other safety characteristics	No information available
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## 10 Stability and reactivity

### Stability and reactivity

10.1 Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
10.2 Chemical stability	Stable under proper operation and storage conditions.
10.3 Possibility of hazardous reactions	Reactions with metals form metal organic compounds. In contact with metals, oxidants, triethyl aluminium, amines, boranes and their derivatives may cause an explosion severely. In contact with oxidants causes severe reactions, and may cause a fire or explosion.
10.4 Conditions to avoid	Incompatible materials, heat, flame and spark.

<b>10.5 Incompatible materials</b>	Metal, oxidantss and alkali. Borane class and its derivatives, amines, metals, oxidants, triethyl aluminium, calcium and ethylene. Oxidants, alkali metals, alkaline earth metals and aluminum.
<b>10.6 Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 with amendment 2023/707

6 Mix chlorinated hydrocarbons in alcohol	
<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met
<b>Serious eye damage/irritation</b>	Based on available data, the classification criteria are not met
<b>Skin sensitization</b>	Based on available data, the classification criteria are not met
<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met
<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met
<b>STOT-single exposure</b>	Causes damage to organs(Category 1)
<b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met

#### Acute toxicity

Component	LD <sub>50</sub> (oral)	LD <sub>50</sub> (dermal)	LC <sub>50</sub> (inhalation,4h)
<b>Methanol</b>	5628mg/kg(Rat)	15800mg/kg(Rabbit)	83.867mg/L(Rat)
<b>Dichloromethane</b>	1600mg/kg(Rat)	No information available	No information available
<b>1,2-dichloroethane</b>	670mg/kg(Rat)	2800mg/kg(Rabbit)	No information available
<b>1,1,1-trichloroethane</b>	9600mg/kg(Rat)	No information available	98.209mg/L(Rat)
<b>Carbon tetrachloride</b>	2350mg/kg(Rat)	> 20000mg/kg(Rabbit)	50.330mg/L(Rat)
<b>Chloroform</b>	695mg/kg(Rat)	> 20000mg/kg(Rabbit)	47.702mg/L(Rat)
<b>1,1,2-trichloroethane</b>	836mg/kg(Rat)	5350mg/kg(Rabbit)	No information available

#### Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
<b>Dichloromethane</b>	Category 2A	Category R
<b>1,2-dichloroethane</b>	Category 2B	Category R
<b>Chloroform</b>	Category 2B	Category R
<b>1,1,1-trichloroethane</b>	Category 2A	Not Listed
<b>Carbon tetrachloride</b>	Category 2B	Category R
<b>1,1,2-trichloroethane</b>	Category 3	Not Listed
<b>Methanol</b>	Not Listed	Not Listed

#### 11.2 Information on other hazards

##### 11.2.1 Endocrine disrupting properties

Component	Endocrine disrupting properties
Dichloromethane	No information available
1,2-dichloroethane	No information available
Chloroform	No information available
1,1,1-trichloroethane	No information available
Carbon tetrachloride	No information available
1,1,2-trichloroethane	No information available
Methanol	No information available

### 11.2.2 Other Information

Other Information	See Section 11.1

## 12 Ecological information

### 12.1 Toxicity

#### Acute aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
Methanol	LC <sub>50</sub> : 24000mg/L (96h)(Fish)	EC <sub>50</sub> : 24500mg/L (48h)(Crustaceans)	No information available
Dichloromethane	LC <sub>50</sub> : 193mg/L (96h)(Fish)	EC <sub>50</sub> : 1470mg/L (48h)(Crustaceans)	No information available
1,2-dichloroethane	LC <sub>50</sub> : 136mg/L (96h)(Fish)	EC <sub>50</sub> : 99mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 230mg/L (72h)(Algae)
1,1,1-trichloroethane	LC <sub>50</sub> : 42.3mg/L (96h)(Fish)	EC <sub>50</sub> : 11.2mg/L (48h)(Crustaceans)	No information available
Carbon tetrachloride	LC <sub>50</sub> : 7.6mg/L (96h)(Fish)	EC <sub>50</sub> : 8.1mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 0.46mg/L (72h)(Algae)
Chloroform	LC <sub>50</sub> : > 110mg/L (96h)(Fish)	No information available	No information available
1,1,2-trichloroethane	LC <sub>50</sub> : 40mg/L (96h)(Fish)	EC <sub>50</sub> : 79.5mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 200mg/L (96h)(Algae)

#### Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
1,2-dichloroethane	NOEC : 41mg/L(Fish)	NOEC : 1.0mg/L(Crustaceans)	NOEC : 55mg/L(Algae)
Carbon tetrachloride	No information available	NOEC : 0.49mg/L(Crustaceans)	NOEC : 0.12mg/L(Algae)

