

## Safety Data Sheet

# 23 Mix chlorinated benzenes and chlorinated toluenes in dichloromethane



Version : V2.0.0.1

Report No. : BWQ0240-2016-MSDS-EP

Creation Date : 2026/01/19

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**\*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	23 Mix chlorinated benzenes and chlorinated toluenes in dichloromethane
Cat No.	BWQ0240-2016
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

Acute Toxicity - Oral	Category 4
Carcinogenicity	Category 1B
Hazardous to the aquatic environment - long-term (chronic) hazard	Category 3

## 2.2 Label elements

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

## Hazard statements

H302	Harmful if swallowed
H350	May cause cancer
H412	Harmful to aquatic life with long lasting effects
EUH208	Contains sensitising substance. May produce an allergic reaction

## 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.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

### ◆ Response

P330	Rinse mouth.
P301+P312	IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
P308+P313	IF exposed or concerned: Get medical advice/attention.

### ◆ 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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## 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
2-chlorotoluene	Not PBT/vPvB
3-chlorotoluene	Insufficient information, temporarily unable to evaluate
4-chlorotoluene	Not PBT/vPvB
2,3-dichlorotoluene	Insufficient information, temporarily unable to evaluate
2,4-dichlorotoluene	Insufficient information, temporarily unable to evaluate
2,5-dichlorotoluene	Insufficient information, temporarily unable to evaluate

<b>2,6-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>3,4-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,3,6-trichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,4,5-trichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>α,α,α,4-tetrachlorotoluene</b>	Not PBT/vPvB
<b>2,3,4,5,6-PENTACHLOROTOLUENE</b>	Insufficient information, temporarily unable to evaluate
<b>1,2-dichlorobenzene</b>	Not PBT/vPvB
<b>1,3-dichlorobenzene</b>	Not PBT/vPvB
<b>1,4-dichlorobenzene</b>	Not PBT/vPvB
<b>1,2,3-trichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,4-trichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,3,5-trichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,3,4-tetrachlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,3,5-tetrachlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,4,5-tetrachlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>Pentachlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>Hexachlorobenzene</b>	Insufficient information, temporarily unable to evaluate

◆ Results of endocrine disrupting properties assessment

<b>Component</b>	<b>Results of endocrine disrupting properties assessment [according to (EU) No 2017/2100 or (EU) No 2018/605]</b>
<b>Dichloromethane</b>	Insufficient information, temporarily unable to evaluate
<b>2-chlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>3-chlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>4-chlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,3-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,4-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,5-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,6-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>3,4-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,3,6-trichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,4,5-trichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>α,α,α,4-tetrachlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,3,4,5,6-PENTACHLOROTOLUENE</b>	Insufficient information, temporarily unable to evaluate
<b>1,2-dichlorobenzene</b>	Insufficient information, temporarily unable to evaluate

<b>1,3-dichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,4-dichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,3-trichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,4-trichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,3,5-trichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,3,4-tetrachlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,3,5-tetrachlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,4,5-tetrachlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>Pentachlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>Hexachlorobenzene</b>	Insufficient information, temporarily unable to evaluate

◆ Other

Not applicable.

### 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	96.3625	Carcinogenicity, Category 2, H351	-
<b>2-chlorotoluene</b> CAS : 95-49-8 EC : 202-424-3 Index No. : 602-040-00-X	0.1455	Acute Toxicity - Inhalation, Category 4, H332; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
<b>3-chlorotoluene</b> CAS : 108-41-8 EC : 203-580-5 Index No. : 602-040-00-X	0.1455	Acute Toxicity - Inhalation, Category 4, H332; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
<b>4-chlorotoluene</b> CAS : 106-43-4 EC : 203-397-0 Index No. : 602-040-00-X	0.1455	Acute Toxicity - Inhalation, Category 4, H332; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
<b>2,3-dichlorotoluene</b> CAS : 32768-54-0 EC : 251-203-8 Index No. : -	0.1455	Skin Corrosion/Irritation, Category 2, H315; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
<b>2,4-dichlorotoluene</b> CAS : 95-73-8 EC : 202-445-8 Index No. : -	0.1455	Skin Corrosion/Irritation, Category 2, H315; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-

<b>2,5-dichlorotoluene</b> CAS : 19398-61-9 EC : 243-032-2 Index No. : -	0.1455	Acute Toxicity - Inhalation, Category 4, H332	-
<b>2,6-dichlorotoluene</b> CAS : 118-69-4 EC : 204-269-7 Index No. : -	0.1455	Skin Corrosion/Irritation, Category 2, H315; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
<b>3,4-dichlorotoluene</b> CAS : 95-75-0 EC : 202-447-9 Index No. : -	0.1455	Acute Toxicity - Oral, Category 4, H302; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
<b>2,3,6-trichlorotoluene</b> CAS : 2077-46-5 EC : 218-202-4 Index No. : -	0.1455	Not Classified	-
<b>2,4,5-trichlorotoluene</b> CAS : 6639-30-1 EC : 229-644-2 Index No. : -	0.1455	Serious eye damage/irritation, Category 1, H318; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 4, H413	-
<b>α, α, α, 4-tetrachlorotoluene</b> CAS : 5216-25-1 EC : 226-009-1 Index No. : 602-093-00-9	0.1455	Acute Toxicity - Oral, Category 4, H302; Acute Toxicity - Dermal, Category 4, H312; Skin Corrosion/Irritation, Category 2, H315; Specific target organ toxicity - single exposure; respiratory tract irritation, Category 3, H335; Carcinogenicity, Category 1B, H350; Reproductive toxicity, Category 2, H361; Specific target organ toxicity - repeated exposure, Category 1, H372	-
<b>2,3,4,5,6-PENTACHLORO TOLUENE</b> CAS : 877-11-2 EC : - Index No. : -	0.1455	Acute Toxicity - Oral, Category 4, H302; Acute Toxicity - Dermal, Category 4, H312; Skin Corrosion/Irritation, Category 2, H315; Acute Toxicity - Inhalation, Category 4, H332; Specific target organ toxicity - single exposure; respiratory tract irritation, Category 3, H335	-
<b>1,2-dichlorobenzene</b> CAS : 95-50-1 EC : 202-425-9 Index No. : 602-034-00-7	0.1455	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; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	-
<b>1,3-dichlorobenzene</b> CAS : 541-73-1 EC : 208-792-1 Index No. : 602-067-00-7	0.1455	Acute Toxicity - Oral, Category 4, H302; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
<b>1,4-dichlorobenzene</b> CAS : 106-46-7 EC : 203-400-5 Index No. : 602-035-00-2	0.1455	Serious eye damage/irritation, Category 2, H319; Carcinogenicity, Category 2, H351; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	-
<b>1,2,3-trichlorobenzene</b>	0.1455	Sensitization - skin, Category 1B, H317;	-

