

## Safety Data Sheet

# 29 Mix chlorobenzenes, chlorinated toluenes in dichloromethane



Version : V2.0.0.1

Report No. : BWQ0394-2016-MSDS-US

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Revision Date : -

\*Prepared according to American OSHA HCS-2024 (29 CFR 1910.1200)

## 1 Identification

### Product identifier

Product Name	29 Mix chlorobenzenes, chlorinated toluenes in dichloromethane
Cat No.	BWQ0394-2016
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

### Recommended use of the product and restrictions on use

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

### 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

### Emergency phone number

Emergency phone number	010-58103678
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## 2 Hazard(s) identification

### Hazard classification according to 29 CFR 1910.1200

Acute Toxicity - Oral	Category 4
Carcinogenicity	Category 2

### Label elements

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

**Hazard statements**

H302	Harmful if swallowed
H351	Suspected of causing cancer

**Precautionary statements**

## ◆ Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
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.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

## ◆ Response

P330	Rinse mouth.
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## ◆ Storage

P405	Store locked up.
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## ◆ Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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**Other hazards**

	Not applicable.
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**Hazard description**

## ◆ Physical and chemical hazards

	No information available
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## ◆ Health hazards

Inhaled	Dizziness. Drowsiness. Headache. Nausea. Weakness. Unconsciousness. Death.
Ingestion	Abdominal pain. (Further see Inhalation).
Skin Contact	Dry skin. Redness. Burning sensation.
Eye	Redness. Pain. Severe deep burns.

## ◆ Environmental hazards

	Please refer to 12th chapter of SDS.
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**3 Composition/information on ingredients****Substance/mixture**

	Mixture
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Component	CAS No.	EC No.	Concentration (wt, %)
4-chlorotoluene	106-43-4	203-397-0	0.075
2,3,6-trichlorotoluene	2077-46-5	218-202-4	0.075
2-chlorotoluene	95-49-8	202-424-3	0.075

<b>2,3,4,6-Tetrachlorotoluene</b>	875-40-1	-	0.075
<b>3,4-dichlorotoluene</b>	95-75-0	202-447-9	0.075
<b>1,2-dichlorobenzene</b>	95-50-1	202-425-9	0.075
<b>Hexachlorobenzene</b>	118-74-1	204-273-9	0.075
<b>2,3,4,5-Tetrachlorotoluene</b>	1006-32-2	-	0.075
<b>1,2,4,5-tetrachlorobenzene</b>	95-94-3	202-466-2	0.075
<b>3-chlorotoluene</b>	108-41-8	203-580-5	0.075
<b>1,2,3,5-tetrachlorobenzene</b>	634-90-2	211-217-7	0.075
<b>2,3,5,6-Tetrachlorotoluene</b>	1006-31-1	-	0.075
<b>2,4-dichlorotoluene</b>	95-73-8	202-445-8	0.075
<b>2,3-dichlorotoluene</b>	32768-54-0	251-203-8	0.075
<b>2,5-dichlorotoluene</b>	19398-61-9	243-032-2	0.075
<b>1,3-dichlorobenzene</b>	541-73-1	208-792-1	0.075
<b>2,4,5-trichlorotoluene</b>	6639-30-1	229-644-2	0.075
<b>1,2,4-trichlorobenzene</b>	120-82-1	204-428-0	0.075
<b>2,6-dichlorotoluene</b>	118-69-4	204-269-7	0.075
<b>1,3,5-trichlorobenzene</b>	108-70-3	203-608-6	0.075
<b>1,2,3,4-tetrachlorobenzene</b>	634-66-2	211-214-0	0.075
<b>1,2,3-trichlorobenzene</b>	87-61-6	201-757-1	0.075
<b><math>\alpha</math>-chlorotoluene</b>	100-44-7	202-853-6	0.075
<b><math>\alpha,\alpha,\alpha</math>-trichlorotoluene</b>	98-07-7	202-634-5	0.075
<b><math>\alpha,\alpha,\alpha,4</math>-tetrachlorotoluene</b>	5216-25-1	226-009-1	0.075
<b>Chlorobenzene</b>	108-90-7	203-628-5	0.075
<b>1,2-dichlorobenzene</b>	95-50-1	202-425-9	0.075
<b>2,3,4,5,6-Pentachlorotoluene</b>	877-11-2	-	0.075
<b>Pentachlorobenzene</b>	608-93-5	210-172-0	0.075
<b>Dichloromethane</b>	75-09-2	200-838-9	97.825

## 4 First-aid measures

### Description of first aid measures

<b>General advice</b>	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 and then wash skin with water and soap.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink. Rest.
<b>Inhalation</b>	Fresh air, rest. Artificial respiration may be needed. 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.