### 12.2 Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
1,1,1-trichloroethane	High(Half-life = 546 days)	High(Half-life = 2247.04 days)
1,1,2-trichloroethane	High(Half-life = 730 days)	Medium(Half-life = 81.5 days)
Methanol	Low	Low

### 12.3 Bioaccumulative potential

Component	Bioaccumulative potential	Comments
1,1,1-trichloroethane	Low	BCF=9
1,1,2-trichloroethane	Low	BCF=17
Methanol	Low	BCF=10

### 12.4 Mobility in soil

Component	log K <sub>oc</sub>	Remark
Dichloromethane	1.67	20 °C
Chloroform	2.27	20 °C
1,1,1-trichloroethane	0.34	20 °C
Carbon tetrachloride	2.06	20 °C
1,1,2-trichloroethane	1.831	
Methanol	0.000	

### 12.5 Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Dichloromethane	Not PBT/vPvB
1,2-dichloroethane	Not PBT/vPvB
Chloroform	Not PBT/vPvB
1,1,1-trichloroethane	Insufficient information, temporarily unable to evaluate
Carbon tetrachloride	Not PBT/vPvB
1,1,2-trichloroethane	Insufficient information, temporarily unable to evaluate
Methanol	Not PBT/vPvB

### 12.6 Endocrine disrupting properties

Component	Endocrine disrupting properties
Dichloromethane	No information available
1,2-dichloroethane	No information available
Chloroform	No information available
1,1,1-trichloroethane	No information available
Carbon tetrachloride	No information available
1,1,2-trichloroethane	No information available
Methanol	No information available

### 12.7 Other adverse effects

No information available
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## 13 Disposal considerations

**13.1 Waste treatment methods**

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

**14** Transport information**Label and Mark**

Transporting Label	
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**IMDG-CODE**

14.1 UN number	1593
14.2 UN proper shipping name	DICHLOROMETHANE
14.3 Transport hazard class	6.1
14.4 Packing group	III
14.5 Environmental hazards (Yes or no)	No

**IATA-DGR**

14.1 UN number	1593
14.2 UN proper shipping name	DICHLOROMEETHANE
14.3 Transport hazard class	6.1
14.4 Packing group	III
14.5 Environmental hazards (Yes or no)	No

**UN-ADR**

14.1 UN number	1593
14.2 UN proper shipping name	DICHLOROMETHANE
14.3 Transport hazard class	6.1
14.4 Packing group	III
14.5 Environmental hazards (Yes or no)	No

**Special precautions for user**

	Transit should be anti-exposure, rain, high temperature. Strictly prohibited shipping or transportation with acids, alkalis, oxidants, food and food additives etc. Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.
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**Maritime transport in bulk according to IMO instruments**

- ◆ Transport in bulk according to Annex II of MARPOL and the IBC code

	Not Available
◆ Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code	
	Not Available
◆ Transport in bulk in accordance with the IGC Code	
	Not Available

## 15 Regulatory information

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

#### International chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M
Dichloromethane	√	√	√	√	√	√	√	√	√	√	√	√	√
1,2-dichloroethane	√	√	√	√	√	√	√	√	√	√	√	√	√
Chloroform	√	√	√	√	√	√	√	√	√	√	√	√	√
1,1,1-trichloroethane	√	√	√	√	√	√	√	√	√	√	√	√	√
Carbon tetrachloride	√	√	√	√	√	√	√	√	√	√	√	√	√
1,1,2-trichloroethane	√	√	√	√	√	√	√	√	√	√	√	√	√
Methanol	√	√	√	√	√	√	√	√	√	√	√	√	√

- [A] China Inventory of Existing Chemical Substances(IECSC)  
 [B] European Inventory of Existing Commercial Chemical Substances(EC inventory)  
 [C] United States Toxic Substances Control Act Inventory(TSCA)  
 [D] Canadian Domestic Substances List(DSL)  
 [E] New Zealand Inventory of Chemicals(NZIoC)  
 [F] Philippines Inventory of Chemicals and Chemical Substances(PICCS)  
 [G] Korea Existing Chemicals Inventory(KECL)  
 [H] Australian. Inventory of Industrial Chemical (AIICS)  
 [I] Japan Inventory of Existing & New Chemical Substances(ENCS)  
 [J] Thailand Existing Chemicals Inventory(TECI)  
 [K] Mexico National Inventory of Chemical Substances (INSQ)  
 [L] Russia Inventory of Existing Substances (DRAFT)  
 [M] Inventory of Existing Chemical Substances in Taiwan, China (TCSI)

#### List of Chemical Substances under International Conventions

Component	A	B	C
Dichloromethane	×	×	×
1,2-dichloroethane	×	×	√
Chloroform	×	×	×
1,1,1-trichloroethane	√	×	×
Carbon tetrachloride	√	×	×
1,1,2-trichloroethane	×	×	×
Methanol	×	×	×

