Revised 8260 Calibration Mix

Safety Data Sheet

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

Date of issue: 11/06/2018 Revision date: 11/06/2018 Version: 1.0

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

1.1. Product identifier

Product form : Mixture

Product name : Revised 8260 Calibration Mix

Product code : AL0-130502

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

1.3. Details of the supplier of the safety data sheet

Phenova
6390 Joyce Dr. Suite 100
Golden, CO 80403 - United States
T 1-866-942-2978 - F 1-866-283-0269
info@phenova.com - www.phenova.com

1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924
ChemTel Assistance (International) +1 813-248-0585

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 1	H224
Acute Tox. 3 (Oral)	H301
Acute Tox. 3 (Dermal)	H311
Eye Irrit. 2	H319
Skin Sens. 1	H317
Muta. 1B	H340
Carc. 1A	H350
STOT SE 1	H370
Ozone 1	H420

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS02 GHS06 GHS07 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H224 - Extremely flammable liquid and vapour
H301+H311 - Toxic if swallowed or in contact with skin
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H340 - May cause genetic defects
H350 - May cause cancer
H370 - Causes damage to organs
H420 - Harms public health and the environment by destroying ozone in the upper atmosphere

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 - If swallowed: Immediately call a poison center or doctor

P302+P352 - If on skin: Wash with plenty of water
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P307+P311 - If exposed: Call a poison center/doctor
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a poison center or doctor if you feel unwell
P321 - Specific treatment (see supplemental first aid instruction on this label)
P322 - Specific treatment (see supplemental first aid instruction on this label)
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
P502 - Refer to manufacturer/supplier for information on recovery/recycling.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
methanol (Component)	(CAS-No.) 67-56-1	74.5	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
iodomethane (Component)	(CAS-No.) 74-88-4	1.25	Not classified
tert-Butanol	(CAS-No.) 75-65-0	1.25	Flam. Liq. 2, H225
allyl chloride (Component)	(CAS-No.) 107-05-1	1.25	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302
acrylonitrile, inhibited (Component)	(CAS-No.) 107-13-1	1.25	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1B, H350 STOT SE 3, H335 Aquatic Chronic 2, H411
methyl acetate (Component)	(CAS-No.) 79-20-9	1.25	Flam. Liq. 2, H225
bromodichloromethane (Component)	(CAS-No.) 75-27-4	0.25	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335
1,2-dibromo-3-chloropropane (Component)	(CAS-No.) 96-12-8	0.25	Flam. Liq. 4, H227 Acute Tox. 3 (Oral), H301 Muta. 1B, H340 Carc. 1B, H350 STOT RE 2, H373 Aquatic Chronic 3, H412

Name	Product identifier	%	GHS-US classification
1,2-Dibromoethane (Component)	(CAS-No.) 106-93-4	0.25	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 1B, H350 STOT SE 3, H335 Aquatic Chronic 2, H411
chloroform (Component)	(CAS-No.) 67-66-3	0.25	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 1B, H350 STOT RE 1, H372
benzene (Component)	(CAS-No.) 71-43-2	0.25	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304
toluene (Component)	(CAS-No.) 108-88-3	0.25	Flam. Liq. 2, H225 Muta. 1B, H340
ethylbenzene (Component)	(CAS-No.) 100-41-4	0.25	Flam. Liq. 2, H225 Carc. 2, H351
1,2,3-trichloropropane (Component)	(CAS-No.) 96-18-4	0.25	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Carc. 1B, H350
1,4-dichlorobenzene (Component)	(CAS-No.) 106-46-7	0.25	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,3-dichloropropene, trans- (Component)	(CAS-No.) 10061-02-6	0.25	Flam. Liq. 3, H226 Carc. 2, H351
cis-1,3-Dichloropropene (Component)	(CAS-No.) 10061-01-5	0.25	Flam. Liq. 3, H226 Carc. 2, H351
Methylene Chloride (Component)	(CAS-No.) 75-09-2	0.25	Carc. 1B, H350
1,2-dichloropropane (Component)	(CAS-No.) 78-87-5	0.25	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Carc. 1A, H350
1,2-dichloroethane (Component)	(CAS-No.) 107-06-2	0.25	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 1B, H350 STOT SE 3, H335
trichloroethylene (Component)	(CAS-No.) 79-01-6	0.25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 2, H341 Carc. 1A, H350 STOT SE 3, H336 Aquatic Chronic 3, H412
carbon tetrachloride (Component)	(CAS-No.) 56-23-5	0.25	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Carc. 1B, H350 STOT RE 1, H372 Aquatic Chronic 3, H412 Ozone 1, H420
naphthalene (Component)	(CAS-No.) 91-20-3	0.25	Acute Tox. 4 (Oral), H302 Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,1,2,2-tetrachloroethane (Component)	(CAS-No.) 79-34-5	0.25	Acute Tox. 3 (Oral), H301 Acute Tox. 1 (Dermal), H310 Acute Tox. 2 (Inhalation), H330 Carc. 2, H351 Aquatic Chronic 2, H411

Name	Product identifier	%	GHS-US classification
1,1,1,2-tetrachloroethane (Component)	(CAS-No.) 630-20-6	0.25	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318 Carc. 2, H351
styrene (Component)	(CAS-No.) 100-42-5	0.25	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 1B, H350 STOT RE 1, H372
Isopropylbenzene (Component)	(CAS-No.) 98-82-8	0.25	Flam. Liq. 3, H226 Carc. 1B, H350 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
tetrachloroethylene (Component)	(CAS-No.) 127-18-4	0.25	Carc. 1B, H350 Aquatic Chronic 2, H411
tetrahydrofuran (Component)	(CAS-No.) 109-99-9	0.25	Flam. Liq. 2, H225 Acute Tox. 1 (Oral), H300 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a poison center or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May cause an allergic skin reaction. May cause cancer by inhalation.