CAS : 87-61-6 EC : 201-757-1 Index No. : -		Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	
<b>1,2,4-trichlorobenzene</b> CAS : 120-82-1 EC : 204-428-0 Index No. : 602-087-00-6	0.1455	Acute Toxicity - Oral, Category 4, H302; Skin Corrosion/Irritation, Category 2, H315; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	-
<b>1,3,5-trichlorobenzene</b> CAS : 108-70-3 EC : 203-608-6 Index No. : -	0.1455	Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
<b>1,2,3,4-tetrachlorobenzene</b> CAS : 634-66-2 EC : 211-214-0 Index No. : -	0.1455	Acute Toxicity - Oral, Category 4, H302; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	-
<b>1,2,3,5-tetrachlorobenzene</b> CAS : 634-90-2 EC : 211-217-7 Index No. : -	0.1455	Acute Toxicity - Oral, Category 4, H302; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	-
<b>1,2,4,5-tetrachlorobenzene</b> CAS : 95-94-3 EC : 202-466-2 Index No. : -	0.1455	Acute Toxicity - Oral, Category 4, H302	-
<b>Pentachlorobenzene</b> CAS : 608-93-5 EC : 210-172-0 Index No. : 602-074-00-5	0.1455	Flammable solids, Category 1, H228; Acute Toxicity - Oral, Category 4, H302; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	-
<b>Hexachlorobenzene</b> CAS : 118-74-1 EC : 204-273-9 Index No. : 602-065-00-6	0.1455	Carcinogenicity, Category 1B, H350; Specific target organ toxicity - repeated exposure, Category 1, H372; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	-

## 4 First-aid measures

### 4.1 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.

#### **| 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>	Use extinguishing media suitable for surrounding area.
<b>Unsuitable extinguishing media</b>	There is no restriction on the type of extinguisher which may be used.

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

1	Development of hazardous combustion gases or vapor possible in the event of fire.
2	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	Use personal protective equipment, do not breathe gas/mist/vapour/spray.
2	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
3	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	Cut off the source of the leak as much as possible.
2	Keep leaks in a ventilated place.
3	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
4	Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
5	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>
Dichloromethane	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>2-chlorotoluene</b>	Permissible exposure standards for workers in the workplace	50	259	75	323.75
	France	50	250	-	-
	Austria	50	250	-	-
	Belgium	50	263	-	-
	Denmark	50	285	100	570
	Finland	50	260	75	390
<b>3-chlorotoluene</b>	Finland	50	260	75	390
<b>4-chlorotoluene</b>	Finland	50	260	75	390
	Latvia	-	10	-	-
	Romania	30	150	50	250
<b>2,4-dichlorotoluene</b>	Germany (AGS)	1.3	8	2.6	16
	Austria	5	30	20	120
<b>1,2-dichlorobenzene</b>	Japan - JSOH(2024–2025)	25	150	-	-
	Permissible exposure standards for workers in the workplace	-	-	-	-
	European Union	20	122	50	306
	France	20	122	50	306
	Germany (AGS)	10	61	20	122
	Germany (DFG)	10	61	20	122
<b>1,3-dichlorobenzene</b>	Germany (AGS)	2	12	4	24
	Germany (DFG)	2	12	4	24
	Austria	3	20	12	80
	Hungary	-	12	-	24
	Latvia	-	20	-	-
	Switzerland	2	12	4	24
<b>1,4-dichlorobenzene</b>	Japan - JSOH(2024–2025)	10	60	-	-
	Permissible exposure standards for workers in the workplace	75	450	112.5	562.5
	European Union	2	12	10	60
	France	0.75	4.5	10	60

	Germany (AGS)	2	12	4	24
	Germany (DFG)	2	12	4	24
<b>1,2,3-trichlorobenzene</b>	Germany (DFG)	0.5	0.38	1	0.76
	Denmark	5	37	10	76
	Finland	5	38	10	75
	Poland	-	15	-	30
	Canada - Ontario	-	-	5	-
<b>1,2,4-trichlorobenzene</b>	Permissible exposure standards for workers in the workplace	-	-	-	-
	European Union	2	15.1	5	37.8
	France	2	15.1	5	37.8
	Germany (AGS)	0.5	3.8	2	15.2
	Germany (DFG)	0.5	0.38	1	0.76
	Italy	2	15.1	5	37.8
<b>1,3,5-trichlorobenzene</b>	Germany (DFG)	0.5	0.38	1	0.76
	Denmark	5	37	10	74
	Finland	5	38	10	75
	Poland	-	15	-	30
<b>Hexachlorobenzene</b>	Belgium	-	0.002	-	-
	Denmark	-	0.025	-	0.05
	Finland	-	0.002	-	-
	Latvia	-	0.9	-	-
	Netherlands	-	0.006	-	-
	Poland	-	0.003	-	-