- [A] The Montreal Protocol on Substances that Deplete the Ozone Layer  
 [B] Stockholm Convention on Persistent Organic Pollutants (POPs)  
 [C] Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade

## European chemical inventory

Component	A	B	C	D	E	F	G	H	I
Dichloromethane	×	×	✓	✓	✓	✓	✓	×	×
1,2-dichloroethane	✓	✓	✓	✓	✓	×	✓	×	×
Chloroform	×	×	✓	✓	✓	×	✓	×	×
1,1,1-trichloroethane	×	×	×	✓	✓	×	×	×	×
Carbon tetrachloride	×	×	×	✓	✓	✓	×	×	×
1,1,2-trichloroethane	×	×	✓	✓	✓	×	×	×	×
Methanol	×	×	✓	✓	✓	✓	×	×	×

[A] Candidate list of Substances of Very High Concern for authorization under EU REACH regulation

[B] Substances requiring authorisation under EU REACH regulation

[C] Substances restricted under EU REACH

[D] Pre-registered substances under EU REACH

[E] Registered substances under EU REACH

[F] Substance Evaluation – CoRAP under EU REACH

[G] List of priority substances under EU water policy ( Directive 2455/2001/EC )

[H] Substances subject to POPs Regulation

[I] Substances proposed as POPs

Note:

“✓” Indicates that the substance included in the regulations.

“×” No data or not included in the regulations.

## German water hazard class(WGK)

Component	WGK	Remark
Dichloromethane	WGK 2	
1,2-dichloroethane	WGK 3	
Chloroform	WGK 3	
1,1,1-trichloroethane	WGK 3	
Carbon tetrachloride	WGK 3	
1,1,2-trichloroethane	WGK 3	
Methanol	WGK 2	

【WGK 1】 slightly hazardous to water

【WGK 2】 obviously hazardous to water

【WGK 3】 highly hazardous to water

【nwg】 non-hazardous to water

【awg】 hazardous to water in general

## German technical instructions on air quality control(TA LUFT)

Component	TA LUFT	Remark
Dichloromethane	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas: Mass flow: 0,10 kg/hr or Mass conc.: 20 mg/m <sup>3</sup>	
1,2-dichloroethane	Chapter 5.2.7.1.1 Carcinogenic substances. Class III. As minimum	

	requirement, the following values are in all not allowed to be exceeded in the exhaust gas: Mass flow: 2,5 g/hr or Mass conc.: 1 mg/m <sup>3</sup>	
<b>Chloroform</b>	Chapter 5.2.7.1.1 Carcinogenic Substances The substance must be assigned to the class (I, II or III) whose substances have the nearest potency. We can not accomplish this evaluation due to insufficiency of data. Carcinogenic substances not mentioned by name and for which no information on potency is available should be assigned to Class I as a precautionary measure.	
<b>1,1,1-trichloroethane</b>	Chapter 5.2.5 Organic Substances. Class II. The following values are in all not allowed to be exceeded in the exhaust gas: Mass flow: 0,50 kg/hr or Mass conc.: 0,10 g/m <sup>3</sup>	
<b>Carbon tetrachloride</b>	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas: Mass flow: 0,10 kg/hr or Mass conc.: 20 mg/m <sup>3</sup>	
<b>1,1,2-trichloroethane</b>	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas: Mass flow: 0,10 kg/hr or Mass conc.: 20 mg/m <sup>3</sup>	
<b>Methanol</b>	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas: Mass flow: 0,10 kg/hr or Mass conc.: 20 mg/m <sup>3</sup>	

### German technical rules for hazardous substances (TRGS)

Component	TRGS	Remark
<b>Dichloromethane</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 500 TRGS 509 TRGS 510	
<b>1,2-dichloroethane</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 401 TRGS 410 TRGS 500 TRGS 509 TRGS 510 TRGS 800 TRGS 720 TRGS 721 TRGS 722 TRGS 723 TRGS 724	
<b>Chloroform</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 410 TRGS 500 TRGS 509 TRGS 510	
<b>1,1,1-trichloroethane</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 500 TRGS 509 TRGS 510	
<b>Carbon tetrachloride</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 500 TRGS 509 TRGS 510	

<b>1,1,2-trichloroethane</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 500 TRGS 509 TRGS 510	
<b>Methanol</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 500 TRGS 509 TRGS 510 TRGS 800 TRGS 720 TRGS 721 TRGS 722 TRGS 723 TRGS 724	

## 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16 Other information

### Information on revision

<b>Creation Date</b>	2026/01/16
<b>Revision Date</b>	-
<b>Reason for revision</b>	-

### Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

### Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC <sub>50</sub>	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD <sub>50</sub>	Lethal Dose 50%	NTP	National Toxicology Program
EC <sub>50</sub>	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC <sub>x</sub>	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P <sub>ow</sub>	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor		

### Disclaimer

This Safety Data Sheet (SDS) was prepared according to REACH Regulation. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.