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.

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

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

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

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapor-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. May form explosive peroxides.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire reaches explosives. Evacuate area.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapors/spray.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up in absorbent material. Collect spillage.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Keep away from sources of ignition - No smoking.

Hygiene measures : Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.

Incompatible products : Oxidizing agent.

Incompatible materials : Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Revised 8260 Calibration Mix		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	250 ppm
USA ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
USA OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm

chloroform (67-66-3)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm (Chloroform; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Liver dam; embryo/fetal dam
USA OSHA	OSHA PEL (Ceiling) (mg/m³)	240 mg/m³
USA OSHA	OSHA PEL (Ceiling) (ppm)	50 ppm

1,2-Dibromoethane (106-93-4)		
USA OSHA	Remark (OSHA)	(2) See Table Z-2.

1,2,3-trichloropropane (96-18-4)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm (1,2,3-Trichloropropane; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Cancer; eye & URT irr; liver dam; A2 (Suspected Human Carcinogen: Human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen; OR, the agent is carcinogenic in experimental animals at dose(s), by route(s) of exposure, at site(s), of histologic type(s), or by mechanism(s) considered relevant to worker exposure. The A2 is used primarily when there is limited evidence or carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans)
USA OSHA	OSHA PEL (TWA) (mg/m³)	300 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm

benzene (71-43-2)		
USA ACGIH	ACGIH TWA (ppm)	0.5 ppm (Benzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (ppm)	2.5 ppm (Benzene; USA; Short time value; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Leukemia
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	25 ppm

ethylbenzene (100-41-4)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm (Ethyl benzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	URT irr; kidney dam (nephropathy)
USA OSHA	OSHA PEL (TWA) (mg/m³)	435 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm

toluene (108-88-3)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm (Toluene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Visual impair; female repro;
USA OSHA	Remark (OSHA)	(2) See Table Z-2.

1,4-dichlorobenzene (106-46-7)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm (p-Dichlorobenzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Eye irr; kidney dam
USA OSHA	OSHA PEL (TWA) (mg/m³)	450 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	75 ppm
USA OSHA	OSHA PEL (STEL) (mg/m³)	675 mg/m³
USA OSHA	OSHA PEL (STEL) (ppm)	110 ppm

Methylene Chloride (75-09-2)		
USA ACGIH	ACGIH TWA (ppm)	50 ppm (Dichloromethane (Methylene chloride); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	COHb-emia; CNS impair
USA OSHA	Remark (OSHA)	(2) See Table Z-2.

1,2-dichloroethane (107-06-2)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm (Ethylene dichloride; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Liver dam; nausea
USA OSHA	Remark (OSHA)	(2) See Table Z-2.

1,2-dichloropropane (78-87-5)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm (Propylene dichloride; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	URT irr; body weight eff; DSEN; A4 (Not classifiable as a Human Carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories)
USA OSHA	OSHA PEL (TWA) (mg/m³)	350 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	75 ppm

cis-1,3-Dichloropropene (10061-01-5)		
USA ACGIH	ACGIH TWA (ppm)	1 ppm (1,3-Dichloropropene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)

1,3-dichloropropene, trans- (10061-02-6)		
USA ACGIH	ACGIH TWA (ppm)	1 ppm (1,3-Dichloropropene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)

trichloroethylene (79-01-6)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm (Trichloroethylene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (ppm)	25 ppm (Trichloroethylene; USA; Short time value; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	CNS impair; cognitive decrements
USA OSHA	Remark (OSHA)	(2) See Table Z-2.

carbon tetrachloride (56-23-5)		
USA ACGIH	ACGIH TWA (ppm)	5 ppm (Carbon tetrachloride; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (ppm)	10 ppm (Carbon tetrachloride; USA; Short time value; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Liver dam
USA OSHA	Remark (OSHA)	(2) See Table Z-2.

1,1,2,2-tetrachloroethane (79-34-5)		
USA ACGIH	ACGIH TWA (ppm)	1 ppm (1,1,2,2-Tetrachloroethane; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Liver dam
USA OSHA	OSHA PEL (TWA) (mg/m³)	35 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	5 ppm

tetrachloroethylene (127-18-4)		
USA ACGIH	ACGIH TWA (ppm)	25 ppm (Tetrachloroethylene (Perchloroethylene); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (ppm)	100 ppm (Tetrachloroethylene (Perchloroethylene); USA; Short time value; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	CNS impair
USA OSHA	Remark (OSHA)	(2) See Table Z-2.

naphthalene (91-20-3)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm (Naphthalene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Hematologic eff; URT & eye irr; Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure)
USA OSHA	OSHA PEL (TWA) (mg/m³)	50 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm

Isopropylbenzene (98-82-8)		
USA ACGIH	ACGIH TWA (ppm)	50 ppm (Cumene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Eye, skin, & URT irr; CNS impair
USA OSHA	OSHA PEL (TWA) (mg/m³)	245 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm

styrene (100-42-5)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm (Styrene, monomer; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (ppm)	40 ppm (Styrene, monomer; USA; Short time value; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	CNS impair; URT irr; peripheral
USA OSHA	Remark (OSHA)	(2) See Table Z-2.