◆ 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	

◆ 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)
Dichloromethane	Inhalation	No data available	No data available	No data available	176 mg/m3
	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
2-chlorotoluene	Inhalation	No data available	No data available	No data available	4 mg/m3
	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
3-chlorotoluene	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
4-chlorotoluene	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
2,3-dichlorotoluene	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
2,4-dichlorotoluene	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
2,5-dichlorotoluene	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
2,6-dichlorotoluene	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
3,4-dichlorotoluene	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
2,3,6-trichlorotoluene	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
2,4,5-trichlorotoluene	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>ne</b>	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>2-chlorotoluene</b>	6.3 µg/L	630 ng/L	15 mg/L	240 µg/kg sediment dw	24 µg/kg sediment dw	No hazard identified	44.3 µg/kg soil dw	No potential for bioaccumulation
<b>4-chlorotoluene</b>	32 µg/L	3.2 µg/L	11.1 mg/L	1.16 mg/kg sediment dw	120 µg/kg sediment dw	No data available	214 µg/kg soil dw	No data available
<b>1,2-dichlorobenzene</b>	3.7 µg/L	370 ng/L	4.7 mg/L	177 µg/kg sediment dw	17.7 µg/kg sediment dw	No hazard identified	33.3 µg/kg soil dw	5.56 mg/kg food
<b>1,4-dichlorobenzene</b>	20 µg/L	2 µg/L	8.6 mg/L	980 µg/kg sediment dw	98 µg/kg sediment dw	No data available	108 µg/kg soil dw	10 mg/kg food

**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

General requirement	
Eye protection	Must wear appropriate safety goggles.

<b>Hand protection</b>	Must wear appropriate chemical protective gloves.
<b>Respiratory protection</b>	Must wear appropriate personal respiratory protective equipment.
<b>Skin and body protection</b>	Must wear appropriate chemical protective clothing and chemical resistant 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

<b>Physical state</b>	Clear, colorless liquid
<b>Colour</b>	Clear, colorless liquid
<b>Odor</b>	No information available
<b>Odor threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting point/freezing point(°C)</b>	-97 ( Dichloromethane )
<b>Initial boiling point and boiling range(°C)</b>	40 ( Dichloromethane )
<b>Flash point(Closed cup, °C)</b>	No information available
<b>Evaporation rate</b>	No information available
<b>Flammability</b>	No information available
<b>Upper/lower explosive limits[%(v/v)]</b>	Upper limit : 22 ( Dichloromethane ) ; Lower limit : 13 ( Dichloromethane )
<b>Vapor pressure</b>	47.4kPa ( 20°C,Dichloromethane )
<b>Vapor density(Air = 1)</b>	2.9 ( Dichloromethane )
<b>Relative density(Water=1)</b>	1.3 ( 20°C,Dichloromethane )
<b>Solubility</b>	20g/l ( 20°C,Dichloromethane )
<b>n-octanol/water partition coefficient</b>	1.25 ( Dichloromethane )
<b>Auto-ignition temperature(°C)</b>	605 ( Dichloromethane )
<b>Decomposition temperature(°C)</b>	No information available
<b>Kinematic viscosity</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Particle characteristics</b>	Not applicable

### 9.2 Other information

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

<b>Information with regard to physical hazard classes</b>	No information available
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#### 9.2.2 Other safety characteristics

<b>Other safety characteristics</b>	No information available
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## 10 Stability and reactivity

### Stability and reactivity

<b>10.1 Reactivity</b>	Contact with incompatible substances can cause decomposition or other chemical reactions.
<b>10.2 Chemical stability</b>	Stable under proper operation and storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	Reactions with metals form metal organic compounds.
<b>10.4 Conditions to avoid</b>	Incompatible materials, heat, flame and spark.
<b>10.5 Incompatible materials</b>	Metal, oxidantss and alkali.
<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

23 Mix chlorinated benzenes and chlorinated toluenes in dichloromethane	
<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

### Acute toxicity

Component	LD <sub>50</sub> (oral)	LD <sub>50</sub> (dermal)	LC <sub>50</sub> (inhalation,4h)
<b>2,3,6-trichlorotoluene</b>	2000mg/kg(Mouse)	No information available	No information available
<b>1,2,3-trichlorobenzene</b>	1830mg/kg(Rat)	No information available	No information available
<b>2-chlorotoluene</b>	3900mg/kg(Rat)	No information available	No information available
<b>1,4-dichlorobenzene</b>	500~5000mg/kg(Rat)	> 2000mg/kg(Rabbit)	No information available
<b>1,3,5-trichlorobenzene</b>	800mg/kg(Rat)	No information available	No information available
<b>1,2,3,4-tetrachlorobenzene</b>	1167mg/kg(Rat)	No information available	No information available
<b>4-chlorotoluene</b>	2100mg/kg(Rat)	No information available	No information available
<b>2,4-dichlorotoluene</b>	2400mg/kg(Rat)	No information available	No information available
<b>Dichloromethane</b>	1600mg/kg(Rat)	No information available	No information available
<b>1,2,4,5-tetrachlorobenzene</b>	1500mg/kg(Rat)	No information available	No information available
<b>Hexachlorobenzene</b>	10000mg/kg(Rat)	10000mg/kg(Rat)	No information available
<b>Pentachlorobenzene</b>	1080mg/kg(Rat)	> 2500mg/kg(Rat)	No information available
<b>1,2,4-trichlorobenzene</b>	756mg/kg(Rat)	6139mg/kg(Rat)	No information available
<b>1,2,3,5-tetrachlorobenzene</b>	1727mg/kg(Rat)	No information available	No information available
<b>1,2-dichlorobenzene</b>	500mg/kg(Rat)	> 10000mg/kg(Rabbit)	No information available