**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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**Indication of any immediate medical attention and special treatment needed**

1	Treat symptomatically.
2	Symptoms may be delayed.

**5 Fire-fighting measures****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.

**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 expand or decompose explosively when heated or involved in fire.

**Special protective equipment and precautions for fire-fighters**

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****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.

**Environmental precautions**

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

**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.

## 7 Handling and storage

### Precautions for safe handling

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.
4	Keep away from heat/sparks/open flames/ hot surfaces.

### 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.

## 8 Exposure controls/personal protection

### 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>
4-chlorotoluene	Finland	50	260	75	390
	Latvia	-	10	-	-
	Romania	30	150	50	250
2-chlorotoluene	Permissible exposure standards for workers in the workplace	50	259	75	323.75
	Australia	50	259	-	-
	Canada - Ontario	50	-	-	-
	New Zealand	50	259	-	-
	USA - ACGIH	50	-	-	-
	USA - NIOSH	50	250	75	375
1,2-dichlorobenzene	Japan - JSOH(2024-2025)	25	150	-	-
	Permissible exposure	-	-	-	-

	standards for workers in the workplace				
	Australia	25	150	50	301
	Canada - Ontario	25	-	50	-
	European Union	20	122	50	306
	New Zealand	10	61	20	122
<b>Hexachlorobenzene</b>	Canada - Ontario	-	0.002	-	-
	USA - ACGIH	-	0.002	-	-
	Belgium	-	0.002	-	-
	Canada - Québec	-	0.025	-	-
	Denmark	-	0.025	-	0.05
	Finland	-	0.002	-	-
<b>3-chlorotoluene</b>	Finland	50	260	75	390
<b>2,4-dichlorotoluene</b>	Austria	5	30	20	120
	Germany (AGS)	1.3	8	2.6	16
<b>1,3-dichlorobenzene</b>	Austria	3	20	12	80
	Germany (AGS)	2	12	4	24
	Germany (DFG)	2	12	4	24
	Hungary	-	12	-	24
	Latvia	-	20	-	-
	Switzerland	2	12	4	24
<b>1,2,4-trichlorobenzene</b>	Permissible exposure standards for workers in the workplace	-	-	-	-
	Australia	-	-	5	37
	European Union	2	15.1	5	37.8
	New Zealand	-	-	5	37
	USA - NIOSH	-	-	5	40
	Austria	2	15.1	5	37.8
<b>1,3,5-trichlorobenzene</b>	Denmark	5	37	10	74
	Finland	5	38	10	75
	Germany (DFG)	0.5	0.38	1	0.76
	Poland	-	15	-	30
<b>1,2,3-trichlorobenzene</b>	Canada - Ontario	-	-	5	-
	Denmark	5	37	10	76
	Finland	5	38	10	75
	Germany (DFG)	0.5	0.38	1	0.76
	Poland	-	15	-	30

<b><math>\alpha</math>-chlorotoluene</b>	Permissible exposure standards for workers in the workplace	1	5.2	2	10.4
	Australia	1	5.2	-	-
	Canada - Ontario	1	-	-	-
	New Zealand	1	5.2	-	-
	USA - ACGIH	1	-	-	-
	USA - NIOSH	-	-	1	5
<b><math>\alpha,\alpha,\alpha</math>-trichlorotoluene</b>	Canada - Ontario	-	-	0.1	-
	Austria	0.012	0.1	0.048	0.4
	Belgium	-	-	0.1	0.81
	Canada - Québec	-	-	0.1	0.8
	Finland	0.012	-	-	-
	Germany (AGS)	0.0018	0.015	0.0144	0.12
<b>Chlorobenzene</b>	Japan - JSOH(2024–2025)	10	46	-	-
	Permissible exposure standards for workers in the workplace	75	345	112.5	431.25
	Australia	10	46	-	-
	Canada - Ontario	10	-	-	-
	European Union	5	23	15	70
	New Zealand	10	46	-	-
<b>1,2-dichlorobenzene</b>	Japan - JSOH(2024–2025)	25	150	-	-
	Permissible exposure standards for workers in the workplace	-	-	-	-
	Australia	25	150	50	301
	Canada - Ontario	25	-	50	-
	European Union	20	122	50	306
	New Zealand	10	61	20	122
<b>Dichloromethane</b>	Japan - JSOH(2024–2025)	50	173	-	-
	Permissible exposure standards for workers in the workplace	50	174	75	217.5
	Australia	50	174	-	-