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

allyl chloride (107-05-1)		
USA ACGIH	ACGIH TWA (ppm)	1 ppm (Allyl chloride; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (ppm)	2 ppm (Allyl chloride; USA; Short time value; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Eye & URT irr; liver & kidney dam
USA OSHA	OSHA PEL (TWA) (mg/m³)	3 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	1 ppm

iodomethane (74-88-4)		
USA ACGIH	ACGIH TWA (ppm)	2 ppm (Methyl iodide; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Eye dam; CNS impair
USA OSHA	OSHA PEL (TWA) (mg/m³)	28 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	5 ppm

acrylonitrile, inhibited (107-13-1)		
USA ACGIH	ACGIH TWA (ppm)	2 ppm (Acrylonitrile; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	CNS impair; LRT irr

methyl acetate (79-20-9)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm (Methyl acetate; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (ppm)	250 ppm (Methyl acetate; USA; Short time value; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	eye & URT irr
USA OSHA	OSHA PEL (TWA) (mg/m³)	610 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm

methanol (67-56-1)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm (Methanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (ppm)	250 ppm (Methanol; USA; Short time value; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
USA OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm

tert-Butanol (75-65-0)		
USA ACGIH	ACGIH TWA (ppm)	100 ppm (tert-Butanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	Remark (ACGIH)	CNS impair
USA OSHA	OSHA PEL (TWA) (mg/m³)	300 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm

8.2. Exposure controls

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

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.

Hand protection : Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration.

Eye protection : Chemical goggles or safety glasses. Safety glasses.

Skin and body protection : Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Colorless.

Odor : characteristic.

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	May form explosive peroxides.
Oxidizing properties	:	No data available
Explosion limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Extremely flammable liquid and vapour. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Reacts vigorously with strong oxidizers and acids.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

May release flammable gases. May form explosive peroxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin.

Revised 8260 Calibration Mix	
ATE CLP (oral)	108.104 mg/kg body weight
ATE CLP (dermal)	303.116 mg/kg body weight

bromodichloromethane (75-27-4)	
LD50 oral rat	916 mg/kg (Rat)
ATE CLP (oral)	916 mg/kg body weight

chloroform (67-66-3)	
LD50 oral rat	695 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 908 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value; 1117 mg/kg bodyweight; Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit; No reliable data available; >3980 mg/kg bodyweight; Rabbit)
ATE CLP (oral)	908 mg/kg body weight
ATE CLP (gases)	700 ppmV/4h
ATE CLP (vapors)	3 mg/l/4h

chloroform (67-66-3)	
ATE CLP (dust, mist)	0.5 mg/l/4h

1,2-dibromo-3-chloropropane (96-12-8)	
LD50 oral rat	170 mg/kg (Rat)
ATE CLP (oral)	170 mg/kg body weight

1,2-Dibromoethane (106-93-4)	
LD50 oral rat	108 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 140 mg/kg bodyweight; Rat)
LD50 dermal rat	300 mg/kg (Rat)
LD50 dermal rabbit	300 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (ppm)	> 200 ppm/4h (Rat; Experimental value)
ATE CLP (oral)	108 mg/kg body weight
ATE CLP (dermal)	300 mg/kg body weight
ATE CLP (gases)	700 ppmV/4h
ATE CLP (vapors)	3 mg/l/4h
ATE CLP (dust, mist)	0.5 mg/l/4h

1,2,3-trichloropropane (96-18-4)	
LD50 oral rat	442 mg/kg (Rat)
LD50 dermal rabbit	850 mg/kg (Rabbit)
ATE CLP (oral)	442 mg/kg body weight
ATE CLP (dermal)	850 mg/kg body weight
ATE CLP (gases)	4500 ppmV/4h
ATE CLP (vapors)	11 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h

benzene (71-43-2)	
LD50 oral rat	> 930 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; > 2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 8240 mg/kg (Rabbit; Experimental value; 21 CFR 191.10; > 9.4; Rabbit)
LC50 inhalation rat (mg/l)	43.767 mg/l/4h (Rat; Experimental value)
LC50 inhalation rat (ppm)	13700 ppm/4h (Rat; Experimental value)
ATE CLP (gases)	13700 ppmV/4h
ATE CLP (vapors)	43.767 mg/l/4h
ATE CLP (dust, mist)	43.767 mg/l/4h

ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat; Other; Experimental value)
LD50 dermal rabbit	15415 mg/kg (Rabbit; Literature study; Other; 15432 mg/kg; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	17.8 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	4000 ppm/4h (Rat; Literature study)
ATE CLP (oral)	3500 mg/kg body weight
ATE CLP (dermal)	15432 mg/kg body weight
ATE CLP (gases)	4500 ppmV/4h
ATE CLP (vapors)	17.8 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h

toluene (108-88-3)	
LD50 oral rat	> 2000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 5580 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	12223 mg/kg (Rabbit; Literature study; Other; >5000 mg/kg bodyweight; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	> 20 mg/l/4h (Rat; Literature study)
ATE CLP (dermal)	12223 mg/kg body weight

1,4-dichlorobenzene (106-46-7)	
LD50 dermal rat	> 6000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)