<b>α,α,α,4-tetrachlorotoluene</b>	820mg/kg(Rat)	> 2000mg/kg(Rabbit)	No information available
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## Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
Dichloromethane	Category 2A	Category R
2-chlorotoluene	Not Listed	Not Listed
3-chlorotoluene	Not Listed	Not Listed
4-chlorotoluene	Not Listed	Not Listed
2,3-dichlorotoluene	Not Listed	Not Listed
2,4-dichlorotoluene	Not Listed	Not Listed
2,5-dichlorotoluene	Not Listed	Not Listed
2,6-dichlorotoluene	Not Listed	Not Listed
3,4-dichlorotoluene	Not Listed	Not Listed
2,3,6-trichlorotoluene	Not Listed	Not Listed
2,4,5-trichlorotoluene	Not Listed	Not Listed
α,α,α,4-tetrachlorotoluene	Not Listed	Not Listed
2,3,4,5,6-PENTACHLOROTOLUENE	Not Listed	Not Listed
1,2-dichlorobenzene	Category 3	Not Listed
1,3-dichlorobenzene	Category 3	Not Listed
1,4-dichlorobenzene	Category 2B	Category R
1,2,3-trichlorobenzene	Not Listed	Not Listed
1,2,4-trichlorobenzene	Not Listed	Not Listed
1,3,5-trichlorobenzene	Not Listed	Not Listed
1,2,3,4-tetrachlorobenzen e	Not Listed	Not Listed
1,2,3,5-tetrachlorobenzen e	Not Listed	Not Listed
1,2,4,5-tetrachlorobenzen e	Not Listed	Not Listed
Pentachlorobenzene	Not Listed	Not Listed
Hexachlorobenzene	Category 2B	Category R

## 11.2 Information on other hazards

### 11.2.1 Endocrine disrupting properties

Component	Endocrine disrupting properties
Dichloromethane	No information available
2-chlorotoluene	No information available
3-chlorotoluene	No information available

<b>4-chlorotoluene</b>	No information available
<b>2,3-dichlorotoluene</b>	No information available
<b>2,4-dichlorotoluene</b>	No information available
<b>2,5-dichlorotoluene</b>	No information available
<b>2,6-dichlorotoluene</b>	No information available
<b>3,4-dichlorotoluene</b>	No information available
<b>2,3,6-trichlorotoluene</b>	No information available
<b>2,4,5-trichlorotoluene</b>	No information available
<b>α,α,α,4-tetrachlorotoluene</b>	No information available
<b>2,3,4,5,6-PENTACHLOROTOLUENE</b>	No information available
<b>1,2-dichlorobenzene</b>	No information available
<b>1,3-dichlorobenzene</b>	No information available
<b>1,4-dichlorobenzene</b>	No information available
<b>1,2,3-trichlorobenzene</b>	No information available
<b>1,2,4-trichlorobenzene</b>	No information available
<b>1,3,5-trichlorobenzene</b>	No information available
<b>1,2,3,4-tetrachlorobenzen e</b>	No information available
<b>1,2,3,5-tetrachlorobenzen e</b>	No information available
<b>1,2,4,5-tetrachlorobenzen e</b>	No information available
<b>Pentachlorobenzene</b>	No information available
<b>Hexachlorobenzene</b>	No information available

### 11.2.2 Other Information

Other Information	See Section 11.1
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## 12 Ecological information

### 12.1 Toxicity

#### Acute aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
<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-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>1,4-dichlorobenzene</b>	LC <sub>50</sub> : 2.2mg/L (96h)(Fish)	EC <sub>50</sub> : 2.5mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : 5.4mg/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>1,2,3,4-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>2,4-dichlorotoluene</b>	LC <sub>50</sub> : 9~10mg/L (96h)(Fish)	EC <sub>50</sub> : 1.01mg/L (48h)(Crustaceans)	No information available
<b>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)
<b>Dichloromethane</b>	LC <sub>50</sub> : 193mg/L (96h)(Fish)	EC <sub>50</sub> : 1470mg/L (48h)(Crustaceans)	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>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>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>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>1,2,3,5-tetrachlorobenzene</b>	LC <sub>50</sub> : 5.05mg/L (96h)(Fish)	No information available	ErC <sub>50</sub> : 17.4mg/L (96h)(Algae)
<b>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>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)

### Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
<b>2-chlorotoluene</b>	No information available	NOEC : 0.31mg/L(Crustaceans)	NOEC : 2.6mg/L(Algae)
<b>1,2,3-trichlorobenzene</b>	NOEC : 0.32mg/L(Fish)	NOEC : 0.17mg/L(Crustaceans)	NOEC : 0.23mg/L(Algae)
<b>1,3,5-trichlorobenzene</b>	No information available	NOEC : 0.32mg/L(Crustaceans)	NOEC : 0.59mg/L(Algae)
<b>1,4-dichlorobenzene</b>	NOEC : 0.9mg/L(Fish)	NOEC : 0.10mg/L(Crustaceans)	NOEC : 0.83mg/L(Algae)
<b>1,3-dichlorobenzene</b>	NOEC : 0.7mg/L(Fish)	NOEC : <0.10mg/L(Crustaceans)	NOEC : 2.2mg/L(Algae)
<b>1,2,4-trichlorobenzene</b>	NOEC : 0.04mg/L(Fish)	NOEC : 0.10mg/L(Crustaceans)	NOEC : 2.2mg/L(Algae)
<b>4-chlorotoluene</b>	No information available	NOEC : 0.32mg/L(Crustaceans)	NOEC : 2.2mg/L(Algae)
<b>2,6-dichlorotoluene</b>	No information available	No information available	NOEC : 0.37mg/L(Algae)
<b>1,2-dichlorobenzene</b>	NOEC : 0.8mg/L(Fish)	NOEC : <0.10mg/L(Crustaceans)	NOEC : 2.6mg/L(Algae)
<b>2,5-dichlorotoluene</b>	No information available	No information available	NOEC : 0.43mg/L(Algae)

<b>3,4-dichlorotoluene</b>	No information available	No information available	NOEC : 0.23mg/L(Algae)
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## 12.2 Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
<b>2-chlorotoluene</b>	High	High
<b>3-chlorotoluene</b>	High	High
<b>4-chlorotoluene</b>	High	High
<b>2,3-dichlorotoluene</b>	High	High
<b>2,4-dichlorotoluene</b>	High	High
<b>2,5-dichlorotoluene</b>	High	High
<b>2,6-dichlorotoluene</b>	High	High
<b>3,4-dichlorotoluene</b>	High	High
<b>1,2-dichlorobenzene</b>	High(Half-life = 360 days)	Medium(Half-life = 63.67 days)
<b>1,3-dichlorobenzene</b>	High(Half-life = 360 days)	Low(Half-life = 37.13 days)
<b>1,2,3-trichlorobenzene</b>	High	High
<b>1,2,4-trichlorobenzene</b>	High(Half-life = 360 days)	Low(Half-life = 53.5 days)
<b>1,3,5-trichlorobenzene</b>	High	High
<b>1,2,3,4-tetrachlorobenzene</b>	High	High
<b>1,2,3,5-tetrachlorobenzene</b>	High	High
<b>1,2,4,5-tetrachlorobenzene</b>	High(Half-life = 360 days)	High(Half-life = 317.96 days)
<b>Pentachlorobenzene</b>	High(Half-life = 690 days)	High(Half-life = 453.21 days)
<b>Hexachlorobenzene</b>	High(Half-life = 4178 days)	High(Half-life = 1563.75 days)

## 12.3 Bioaccumulative potential

Component	Bioaccumulative potential	Comments
<b>2-chlorotoluene</b>	Low	BCF=112
<b>3-chlorotoluene</b>	Low	Log Kow=3.28
<b>4-chlorotoluene</b>	Low	BCF=101.6
<b>2,3-dichlorotoluene</b>	Medium	Log Kow=3.8293
<b>2,4-dichlorotoluene</b>	Medium	BCF=939
<b>2,5-dichlorotoluene</b>	Medium	Log Kow=3.97
<b>2,6-dichlorotoluene</b>	Medium	BCF=828
<b>3,4-dichlorotoluene</b>	Medium	Log Kow=3.95
<b>1,2-dichlorobenzene</b>	Low	BCF=260
<b>1,3-dichlorobenzene</b>	High	BCF=6918
<b>1,2,3-trichlorobenzene</b>	Medium	Log Kow=4.05

1,2,4-trichlorobenzene	High	BCF=4420
1,3,5-trichlorobenzene	Medium	Log Kow=4.19
1,2,3,4-tetrachlorobenzene	Medium	BCF=1710
1,2,3,5-tetrachlorobenzene	High	Log Kow=4.56
1,2,4,5-tetrachlorobenzene	High	BCF=4830
Pentachlorobenzene	High	BCF=6840
Hexachlorobenzene	High	BCF=575440

#### 12.4 Mobility in soil

Component	log Koc	Remark
Dichloromethane	1.67	20 °C
2-chlorotoluene	2.54	20 °C
3-chlorotoluene	2.637	
4-chlorotoluene	2.637	
2,3-dichlorotoluene	2.865	
2,4-dichlorotoluene	2.856	
2,5-dichlorotoluene	2.856	
2,6-dichlorotoluene	2.865	
3,4-dichlorotoluene	2.856	
1,2-dichlorobenzene	2.65	20 °C
1,3-dichlorobenzene	2.5	
1,2,3-trichlorobenzene	2.87	
1,2,4-trichlorobenzene	2.856	
1,3,5-trichlorobenzene	2.847	
1,2,3,4-tetrachlorobenzene	3.083	
1,2,3,5-tetrachlorobenzene	3.074	
1,2,4,5-tetrachlorobenzene	3.074	
Pentachlorobenzene	3.301	
Hexachlorobenzene	3.529	

#### 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
2-chlorotoluene	Not PBT/vPvB
3-chlorotoluene	Insufficient information, temporarily unable to evaluate