	Canada - Ontario	50	-	-	-
	European Union	100	353	200	706
	New Zealand	50	174	-	-

### 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.

### Personal protection equipment

General requirement	
Eye protection	Must wear appropriate safety goggles.
Hand protection	Must wear appropriate chemical protective gloves.
Respiratory protection	Must wear appropriate personal respiratory protective equipment.
Skin and body protection	Must wear appropriate chemical protective clothing and chemical resistant shoes.

## 9 Physical and chemical properties and safety characteristics

### Physical and chemical properties

Appearance (physical state, color, etc.)	colorless liquid
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	-97 ( Dichloromethane )
Initial boiling point and boiling range(°C)	40 ( Dichloromethane )
Flash point(Closed cup,°C)	No information available
Evaporation rate	No information available
Flammability	No information available
Upper/lower explosive limits[%(v/v)]	Upper limit : 22 ( Dichloromethane ); Lower limit : 13 ( Dichloromethane )
Vapor pressure	47.4kPa ( 20°C,Dichloromethane )
Vapor density(Air = 1)	2.9 ( Dichloromethane )
Relative density(Water=1)	1.3 ( 20°C,Dichloromethane )
Solubility	20g/l ( 20°C,Dichloromethane )
n-octanol/water partition coefficient	1.25 ( Dichloromethane )
Auto-ignition temperature(°C)	605 ( Dichloromethane )
Decomposition temperature(°C)	No information available
Kinematic viscosity	No information available

## 10 Stability and reactivity

### Stability and reactivity

<b>Reactivity</b>	Contact with incompatible substances can cause decomposition or other chemical reactions.
<b>Chemical stability</b>	Stable under proper operation and storage conditions.
<b>Possibility of hazardous reactions</b>	Reactions with metals form metal organic compounds.
<b>Conditions to avoid</b>	Incompatible materials, heat, flame and spark.
<b>Incompatible materials</b>	Metal, oxidantss and alkali.
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 Toxicological information

### Acute toxicity

Component	LD <sub>50</sub> (oral)	LD <sub>50</sub> (dermal)	LC <sub>50</sub> (inhalation,4h)
1,2-dichlorobenzene	500mg/kg(Rat)	> 10000mg/kg(Rabbit)	No information available
Pentachlorobenzene	1080mg/kg(Rat)	> 2500mg/kg(Rat)	No information available
α-chlorotoluene	1231mg/kg(Rat)	No information available	No information available
1,2,4,5-tetrachlorobenzene	1500mg/kg(Rat)	No information available	No information available
2-chlorotoluene	3900mg/kg(Rat)	No information available	No information available
1,2,4-trichlorobenzene	756mg/kg(Rat)	6139mg/kg(Rat)	No information available
1,3,5-trichlorobenzene	800mg/kg(Rat)	No information available	No information available
2,3,6-trichlorotoluene	2000mg/kg(Mouse)	No information available	No information available
α,α,α-trichlorotoluene	6000mg/kg(Rat)	4000mg/kg(Rabbit)	0.53mg/L(Rat)
α,α,α,4-tetrachlorotoluene	820mg/kg(Rat)	> 2000mg/kg(Rabbit)	No information available
1,2,3,5-tetrachlorobenzene	1727mg/kg(Rat)	No information available	No information available
Hexachlorobenzene	10000mg/kg(Rat)	10000mg/kg(Rat)	No information available
Dichloromethane	1600mg/kg(Rat)	No information available	No information available
1,2,3-trichlorobenzene	1830mg/kg(Rat)	No information available	No information available
2,4-dichlorotoluene	2400mg/kg(Rat)	No information available	No information available
Chlorobenzene	1110mg/kg(Rat)	No information available	No information available
1,2-dichlorobenzene	500mg/kg(Rat)	> 10000mg/kg(Rabbit)	No information available
1,2,3,4-tetrachlorobenzene	1167mg/kg(Rat)	No information available	No information available
4-chlorotoluene	2100mg/kg(Rat)	No information available	No information available

### Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP	OSHA Carcinogen List
4-chlorotoluene	Not Listed	Not Listed	Not Listed

<b>2,3,6-trichlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>2-chlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>2,3,4,6-Tetrachlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>3,4-dichlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>1,2-dichlorobenzene</b>	Category 3	Not Listed	Not Listed
<b>Hexachlorobenzene</b>	Category 2B	Category R	Not Listed
<b>2,3,4,5-Tetrachlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>1,2,4,5-tetrachlorobenzene</b>	Not Listed	Not Listed	Not Listed
<b>3-chlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>1,2,3,5-tetrachlorobenzene</b>	Not Listed	Not Listed	Not Listed
<b>2,3,5,6-Tetrachlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>2,4-dichlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>2,3-dichlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>2,5-dichlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>1,3-dichlorobenzene</b>	Category 3	Not Listed	Not Listed
<b>2,4,5-trichlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>1,2,4-trichlorobenzene</b>	Not Listed	Not Listed	Not Listed
<b>2,6-dichlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>1,3,5-trichlorobenzene</b>	Not Listed	Not Listed	Not Listed
<b>1,2,3,4-tetrachlorobenzene</b>	Not Listed	Not Listed	Not Listed
<b>1,2,3-trichlorobenzene</b>	Not Listed	Not Listed	Not Listed
<b>α-chlorotoluene</b>	Category 2A(Remark 1)	Not Listed	Not Listed
<b>α,α,α-trichlorotoluene</b>	Category 2A(Remark 1)	Category R	Not Listed
<b>α,α,α,4-tetrachlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>Chlorobenzene</b>	Not Listed	Not Listed	Not Listed
<b>1,2-dichlorobenzene</b>	Category 3	Not Listed	Not Listed
<b>2,3,4,5,6-Pentachlorotoluene</b>	Not Listed	Not Listed	Not Listed
<b>Pentachlorobenzene</b>	Not Listed	Not Listed	Not Listed
<b>Dichloromethane</b>	Category 2A	Category R	Listed

Remark 1: combined exposures with benzoyl chloride

## Others

<b>29 Mix chlorobenzenes, chlorinated toluenes in dichloromethane</b>	
<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>	Based on available data, the classification criteria are not met
<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