1,4-dichlorobenzene (106-46-7)	
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)

Methylene Chloride (75-09-2)	
LD50 oral rat	> 2000 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study)

1,2-dichloroethane (107-06-2)	
LD50 oral rat	770 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	2800 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	7.758 mg/l/4h (Rat; Experimental value)
LC50 inhalation rat (ppm)	1886 ppm/4h (Rat; Experimental value)
ATE CLP (oral)	770 mg/kg body weight
ATE CLP (dermal)	2800 mg/kg body weight
ATE CLP (gases)	1886 ppmV/4h
ATE CLP (vapors)	7.758 mg/l/4h
ATE CLP (dust, mist)	7.758 mg/l/4h

1,2-dichloropropane (78-87-5)	
LD50 oral rat	1900 mg/kg (Rat; Experimental value; 2200 mg/kg bodyweight; Rat)
LD50 dermal rat	10404 mg/kg (Rat)
LD50 dermal rabbit	8750 mg/kg (Rabbit; Experimental value; 10100 mg/kg bodyweight; Rabbit)
LC50 inhalation rat (mg/l)	9.4 mg/l air (4 h, Rat, Male/female, Experimental value, Inhalation (vapours), 14 day(s))
LC50 inhalation rat (ppm)	2000 ppm/4h (Rat; Experimental value)
ATE CLP (oral)	500 mg/kg body weight
ATE CLP (dermal)	10100 mg/kg body weight
ATE CLP (gases)	4500 ppmV/4h
ATE CLP (vapors)	11 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h

cis-1,3-Dichloropropene (10061-01-5)	
ATE CLP (oral)	100 mg/kg body weight
ATE CLP (dermal)	300 mg/kg body weight
ATE CLP (gases)	4500 ppmV/4h
ATE CLP (vapors)	11 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h

1,3-dichloropropene, trans- (10061-02-6)	
ATE CLP (oral)	100 mg/kg body weight
ATE CLP (dermal)	1100 mg/kg body weight
ATE CLP (gases)	4500 ppmV/4h
ATE CLP (vapors)	11 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h

trichloroethylene (79-01-6)	
LD50 oral rat	4920 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	66 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	12000 ppm/4h (Rat)
ATE CLP (oral)	4920 mg/kg body weight
ATE CLP (gases)	12000 ppmV/4h
ATE CLP (vapors)	66 mg/l/4h
ATE CLP (dust, mist)	66 mg/l/4h

carbon tetrachloride (56-23-5)	
ATE CLP (oral)	100 mg/kg body weight
ATE CLP (dermal)	300 mg/kg body weight
ATE CLP (gases)	700 ppmV/4h
ATE CLP (vapors)	3 mg/l/4h
ATE CLP (dust, mist)	0.5 mg/l/4h

1,1,2,2-tetrachloroethane (79-34-5)	
LD50 oral rat	250 mg/kg (Rat; Literature study)
LD50 dermal rabbit	3990 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	8.6 mg/l/4h (Rat; Literature study)
ATE CLP (oral)	250 mg/kg body weight
ATE CLP (dermal)	5 mg/kg body weight
ATE CLP (gases)	100 ppmV/4h
ATE CLP (vapors)	8.6 mg/l/4h
ATE CLP (dust, mist)	0.05 mg/l/4h

tetrachloroethylene (127-18-4)	
LD50 oral rat	> 2000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 3835 mg/kg bodyweight; Rat; Equivalent or similar to OECD 401; Experimental value; 3005 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 3000 mg/kg (Rabbit; Literature study; >10000 mg/kg bodyweight; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	27.58 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	3786 ppm/4h (Rat; Experimental value)
ATE CLP (gases)	3786 ppmV/4h
ATE CLP (vapors)	27.58 mg/l/4h
ATE CLP (dust, mist)	27.58 mg/l/4h

naphthalene (91-20-3)	
LD50 oral rat	> 1100 mg/kg (Rat)
LD50 dermal rat	> 2500 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)
ATE CLP (oral)	500 mg/kg body weight

1,1,1,2-tetrachloroethane (630-20-6)	
LD50 oral rat	670 mg/kg (Rat; Literature study)
LD50 dermal rabbit	20000 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	14 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	2100 ppm/4h (Rat; Literature study)
ATE CLP (oral)	670 mg/kg body weight
ATE CLP (dermal)	20000 mg/kg body weight
ATE CLP (gases)	2100 ppmV/4h
ATE CLP (vapors)	14 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h

Isopropylbenzene (98-82-8)	
LD50 oral rat	> 2000 mg/kg (Rat; Other; Literature study; 4000 mg/kg bodyweight; Rat; Other; Inconclusive, insufficient data)
LD50 dermal rabbit	10578 mg/kg (Rabbit; Literature study; Other)
LC50 inhalation rat (mg/l)	40 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	8000 ppm/4h (Rat; Literature study)
ATE CLP (dermal)	10578 mg/kg body weight
ATE CLP (gases)	8000 ppmV/4h
ATE CLP (vapors)	40 mg/l/4h
ATE CLP (dust, mist)	40 mg/l/4h

styrene (100-42-5)	
LD50 oral rat	5000 mg/kg (Rat; Literature study; >6000 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rat	2820 mg/kg (Rat; Literature study; OECD 402: Acute Dermal Toxicity; >2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	5010 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	12 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	2770 ppm/4h (Rat; Literature study)
ATE CLP (oral)	5000 mg/kg body weight
ATE CLP (dermal)	2820 mg/kg body weight