<b>4-chlorotoluene</b>	Not PBT/vPvB
<b>2,3-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,4-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,5-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,6-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>3,4-dichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,3,6-trichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>2,4,5-trichlorotoluene</b>	Insufficient information, temporarily unable to evaluate
<b>α,α,α,4-tetrachlorotoluene</b>	Not PBT/vPvB
<b>2,3,4,5,6-PENTACHLOROTOLUENE</b>	Insufficient information, temporarily unable to evaluate
<b>1,2-dichlorobenzene</b>	Not PBT/vPvB
<b>1,3-dichlorobenzene</b>	Not PBT/vPvB
<b>1,4-dichlorobenzene</b>	Not PBT/vPvB
<b>1,2,3-trichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,4-trichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,3,5-trichlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,3,4-tetrachlorobenzen e</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,3,5-tetrachlorobenzen e</b>	Insufficient information, temporarily unable to evaluate
<b>1,2,4,5-tetrachlorobenzen e</b>	Insufficient information, temporarily unable to evaluate
<b>Pentachlorobenzene</b>	Insufficient information, temporarily unable to evaluate
<b>Hexachlorobenzene</b>	Insufficient information, temporarily unable to evaluate

## 12.6 Endocrine disrupting properties

<b>Component</b>	<b>Endocrine disrupting properties</b>
<b>Dichloromethane</b>	No information available
<b>2-chlorotoluene</b>	No information available
<b>3-chlorotoluene</b>	No information available
<b>4-chlorotoluene</b>	No information available
<b>2,3-dichlorotoluene</b>	No information available
<b>2,4-dichlorotoluene</b>	No information available
<b>2,5-dichlorotoluene</b>	No information available
<b>2,6-dichlorotoluene</b>	No information available
<b>3,4-dichlorotoluene</b>	No information available
<b>2,3,6-trichlorotoluene</b>	No information available
<b>2,4,5-trichlorotoluene</b>	No information available

<b>α,α,α,4-tetrachlorotoluene</b>	No information available
<b>2,3,4,5,6-PENTACHLOROTOLUENE</b>	No information available
<b>1,2-dichlorobenzene</b>	No information available
<b>1,3-dichlorobenzene</b>	No information available
<b>1,4-dichlorobenzene</b>	No information available
<b>1,2,3-trichlorobenzene</b>	No information available
<b>1,2,4-trichlorobenzene</b>	No information available
<b>1,3,5-trichlorobenzene</b>	No information available
<b>1,2,3,4-tetrachlorobenzen e</b>	No information available
<b>1,2,3,5-tetrachlorobenzen e</b>	No information available
<b>1,2,4,5-tetrachlorobenzen e</b>	No information available
<b>Pentachlorobenzene</b>	No information available
<b>Hexachlorobenzene</b>	No information available

### 12.7 Other adverse effects

	No information available
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## 13 Disposal considerations

### 13.1 Waste treatment methods

<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>	Not applicable
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### IMDG-CODE

<b>IMDG-CODE</b>	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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### IATA-DGR

<b>IATA-DGR</b>	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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### UN-ADR

<b>UN-ADR</b>	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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### Special precautions for user

	Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before
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transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.

### 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	√	√	√	√	√	√	√	√	√	√	√	√	√
2-chlorotoluene	√	√	√	√	√	√	√	√	√	×	√	√	√
3-chlorotoluene	√	√	√	×	√	√	×	√	√	×	×	√	√
4-chlorotoluene	√	√	√	×	√	√	√	√	√	×	×	√	√
2,3-dichlorotoluene	√	√	√	×	×	×	×	√	√	×	×	√	√
2,4-dichlorotoluene	√	√	√	√	×	√	×	√	√	×	×	√	√
2,5-dichlorotoluene	√	√	√	√	×	×	×	√	√	×	×	√	√
2,6-dichlorotoluene	√	√	√	×	√	√	×	√	√	×	√	√	√
3,4-dichlorotoluene	√	√	√	√	×	√	√	√	√	×	√	√	√
2,3,6-trichlorotoluene	×	√	√	×	×	×	×	×	√	×	×	√	√
2,4,5-trichlorotoluene	×	√	√	×	×	×	×	×	√	×	×	√	√
α,α,α,4-tetrachlorotoluene	×	√	√	×	×	√	×	√	√	×	×	√	√
2,3,4,5,6-PENTACHLOROTOLUENE	×	×	×	×	×	×	×	×	×	×	×	×	√
1,2-dichlorobenzene	√	√	√	√	√	√	√	√	√	√	√	√	√
1,3-dichlorobenzene	√	√	√	√	√	√	√	√	√	×	√	√	√
1,4-dichlorobenzene	√	√	√	√	√	√	√	√	√	√	√	√	√
1,2,3-trichlorobenzene	√	√	√	√	√	√	√	√	√	√	×	√	√
1,2,4-trichlorobenzene	√	√	√	√	√	√	√	√	√	√	√	√	√
1,3,5-trichlorobenzene	√	√	√	√	√	√	×	√	√	×	√	√	√
1,2,3,4-tetrachlorobenzene	√	√	√	√	×	√	×	√	√	×	×	√	√
1,2,3,5-tetrachlorobenzene	√	√	√	×	×	×	×	√	√	×	×	√	√
1,2,4,5-tetrachlorobenzene	√	√	√	√	×	×	×	×	√	×	√	√	√

<b>Pentachlorobenzene</b>	√	√	√	√	×	×	×	√	√	×	√	√	√
<b>Hexachlorobenzene</b>	√	√	√	√	×	√	×	√	√	√	√	√	√