## 12 Ecological information

### Acute aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
<b>2,6-dichlorotoluene</b>	LC <sub>50</sub> : 2.3mg/L (96h)(Fish)	EC <sub>50</sub> : 0.38mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 2.7mg/L (72h)(Algae)
<b>1,2-dichlorobenzene</b>	LC <sub>50</sub> : 6.66mg/L (96h)(Fish)	EC <sub>50</sub> : 0.7mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 71.1mg/L (96h)(Algae)
<b>Pentachlorobenzene</b>	LC <sub>50</sub> : 0.248mg/L (96h)(Fish)	EC <sub>50</sub> : 0.01mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 6.7mg/L (96h)(Algae)
<b>α-chlorotoluene</b>	LC <sub>50</sub> : 4mg/L (96h)(Fish)	No information available	No information available
<b>1,2,4,5-tetrachlorobenzene</b>	LC <sub>50</sub> : 2.12mg/L (96h)(Fish)	No information available	ErC <sub>50</sub> : 49.8mg/L (96h)(Algae)
<b>2-chlorotoluene</b>	LC <sub>50</sub> : 7.8mg/L (96h)(Fish)	EC <sub>50</sub> : 0.7mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 7.8mg/L (72h)(Algae)
<b>1,2,4-trichlorobenzene</b>	LC <sub>50</sub> : 2.4mg/L (96h)(Fish)	EC <sub>50</sub> : 2.05mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 5.7mg/L (72h)(Algae)
<b>1,3,5-trichlorobenzene</b>	LC <sub>50</sub> : 3.2mg/L (96h)(Fish)	EC <sub>50</sub> : 2.9mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : >4.8mg/L (72h)(Algae)
<b>1,2,3,5-tetrachlorobenzene</b>	LC <sub>50</sub> : 5.05mg/L (96h)(Fish)	No information available	ErC <sub>50</sub> : 17.4mg/L (96h)(Algae)
<b>Hexachlorobenzene</b>	LC <sub>50</sub> : 7.6mg/L (96h)(Fish)	No information available	No information available
<b>1,3-dichlorobenzene</b>	LC <sub>50</sub> : 7.8mg/L (96h)(Fish)	EC <sub>50</sub> : 2.5mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 126mg/L (96h)(Algae)
<b>Dichloromethane</b>	LC <sub>50</sub> : 193mg/L (96h)(Fish)	EC <sub>50</sub> : 1470mg/L (48h)(Crustaceans)	No information available
<b>3,4-dichlorotoluene</b>	LC <sub>50</sub> : 4.3mg/L (96h)(Fish)	EC <sub>50</sub> : 1.4mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 1.4mg/L (72h)(Algae)
<b>1,2,3-trichlorobenzene</b>	LC <sub>50</sub> : 3.2mg/L (96h)(Fish)	EC <sub>50</sub> : 0.46mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 0.9mg/L (96h)(Algae)
<b>2,4-dichlorotoluene</b>	LC <sub>50</sub> : 9~10mg/L (96h)(Fish)	EC <sub>50</sub> : 1.01mg/L (48h)(Crustaceans)	No information available
<b>Chlorobenzene</b>	LC <sub>50</sub> : 6.6mg/L (96h)(Fish)	EC <sub>50</sub> : 5.29mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 202mg/L (96h)(Algae)
<b>1,2-dichlorobenzene</b>	LC <sub>50</sub> : 6.66mg/L (96h)(Fish)	EC <sub>50</sub> : 0.7mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 71.1mg/L (96h)(Algae)
<b>1,2,3,4-tetrachlorobenzene</b>	LC <sub>50</sub> : 1.1mg/L (96h)(Fish)	EC <sub>50</sub> : 0.13mg/L (48h)(Crustaceans)	No information available
<b>4-chlorotoluene</b>	LC <sub>50</sub> : 5.92mg/L (96h)(Fish)	EC <sub>50</sub> : 2.0mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 6.1mg/L (72h)(Algae)
<b>2,5-dichlorotoluene</b>	LC <sub>50</sub> : 4.0mg/L (96h)(Fish)	EC <sub>50</sub> : 1.1mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 1.7mg/L (72h)(Algae)

### Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
2,6-dichlorotoluene	No information available	No information available	NOEC : 0.37mg/L(Algae)
1,2-dichlorobenzene	NOEC : 0.8mg/L(Fish)	NOEC : <0.10mg/L(Crustaceans)	NOEC : 2.6mg/L(Algae)
3,4-dichlorotoluene	No information available	No information available	NOEC : 0.23mg/L(Algae)
1,2,3-trichlorobenzene	NOEC : 0.32mg/L(Fish)	NOEC : 0.17mg/L(Crustaceans)	NOEC : 0.23mg/L(Algae)
2-chlorotoluene	No information available	NOEC : 0.31mg/L(Crustaceans)	NOEC : 2.6mg/L(Algae)
1,2-dichlorobenzene	NOEC : 0.8mg/L(Fish)	NOEC : <0.10mg/L(Crustaceans)	NOEC : 2.6mg/L(Algae)
Chlorobenzene	No information available	NOEC : 0.72mg/L(Crustaceans)	No information available
1,2,4-trichlorobenzene	NOEC : 0.04mg/L(Fish)	NOEC : 0.10mg/L(Crustaceans)	NOEC : 2.2mg/L(Algae)
1,3,5-trichlorobenzene	No information available	NOEC : 0.32mg/L(Crustaceans)	NOEC : 0.59mg/L(Algae)
4-chlorotoluene	No information available	NOEC : 0.32mg/L(Crustaceans)	NOEC : 2.2mg/L(Algae)
1,3-dichlorobenzene	NOEC : 0.7mg/L(Fish)	NOEC : <0.10mg/L(Crustaceans)	NOEC : 2.2mg/L(Algae)
2,5-dichlorotoluene	No information available	No information available	NOEC : 0.43mg/L(Algae)

### Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
4-chlorotoluene	High	High
2-chlorotoluene	High	High
3,4-dichlorotoluene	High	High
1,2-dichlorobenzene	High(Half-life = 360 days)	Medium(Half-life = 63.67 days)
Hexachlorobenzene	High(Half-life = 4178 days)	High(Half-life = 1563.75 days)
1,2,4,5-tetrachlorobenzene	High(Half-life = 360 days)	High(Half-life = 317.96 days)
3-chlorotoluene	High	High
1,2,3,5-tetrachlorobenzene	High	High
2,4-dichlorotoluene	High	High
2,3-dichlorotoluene	High	High
2,5-dichlorotoluene	High	High
1,3-dichlorobenzene	High(Half-life = 360 days)	Low(Half-life = 37.13 days)
1,2,4-trichlorobenzene	High(Half-life = 360 days)	Low(Half-life = 53.5 days)
2,6-dichlorotoluene	High	High
1,3,5-trichlorobenzene	High	High

<b>1,2,3,4-tetrachlorobenzene</b>	High	High
<b>1,2,3-trichlorobenzene</b>	High	High
<b>1,2-dichlorobenzene</b>	High(Half-life = 360 days)	Medium(Half-life = 63.67 days)
<b>Pentachlorobenzene</b>	High(Half-life = 690 days)	High(Half-life = 453.21 days)

### Bioaccumulative potential

Component	Bioaccumulative potential	Comments
4-chlorotoluene	Low	BCF=101.6
2-chlorotoluene	Low	BCF=112
3,4-dichlorotoluene	Medium	Log Kow=3.95
1,2-dichlorobenzene	Low	BCF=260
Hexachlorobenzene	High	BCF=575440
<b>1,2,4,5-tetrachlorobenzene</b>	High	BCF=4830
3-chlorotoluene	Low	Log Kow=3.28
<b>1,2,3,5-tetrachlorobenzene</b>	High	Log Kow=4.56
2,4-dichlorotoluene	Medium	BCF=939
2,3-dichlorotoluene	Medium	Log Kow=3.8293
2,5-dichlorotoluene	Medium	Log Kow=3.97
1,3-dichlorobenzene	High	BCF=6918
1,2,4-trichlorobenzene	High	BCF=4420
2,6-dichlorotoluene	Medium	BCF=828
1,3,5-trichlorobenzene	Medium	Log Kow=4.19
<b>1,2,3,4-tetrachlorobenzene</b>	Medium	BCF=1710
1,2,3-trichlorobenzene	Medium	Log Kow=4.05
1,2-dichlorobenzene	Low	BCF=260
Pentachlorobenzene	High	BCF=6840

### Mobility in soil

Component	log Koc	Remark
4-chlorotoluene	2.637	
2-chlorotoluene	2.54	20 °C
3,4-dichlorotoluene	2.856	
1,2-dichlorobenzene	2.65	20 °C
Hexachlorobenzene	3.529	
<b>1,2,4,5-tetrachlorobenzene</b>	3.074	
3-chlorotoluene	2.637	

<b>1,2,3,5-tetrachlorobenzene</b>	3.074	
<b>2,4-dichlorotoluene</b>	2.856	
<b>2,3-dichlorotoluene</b>	2.865	
<b>2,5-dichlorotoluene</b>	2.856	
<b>1,3-dichlorobenzene</b>	2.5	
<b>1,2,4-trichlorobenzene</b>	2.856	
<b>2,6-dichlorotoluene</b>	2.865	
<b>1,3,5-trichlorobenzene</b>	2.847	
<b>1,2,3,4-tetrachlorobenzene</b>	3.083	
<b>1,2,3-trichlorobenzene</b>	2.87	
<b>Chlorobenzene</b>	2.369	MCI method
<b>1,2-dichlorobenzene</b>	2.65	20 °C
<b>Pentachlorobenzene</b>	3.301	
<b>Dichloromethane</b>	1.67	20 °C

### 13 Disposal considerations

#### Disposal considerations

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

### 14 Transport information

#### Label and Mark

<b>Transporting Label</b>	
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#### IMDG-CODE

<b>UN number</b>	1593
<b>UN proper shipping name</b>	DICHLOROMETHANE
<b>Transport hazard class</b>	6.1
<b>Transport subsidiary hazard class</b>	None
<b>Packing group</b>	III
<b>Marine pollutant ( Yes or no )</b>	No

#### IATA-DGR

<b>UN number</b>	1593
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UN proper shipping name	DICHLOROMEETHANE
Transport hazard class	6.1
Transport subsidiary hazard class	None
Packing group	III