styrene (100-42-5)	
ATE CLP (gases)	4500 ppmV/4h
ATE CLP (vapors)	11 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h

tetrahydrofuran (109-99-9)	
LD50 oral rat	2.3 - 3.6 (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 1650 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rat	> 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	54 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	18200 ppm/4h (Rat; Literature study)
ATE CLP (oral)	2.3 mg/kg body weight
ATE CLP (gases)	18200 ppmV/4h
ATE CLP (vapors)	54 mg/l/4h
ATE CLP (dust, mist)	54 mg/l/4h

allyl chloride (107-05-1)	
LD50 oral rat	425 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 275-455 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value; 379 - 419 mg/kg bodyweight; Rat)
LD50 dermal rabbit	2066 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 398 mg/kg bodyweight; Rabbit)
LC50 inhalation rat (mg/l)	6.7 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	2100 ppm/4h (Rat)
ATE CLP (oral)	425 mg/kg body weight
ATE CLP (dermal)	1100 mg/kg body weight
ATE CLP (gases)	2100 ppmV/4h
ATE CLP (vapors)	6.7 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h

iodomethane (74-88-4)	
LD50 oral rat	7984 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 131,98 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 2000 mg/kg body weight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	401 mg/l/4h (Rat; Calculated value; 1,3 mg/l/4h; Rat)
LC50 inhalation rat (ppm)	691 ppm/4h (Rat; Experimental value)
ATE CLP (oral)	100 mg/kg body weight
ATE CLP (dermal)	1100 mg/kg body weight
ATE CLP (gases)	691 ppmV/4h
ATE CLP (vapors)	3 mg/l/4h
ATE CLP (dust, mist)	0.5 mg/l/4h

acrylonitrile, inhibited (107-13-1)	
LD50 oral rat	78 mg/kg (Rat)
LD50 dermal rat	148 mg/kg (Rat)
LD50 dermal rabbit	63 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.72 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	333 ppm/4h (Rat)
ATE CLP (oral)	78 mg/kg body weight
ATE CLP (dermal)	63 mg/kg body weight
ATE CLP (gases)	333 ppmV/4h
ATE CLP (vapors)	0.72 mg/l/4h
ATE CLP (dust, mist)	0.72 mg/l/4h

methyl acetate (79-20-9)	
LD50 oral rat	6970 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 6482 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Literature study; OECD 402: Acute Dermal Toxicity; >2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit; Literature study)

methyl acetate (79-20-9)	
LC50 inhalation rat (mg/l)	> 20 mg/l/4h (Rat; Literature study)

methanol (67-56-1)	
LD50 oral rat	> 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rabbit	15800 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	85 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	64000 ppm/4h (Rat; Literature study)
ATE CLP (oral)	100 mg/kg body weight
ATE CLP (dermal)	300 mg/kg body weight
ATE CLP (gases)	700 ppmV/4h
ATE CLP (vapors)	3 mg/l/4h
ATE CLP (dust, mist)	0.5 mg/l/4h

tert-Butanol (75-65-0)	
LD50 oral rat	3500 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (ppm)	> 10000 ppm/4h (Rat; Literature study)
ATE CLP (oral)	3500 mg/kg body weight
ATE CLP (gases)	4500 ppmV/4h
ATE CLP (vapors)	11 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : May cause genetic defects.

Carcinogenicity : May cause cancer.

bromodichloromethane (75-27-4)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

chloroform (67-66-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

1,2-dibromo-3-chloropropane (96-12-8)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

1,2-Dibromoethane (106-93-4)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

1,2,3-trichloropropane (96-18-4)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

benzene (71-43-2)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans

toluene (108-88-3)	
IARC group	3 - Not classifiable

1,4-dichlorobenzene (106-46-7)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

Methylene Chloride (75-09-2)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

1,2-dichloroethane (107-06-2)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

1,2-dichloropropane (78-87-5)	
IARC group	1 - Carcinogenic to humans

cis-1,3-Dichloropropene (10061-01-5)	
IARC group	2B - Possibly carcinogenic to humans

1,3-dichloropropene, trans- (10061-02-6)	
IARC group	2B - Possibly carcinogenic to humans

trichloroethylene (79-01-6)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

carbon tetrachloride (56-23-5)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

1,1,2,2-tetrachloroethane (79-34-5)	
IARC group	2B - Possibly carcinogenic to humans

tetrachloroethylene (127-18-4)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

1,1,1,2-tetrachloroethane (630-20-6)	
IARC group	2B - Possibly carcinogenic to humans

Isopropylbenzene (98-82-8)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

styrene (100-42-5)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

tetrahydrofuran (109-99-9)	
IARC group	2B - Possibly carcinogenic to humans

allyl chloride (107-05-1)	
IARC group	3 - Not classifiable

iodomethane (74-88-4)	
IARC group	3 - Not classifiable

acrylonitrile, inhibited (107-13-1)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

Reproductive toxicity : Not classified

Based on available data, the classification criteria are not met

Specific target organ toxicity – single exposure : Causes damage to organs.