- [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	×	×	×
2-chlorotoluene	×	×	×
3-chlorotoluene	×	×	×
4-chlorotoluene	×	×	×
2,3-dichlorotoluene	×	×	×
2,4-dichlorotoluene	×	×	×
2,5-dichlorotoluene	×	×	×
2,6-dichlorotoluene	×	×	×
3,4-dichlorotoluene	×	×	×
2,3,6-trichlorotoluene	×	×	×
2,4,5-trichlorotoluene	×	×	×
α,α,α,4-tetrachlorotoluene	×	×	×
2,3,4,5,6-PENTACHLORO TOLUENE	×	×	×
1,2-dichlorobenzene	×	×	×
1,3-dichlorobenzene	×	×	×
1,4-dichlorobenzene	×	×	×
1,2,3-trichlorobenzene	×	×	×
1,2,4-trichlorobenzene	×	×	×
1,3,5-trichlorobenzene	×	×	×
1,2,3,4-tetrachlorobenzen e	×	×	×
1,2,3,5-tetrachlorobenzen e	×	×	×
1,2,4,5-tetrachlorobenzen e	×	×	×
Pentachlorobenzene	×	√	×

Hexachlorobenzene	x	√	√
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[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	x	x	√	√	√	√	√	x	x
2-chlorotoluene	x	x	x	√	√	x	x	x	x
3-chlorotoluene	x	x	x	√	√	x	x	x	x
4-chlorotoluene	x	x	x	√	√	x	x	x	x
2,3-dichlorotoluene	x	x	x	√	√	x	x	x	x
2,4-dichlorotoluene	x	x	x	√	√	x	x	x	x
2,5-dichlorotoluene	x	x	x	√	x	x	x	x	x
2,6-dichlorotoluene	x	x	x	√	√	x	x	x	x
3,4-dichlorotoluene	x	x	x	√	√	x	x	x	x
2,3,6-trichlorotoluene	x	x	x	√	x	x	x	x	x
2,4,5-trichlorotoluene	x	x	x	√	x	x	x	x	x
α,α,α,4-tetrachlorotoluene	x	x	√	√	√	x	x	x	x
2,3,4,5,6-PENTACHLOROTOLUENE	x	x	x	x	x	x	x	x	x
1,2-dichlorobenzene	x	x	x	√	√	√	x	x	x
1,3-dichlorobenzene	x	x	x	√	√	x	x	x	x
1,4-dichlorobenzene	x	x	√	√	√	x	x	x	x
1,2,3-trichlorobenzene	x	x	x	√	√	x	x	x	x
1,2,4-trichlorobenzene	x	x	√	√	√	x	√	x	x
1,3,5-trichlorobenzene	x	x	x	√	√	x	x	x	x
1,2,3,4-tetrachlorobenzene	x	x	x	√	x	x	x	x	x
1,2,3,5-tetrachlorobenzene	x	x	x	√	x	x	x	x	x
1,2,4,5-tetrachlorobenzene	x	x	x	√	x	x	x	x	x
Pentachlorobenzene	x	x	x	√	x	x	√	x	√
Hexachlorobenzene	x	x	√	√	x	x	√	x	√

[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.
- “x” No data or not included in the regulations.

### German water hazard class(WGK)

Component	WGK	Remark
Dichloromethane	WGK 2	
2-chlorotoluene	WGK 2	
4-chlorotoluene	WGK 2	
2,4-dichlorotoluene	WGK 2	
2,6-dichlorotoluene	WGK 2	
3,4-dichlorotoluene	WGK 2	
α,α,α,4-tetrachlorotoluene	WGK 3	
1,2-dichlorobenzene	WGK 2	
1,3-dichlorobenzene	WGK 2	
1,4-dichlorobenzene	WGK 2	
1,2,3-trichlorobenzene	WGK 3	
1,2,4-trichlorobenzene	WGK 3	
1,3,5-trichlorobenzene	WGK 3	
1,2,4,5-tetrachlorobenzene	WGK 3	
Pentachlorobenzene	WGK 3	
Hexachlorobenzene	WGK 3	

- 【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>	
2-chlorotoluene	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>	

<p><b>3-chlorotoluene</b></p>	<p>Chapter 5.2.5 Organic Substances. The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas: Mass flow: 0,50 kg/hr or Mass conc.: 50 mg/m<sup>3</sup> At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.</p>	
<p><b>4-chlorotoluene</b></p>	<p>Chapter 5.2.5 Organic Substances. The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas: Mass flow: 0,50 kg/hr or Mass conc.: 50 mg/m<sup>3</sup> At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.</p>	
<p><b>2,6-dichlorotoluene</b></p>	<p>Chapter 5.2.5 Organic Substances. The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas: Mass flow: 0,50 kg/hr or Mass conc.: 50 mg/m<sup>3</sup> At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.</p>	
<p><b>3,4-dichlorotoluene</b></p>	<p>Chapter 5.2.5 Organic Substances. The following values, specified as overall carbon, are in all not allowed to be exceeded in exhaust gas: Mass flow: 0,50 kg/hr or Mass conc.: 50 mg/m<sup>3</sup> At old units with an annual mass flow till 1,5 Mg/a, specified as total carbon, the emissions in exhaust gas are not allowed to exceed 1,5 kg/h.</p>	
<p><b>2,3,6-trichlorotoluene</b></p>	<p>Chapter 5.2.5 Organic Substances, dust, including fine dust. To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values: Mass flow: 0,20 kg/hr or Mass conc.: 20 mg/m<sup>3</sup> The mass per unit volume of 0,15 g/m<sup>3</sup> in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h. For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m<sup>3</sup>.</p>	
<p><b>α,α,α,4-tetrachlorotoluene</b></p>	<p>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</p>	