### UN-ADR

UN number	1593
UN proper shipping name	DICHLOROMEETHANE
Transport hazard class	6.1
Transport subsidiary hazard class	None
Packing group	III

### Transport in bulk according to IMO instruments

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

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

	Not Available
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- ◆ Transport in bulk in accordance with the IGC Code

	Not Available
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### Others

Precautions for transport	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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## 15 Regulatory information

### International chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M
4-chlorotoluene	√	√	√	×	√	√	√	√	√	×	×	√	√
2,3,6-trichlorotoluene	×	√	√	×	×	×	×	×	√	×	×	√	√
2-chlorotoluene	√	√	√	√	√	√	√	√	√	×	√	√	√
2,3,4,6-Tetrachlorotoluene	×	×	×	×	×	×	×	×	×	×	×	×	×
3,4-dichlorotoluene	√	√	√	√	×	√	√	√	√	×	√	√	√
1,2-dichlorobenzene	√	√	√	√	√	√	√	√	√	√	√	√	√
Hexachlorobenzene	√	√	√	√	×	√	×	√	√	√	√	√	√
2,3,4,5-Tetrachlorotoluene	×	×	×	×	×	×	×	×	×	×	×	×	×
1,2,4,5-tetrachlorobenzen e	√	√	√	√	×	×	×	×	√	×	√	√	√
3-chlorotoluene	√	√	√	×	√	√	×	√	√	×	×	√	√

1,2,3,5-tetrachlorobenzene	√	√	√	×	×	×	×	√	√	×	×	√	√
2,3,5,6-Tetrachlorotoluene	×	×	×	×	×	×	×	×	×	×	×	×	×
2,4-dichlorotoluene	√	√	√	√	×	√	×	√	√	×	×	√	√
2,3-dichlorotoluene	√	√	√	×	×	×	×	√	√	×	×	√	√
2,5-dichlorotoluene	√	√	√	√	×	×	×	√	√	×	×	√	√
1,3-dichlorobenzene	√	√	√	√	√	√	√	√	√	×	√	√	√
2,4,5-trichlorotoluene	×	√	√	×	×	×	×	×	√	×	×	√	√
1,2,4-trichlorobenzene	√	√	√	√	√	√	√	√	√	√	√	√	√
2,6-dichlorotoluene	√	√	√	×	√	√	×	√	√	×	√	√	√
1,3,5-trichlorobenzene	√	√	√	√	√	√	×	√	√	×	√	√	√
1,2,3,4-tetrachlorobenzene	√	√	√	√	×	√	×	√	√	×	×	√	√
1,2,3-trichlorobenzene	√	√	√	√	√	√	√	√	√	√	×	√	√
α-chlorotoluene	√	√	√	√	√	√	√	√	√	√	√	√	√
α,α,α-trichlorotoluene	√	√	√	×	√	√	√	×	√	×	√	√	√
α,α,α,4-tetrachlorotoluene	×	√	√	×	×	√	×	√	√	×	×	√	√
Chlorobenzene	√	√	√	√	√	√	√	√	√	√	√	√	√
1,2-dichlorobenzene	√	√	√	√	√	√	√	√	√	√	√	√	√
2,3,4,5,6-Pentachlorotoluene	×	×	×	×	×	×	×	×	×	×	×	×	√
Pentachlorobenzene	√	√	√	√	×	×	×	√	√	×	√	√	√
Dichloromethane	√	√	√	√	√	√	√	√	√	√	√	√	√

- [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
4-chlorotoluene	×	×	×
2,3,6-trichlorotoluene	×	×	×
2-chlorotoluene	×	×	×
2,3,4,6-Tetrachlorotoluene	×	×	×
3,4-dichlorotoluene	×	×	×
1,2-dichlorobenzene	×	×	×