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Based on available data, the classification criteria are not met

Potential Adverse human health effects and symptoms	:	Toxic if swallowed. Toxic in contact with skin.
Symptoms/effects after inhalation	:	May cause an allergic skin reaction. May cause cancer by inhalation.
Symptoms/effects after skin contact	:	Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.
Symptoms/effects after ingestion	:	Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - air	:	Dangerous for the ozone layer.
Ecology - water	:	Toxic to aquatic life with long lasting effects.

chloroform (67-66-3)	
LC50 fish 1	18.2 ppm (LC50; ASTM; 96 h; Oncorhynchus mykiss; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 2	152.5 mg/l (EC50; US EPA; 48 h; Daphnia magna; Static system; Salt water; Experimental value)
ErC50 (algae)	13.3 mg/l (Other, 72 h, Chlamydomonas reinhardtii, Static system, Fresh water, Experimental value)

1,2-dibromo-3-chloropropane (96-12-8)	
LC50 fish 2	20 mg/l (LC50; 48 h)

1,2-Dibromoethane (106-93-4)	
EC50 Daphnia 1	40 mg/l (EC50; 3 h)
LC50 fish 2	4.8 mg/l (LC50; 48 h)
Threshold limit algae 1	4 mg/l (EC50; 168 h)
Threshold limit algae 2	> 4.48 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

1,2,3-trichloropropane (96-18-4)	
EC50 Daphnia 1	35.4 mg/l (EC50; 48 h)
LC50 fish 2	75 mg/l (LC50; 96 h; Lepomis macrochirus)
Threshold limit algae 1	170 mg/l (EC50; 3 h)

benzene (71-43-2)	
LC50 fish 1	5.3 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 2	10 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna)
Threshold limit algae 1	100 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

ethylbenzene (100-41-4)	
LC50 fish 1	4.2 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Salmo gairdneri, Semi-static system, Fresh water, Experimental value)
EC50 Daphnia 1	1.8 - 2.4 mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
LC50 fish 2	4.2 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Salmo gairdneri; Semi-static system; Fresh water; Experimental value)

1,4-dichlorobenzene (106-46-7)	
LC50 fish 2	1.12 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 2	0.7 mg/l (EC50; 48 h)

Methylene Chloride (75-09-2)	
LC50 fish 1	193 mg/l (LC50; 96 h; Pimephales promelas)
EC50 Daphnia 1	168.2 mg/l (EC50; 48 h)

1,2-dichloroethane (107-06-2)	
EC50 Daphnia 1	155 - 220 mg/l (EC50; 48 h)
LC50 fish 2	225 mg/l (LC50; 96 h; Salmo gairdneri)

1,2-dichloropropane (78-87-5)	
LC50 fish 1	140 mg/l (EPA 660/3 - 75/009, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	2.7 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Experimental value, GLP)

trichloroethylene (79-01-6)	
LC50 fish 1	40.7 mg/l (LC50; 96 h; Pimephales promelas)
EC50 Daphnia 2	20.8 mg/l (EC50; 48 h)

carbon tetrachloride (56-23-5)	
LC50 fish 1	27 mg/l (LC50; 96 h; Lepomis macrochirus)
EC50 Daphnia 1	29 mg/l (EC50; 48 h)
Threshold limit algae 1	> 600 mg/l (EC0; 168 h)

1,1,2,2-tetrachloroethane (79-34-5)	
EC50 Daphnia 1	9.32 mg/l (EC50; 48 h; Daphnia magna; Static system)
LC50 fish 2	20.3 ppm (LC50; 96 h; Pimephales promelas; Flow-through system)
Threshold limit algae 1	136 mg/l (EC50; 96 h; Selenastrum capricornutum)

tetrachloroethylene (127-18-4)	
EC50 Daphnia 1	8.5 mg/l (EC50; ASTM; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 2	3.64 mg/l (EC50; Other; 72 h; Chlamydomonas angulosa; Fresh water)

naphthalene (91-20-3)	
EC50 Daphnia 1	2.16 mg/l (EC50; 48 h; Daphnia magna)
LC50 fish 2	0.11 mg/l (LC50; 96 h; Oncorhynchus mykiss)
Threshold limit algae 1	0.4 mg/l (EC50; 72 h; Skeletonema costatum)

1,1,1,2-tetrachloroethane (630-20-6)	
LC50 fish 1	16 - 24 mg/l (LC50; 96 h; Lepomis macrochirus; Static system)
EC50 Daphnia 1	17 - 30 mg/l (EC50; 48 h; Daphnia magna)

Isopropylbenzene (98-82-8)	
EC50 Daphnia 1	2.14 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)

styrene (100-42-5)	
LC50 fish 1	10 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	4.7 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Flow-through system, Fresh water, Experimental value, GLP)
ErC50 (algae)	4.9 mg/l (EPA OTS 797.1050, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

tetrahydrofuran (109-99-9)	
LC50 fish 1	2160 mg/l (LC50; Equivalent or similar to OECD 203; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
Threshold limit algae 2	3700 mg/l (EC0; Other; 8 days; Scenedesmus quadricauda; Static system; Fresh water; Experimental value)

allyl chloride (107-05-1)	
LC50 fish 2	0.32 mg/l (LC50; 96 h; Pimephales promelas; Static system)
EC50 Daphnia 2	0.25 - 0.4 mg/l (LC50; 96 h; Daphnia magna; Static system)

iodomethane (74-88-4)	
LC50 fish 2	1.4 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oncorhynchus mykiss; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	0.57 mg/l (LC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Semi-static system; Fresh water; Experimental value)
Threshold limit algae 2	2.55 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