	<p>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.</p>	
<b>1,4-dichlorobenzene</b>	<p>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></p>	
<b>1,2,3-trichlorobenzene</b>	<p>Chapter 5.2.5 Organic Substances, dust, including fine dust. To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values: Mass flow: 0,20 kg/hr or Mass conc.: 20 mg/m<sup>3</sup> The mass per unit volume of 0,15 g/m<sup>3</sup> in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h. For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m<sup>3</sup>.</p>	
<b>1,3,5-trichlorobenzene</b>	<p>Chapter 5.2.5 Organic Substances, dust, including fine dust. To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values: Mass flow: 0,20 kg/hr or Mass conc.: 20 mg/m<sup>3</sup> The mass per unit volume of 0,15 g/m<sup>3</sup> in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h. For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m<sup>3</sup>.</p>	
<b>1,2,3,4-tetrachlorobenzene</b>	<p>Chapter 5.2.5 Organic Substances, dust, including fine dust. To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values: Mass flow: 0,20 kg/hr or Mass conc.: 20 mg/m<sup>3</sup> The mass per unit volume of 0,15 g/m<sup>3</sup> in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h. For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m<sup>3</sup>.</p>	
<b>1,2,3,5-tetrachlorobenzene</b>	<p>Chapter 5.2.5 Organic Substances, dust, including fine dust. To be treated</p>	

	<p>as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values: Mass flow: 0,20 kg/hr or Mass conc.: 20 mg/m<sup>3</sup> The mass per unit volume of 0,15 g/m<sup>3</sup> in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h. For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m<sup>3</sup>.</p>	
<b>1,2,4,5-tetrachlorobenzene</b>	<p>Chapter 5.2.5 Organic Substances, dust, including fine dust. To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values: Mass flow: 0,20 kg/hr or Mass conc.: 20 mg/m<sup>3</sup> The mass per unit volume of 0,15 g/m<sup>3</sup> in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h. For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m<sup>3</sup>.</p>	
<b>Pentachlorobenzene</b>	<p>Chapter 5.2.5 Organic Substances, dust, including fine dust. To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values: Mass flow: 0,20 kg/hr or Mass conc.: 20 mg/m<sup>3</sup> The mass per unit volume of 0,15 g/m<sup>3</sup> in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h. For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m<sup>3</sup>.</p>	
<b>Hexachlorobenzene</b>	<p>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.</p>	

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

Component	TRGS	Remark
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<b>Dichloromethane</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 500 TRGS 509 TRGS 510	
<b>2-chlorotoluene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 401 TRGS 500 TRGS 509 TRGS 510 TRGS 800 TRGS 720 TRGS 721 TRGS 722 TRGS 723 TRGS 724	
<b>3-chlorotoluene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 500 TRGS 509 TRGS 510 TRGS 800 TRGS 720 TRGS 721 TRGS 722 TRGS 723 TRGS 724	
<b>4-chlorotoluene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 401 TRGS 500 TRGS 509 TRGS 510 TRGS 800 TRGS 720 TRGS 721 TRGS 722 TRGS 723 TRGS 724	
<b>2,4-dichlorotoluene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 500 TRGS 509 TRGS 510 TRGS 800	
<b>2,6-dichlorotoluene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 500 TRGS 509 TRGS 510 TRGS 800	
<b>3,4-dichlorotoluene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 500 TRGS 509 TRGS 510 TRGS 800	
<b>2,3,6-trichlorotoluene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 401 TRGS 500 TRGS 509 TRGS 510	
<b><math>\alpha,\alpha,\alpha,4</math>-tetrachlorotoluene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 401 TRGS 410 TRGS 500 TRGS 509 TRGS 510 TRGS 800	
<b>1,2-dichlorobenzene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 500 TRGS 509 TRGS 510 TRGS 800	
<b>1,3-dichlorobenzene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 500 TRGS 509 TRGS 510 TRGS 800	
<b>1,4-dichlorobenzene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 500 TRGS 509 TRGS 510 TRGS 800	
<b>1,2,3-trichlorobenzene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 500 TRGS 509 TRGS 510 TRGS 800	
<b>1,2,4-trichlorobenzene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 402 TRGS 401 TRGS 500 TRGS 509 TRGS 510 TRGS 800	
<b>1,3,5-trichlorobenzene</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	
<b>1,2,3,4-tetrachlorobenzene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 500 TRGS 509 TRGS 510 TRGS 800 TRGS 720 TRGS 721 TRGS 722 TRGS 723 TRGS 724	
<b>1,2,3,5-tetrachlorobenzene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 500 TRGS 509 TRGS 510 TRGS 800 TRGS 720 TRGS 721 TRGS 722 TRGS 723 TRGS 724	
<b>1,2,4,5-tetrachlorobenzene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 500 TRGS 509 TRGS 510 TRGS 800 TRGS 720 TRGS 721 TRGS 722 TRGS 723 TRGS 724	
<b>Pentachlorobenzene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 500 TRGS 509 TRGS 510 TRGS 800 TRGS 720 TRGS 721 TRGS 722 TRGS 723 TRGS 724	
<b>Hexachlorobenzene</b>	TRGS 201 TRGS 400 TRGS 555 TRGS 600 TRGS 401 TRGS 410 TRGS 500 TRGS 509 TRGS 510 TRGS 800 TRGS 560	

## 15.2 Chemical safety assessment

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

### Information on revision

<b>Creation Date</b>	2026/01/19
<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

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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.