Hexachlorobenzene	x	√	√
2,3,4,5-Tetrachlorotoluene	x	x	x
1,2,4,5-tetrachlorobenzene	x	x	x
3-chlorotoluene	x	x	x
1,2,3,5-tetrachlorobenzene	x	x	x
2,3,5,6-Tetrachlorotoluene	x	x	x
2,4-dichlorotoluene	x	x	x
2,3-dichlorotoluene	x	x	x
2,5-dichlorotoluene	x	x	x
1,3-dichlorobenzene	x	x	x
2,4,5-trichlorotoluene	x	x	x
1,2,4-trichlorobenzene	x	x	x
2,6-dichlorotoluene	x	x	x
1,3,5-trichlorobenzene	x	x	x
1,2,3,4-tetrachlorobenzene	x	x	x
1,2,3-trichlorobenzene	x	x	x
α-chlorotoluene	x	x	x
α,α,α-trichlorotoluene	x	x	x
α,α,α,4-tetrachlorotoluene	x	x	x
Chlorobenzene	x	x	x
1,2-dichlorobenzene	x	x	x
2,3,4,5,6-Pentachlorotoluene	x	x	x
Pentachlorobenzene	x	√	x
Dichloromethane	x	x	x

【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

## US chemical inventory

Component	A	B	C	D	E	F	G	H
4-chlorotoluene	x	x	x	√	x	x	x	x
2,3,6-trichlorotoluene	x	x	x	x	x	x	x	x
2-chlorotoluene	x	x	x	√	√	√	√	x
2,3,4,6-Tetrachlorotoluene	x	x	x	x	x	x	x	x
3,4-dichlorotoluene	x	x	x	x	x	x	x	x
1,2-dichlorobenzene	x	x	√	√	√	√	√	x
Hexachlorobenzene	√	x	√	√	√	√	√	√

<b>2,3,4,5-Tetrachlorotoluene</b>	x	x	x	x	x	x	x	x
<b>1,2,4,5-tetrachlorobenzene</b>	x	x	√	√	√	√	√	x
<b>3-chlorotoluene</b>	x	x	x	x	x	x	x	x
<b>1,2,3,5-tetrachlorobenzene</b>	x	x	x	x	x	x	x	x
<b>2,3,5,6-Tetrachlorotoluene</b>	x	x	x	x	x	x	x	x
<b>2,4-dichlorotoluene</b>	x	x	x	x	x	x	x	x
<b>2,3-dichlorotoluene</b>	x	x	x	x	x	x	x	x
<b>2,5-dichlorotoluene</b>	x	x	x	x	x	x	x	x
<b>1,3-dichlorobenzene</b>	x	x	√	√	√	√	√	x
<b>2,4,5-trichlorotoluene</b>	x	x	x	x	x	x	x	x
<b>1,2,4-trichlorobenzene</b>	√	x	√	√	√	√	√	x
<b>2,6-dichlorotoluene</b>	x	x	x	x	x	x	x	x
<b>1,3,5-trichlorobenzene</b>	x	x	x	x	x	x	x	x
<b>1,2,3,4-tetrachlorobenzene</b>	x	x	x	x	x	x	x	x
<b>1,2,3-trichlorobenzene</b>	x	x	x	√	x	x	√	x
<b>α-chlorotoluene</b>	√	√	√	√	√	√	√	√
<b>α,α,α-trichlorotoluene</b>	√	√	√	√	√	√	√	√
<b>α,α,α,4-tetrachlorotoluene</b>	x	x	x	x	x	x	x	√
<b>Chlorobenzene</b>	√	x	√	√	√	√	√	x
<b>1,2-dichlorobenzene</b>	x	x	√	√	√	√	√	x
<b>2,3,4,5,6-Pentachlorotoluene</b>	x	x	x	x	x	x	x	x
<b>Pentachlorobenzene</b>	x	x	√	√	√	√	√	x
<b>Dichloromethane</b>	√	x	√	√	√	√	√	√

- [A] US Clean Air Act (CAA)- Section 112, Hazardous Air Pollutants  
 [B] US SARA 302- Extremely Hazardous Substance List  
 [C] US CERCLA- Hazardous Substances List  
 [D] US Massachusetts Right-to-Know Substance List  
 [E] US New Jersey Right to Know Hazardous Substance List  
 [F] US Pennsylvania Right to Know Hazardous Substance List  
 [G] US New York City Right-to-Know Hazardous Substance List  
 [H] US California Proposition 65 List

Note:

- “√” Indicates that the substance included in the regulations.  
 “x” No data or not included in the regulations.

## 16 Other information

### Information on revision

<b>Creation Date</b>	2025/11/09
<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	HCS	Hazard Communication Standard

## Disclaimer

This Safety Data Sheet (SDS) was prepared according to OSHA HCS-2024. 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.