acrylonitrile, inhibited (107-13-1)	
EC50 Daphnia 1	7.55 mg/l (EC50; 48 h)

acrylonitrile, inhibited (107-13-1)	
LC50 fish 2	25 mg/l (LC50; 96 h; Brachydanio rerio)

methyl acetate (79-20-9)	
LC50 fish 1	250 - 350 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Brachydanio rerio; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	1026.7 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 2	> 120 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Scenedesmus subspicatus; Static system; Fresh water; Experimental value)

methanol (67-56-1)	
LC50 fish 1	15400 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	> 10000 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 fish 2	10800 mg/l (LC50; 96 h; Salmo gairdneri)

tert-Butanol (75-65-0)	
EC50 Daphnia 1	933 mg/l (EC50; EU Method C.2; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 fish 2	6410 mg/l (LC50; 96 h; Pimephales promelas)

12.2. Persistence and degradability

Revised 8260 Calibration Mix	
Persistence and degradability	May cause long-term adverse effects in the environment.

bromodichloromethane (75-27-4)	
Persistence and degradability	Not readily biodegradable in water.

chloroform (67-66-3)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Low potential for adsorption in soil.
ThOD	0.33 - 1.35 g O_2/g substance
BOD (% of ThOD)	0.015 - 0.06

1,2-dibromo-3-chloropropane (96-12-8)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil.

1,2-Dibromoethane (106-93-4)	
Persistence and degradability	Not readily biodegradable in water. No significant hydrolysis. Non degradable in the soil. Highly mobile in soil.

1,2,3-trichloropropane (96-18-4)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil.

benzene (71-43-2)	
Persistence and degradability	Readily biodegradable in water. Ozonation in water. Forming sediments in water. Biodegradable in the soil. Low potential for adsorption in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	2.18 g O_2/g substance
Chemical oxygen demand (COD)	2.15 g O_2/g substance
ThOD	3.1 g O_2/g substance
BOD (% of ThOD)	0.7

ethylbenzene (100-41-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.44 g O_2/g substance (20d.)
Chemical oxygen demand (COD)	2.1 g O_2/g substance
ThOD	3.17 g O_2/g substance
BOD (% of ThOD)	45.4 (20 days)

toluene (108-88-3)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	2.15 g O_2/g substance
Chemical oxygen demand (COD)	2.52 g O_2/g substance

toluene (108-88-3)	
ThOD	3.13 g O_2/g substance
BOD (% of ThOD)	0.69
1,4-dichlorobenzene (106-46-7)	
Persistence and degradability	Readily biodegradable in water. Non degradable in the soil. Adsorbs into the soil.
ThOD	1.52 g O_2/g substance
BOD (% of ThOD)	0.65 (Calculated value)
Methylene Chloride (75-09-2)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil.
1,2-dichloroethane (107-06-2)	
Persistence and degradability	Not readily biodegradable in water. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.0014 g O_2/g substance
Chemical oxygen demand (COD)	1.025 g O_2/g substance
ThOD	0.98 g O_2/g substance
BOD (% of ThOD)	0.001 (Calculated value)
1,2-dichloropropane (78-87-5)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water. Non degradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.19 g O_2/g substance
Chemical oxygen demand (COD)	0.84 g O_2/g substance
ThOD	1.13 g O_2/g substance
cis-1,3-Dichloropropene (10061-01-5)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil.
1,3-dichloropropene, trans- (10061-02-6)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil.
trichloroethylene (79-01-6)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Biodegradable in the soil under anaerobic conditions.
carbon tetrachloride (56-23-5)	
Persistence and degradability	Not readily biodegradable in water. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0 g O_2/g substance
Chemical oxygen demand (COD)	0.001 g O_2/g substance
ThOD	0.21 g O_2/g substance
BOD (% of ThOD)	0
1,1,2,2-tetrachloroethane (79-34-5)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. No (test)data on mobility of the substance available.
tetrachloroethylene (127-18-4)	
Persistence and degradability	Not readily biodegradable in water. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	0.06 g O_2/g substance
ThOD	0.39 g O_2/g substance
BOD (% of ThOD)	0.15
naphthalene (91-20-3)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0 g O_2/g substance
Chemical oxygen demand (COD)	0.22 g O_2/g substance
ThOD	2.99 g O_2/g substance
1,1,1,2-tetrachloroethane (630-20-6)	
Persistence and degradability	Readily biodegradable in water. No (test)data on mobility of the substance available.

Isopropylbenzene (98-82-8)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.28 g O_2/g substance
Chemical oxygen demand (COD)	2.42 g O_2/g substance
ThOD	3.2 g O_2/g substance
BOD (% of ThOD)	0.4

styrene (100-42-5)	
Persistence and degradability	Readily biodegradable in water. Non degradable in the soil. Low potential for adsorption in soil. Photodegradation in the air.
Chemical oxygen demand (COD)	2.8 g O_2/g substance
ThOD	3.07 g O_2/g substance
BOD (% of ThOD)	0.42

tetrahydrofuran (109-99-9)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Chemical oxygen demand (COD)	1.855 g O_2/g substance
ThOD	2.44 g O_2/g substance

allyl chloride (107-05-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.23 g O_2/g substance
Chemical oxygen demand (COD)	0.86 g O_2/g substance
ThOD	1.7 g O_2/g substance
BOD (% of ThOD)	0.14 (5 days; Calculated value)

iodomethane (74-88-4)	
Persistence and degradability	Not readily biodegradable in water. Highly mobile in soil. Photolysis in the air.

acrylonitrile, inhibited (107-13-1)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water. Biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.72 g O_2/g substance
Chemical oxygen demand (COD)	1.39 g O_2/g substance
ThOD	3.17 g O_2/g substance
BOD (% of ThOD)	0.22

methyl acetate (79-20-9)	
Persistence and degradability	Readily biodegradable in water. Inherently biodegradable. Highly mobile in soil.

methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O_2/g substance
Chemical oxygen demand (COD)	1.42 g O_2/g substance
ThOD	1.5 g O_2/g substance
BOD (% of ThOD)	0.8 (Literature study)

tert-Butanol (75-65-0)	
Persistence and degradability	Not readily biodegradable in water. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0 g O_2/g substance
Chemical oxygen demand (COD)	2.18 g O_2/g substance
ThOD	2.59 g O_2/g substance
BOD (% of ThOD)	0

12.3. Bioaccumulative potential

Revised 8260 Calibration Mix	
Bioaccumulative potential	Not established.

bromodichloromethane (75-27-4)	
Log Pow	1.88 - 2.24

bromodichloromethane (75-27-4)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

chloroform (67-66-3)	
BCF fish 1	4.1 - 13 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)
BCF fish 2	1.4 - 4.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)
Log Pow	1.97 (Experimental value; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,2-dibromo-3-chloropropane (96-12-8)	
BCF fish 1	3.6 - 19 (BCF)
Log Pow	2.43 - 2.96
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,2-Dibromoethane (106-93-4)	
BCF fish 1	1.6 - 14.9 (BCF; 6 weeks; Cyprinus carpio)
BCF fish 2	6 (BCF)
BCF other aquatic organisms 1	2.8 (BCF)
Log Pow	1.93 (Experimental value; Equivalent or similar to OECD 107)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,2,3-trichloropropane (96-18-4)	
BCF fish 1	5.3 - 13 (BCF)
Log Pow	2.27 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

benzene (71-43-2)	
BCF fish 1	19 (BCF)
BCF fish 2	< 10 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 3 days; Leuciscus idus; Flow-through system; Fresh water; Experimental value)
BCF other aquatic organisms 1	30 (BCF; 24 h; Chlorella sp.)
Log Pow	2.13 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

ethylbenzene (100-41-4)	
BCF fish 1	1 (BCF; Other; 6 weeks; Oncorhynchus kisutch; Flow-through system; Salt water; Literature study)
BCF fish 2	15 - 79 (BCF)
BCF other aquatic organisms 1	4.68 (BCF)
Log Pow	3.15 (Experimental value; 3.6; Experimental value; EU Method A.8: Partition Coefficient; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

toluene (108-88-3)	
BCF fish 2	90 (BCF; 72 h; Leuciscus idus; Static system; Fresh water)
Log Pow	2.73 (Experimental value; Other; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,4-dichlorobenzene (106-46-7)	
BCF fish 1	100 (BCF)
BCF fish 2	214 - 720 (BCF)
BCF other aquatic organisms 1	20 (BCF)
Log Pow	3.39 - 3.62 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).

Methylene Chloride (75-09-2)	
BCF fish 1	2 - 40 (BCF)
Log Pow	1.25 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,2-dichloroethane (107-06-2)	
BCF fish 1	2 (BCF; 336 h)
Log Pow	1.45 - 1.48 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,2-dichloropropane (78-87-5)	
BCF fish 1	0.5 - 7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)
Log Pow	1.99 - 2.28 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

cis-1,3-Dichloropropene (10061-01-5)	
Log Pow	2.06
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

1,3-dichloropropene, trans- (10061-02-6)	
Log Pow	2
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

trichloroethylene (79-01-6)	
BCF fish 1	17 (BCF; 336 h)
BCF fish 2	90 (BCF; 72 h; Leuciscus idus)
BCF other aquatic organisms 1	3440 (BCF; 120 h)
BCF other aquatic organisms 2	4270 (BCF; 120 h)
Log Pow	2.29 - 2.42 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

carbon tetrachloride (56-23-5)	
BCF fish 1	17.4 (BCF)
BCF fish 2	3.1 - 11 (BCF)
BCF other aquatic organisms 1	300 (BCF; 24 h; Chlorella sp.)
BCF other aquatic organisms 2	20 - 114 (BCF)
Log Pow	2.75 - 2.83 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,1,2,2-tetrachloroethane (79-34-5)	
BCF fish 1	4.1 - 13.2 (BCF; Cyprinus carpio)
Log Pow	2.39 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

tetrachloroethylene (127-18-4)	
BCF fish 2	25.8 - 77.1 (BCF; 8 weeks)
Log Pow	3.4 (Experimental value; 2.53; Experimental value; Equivalent or similar to OECD 107; 23 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

naphthalene (91-20-3)	
BCF fish 1	23 - 168 (BCF; 8 weeks; Cyprinus carpio)
Log Pow	3.3 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,1,1,2-tetrachloroethane (630-20-6)	
Log Pow	2.93 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Isopropylbenzene (98-82-8)	
BCF fish 1	35.5 (BCF)
BCF other aquatic organisms 1	94.69 (BCF; BCFBAF v3.00)
Log Pow	3.66 (Experimental value; 3.55; Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 23 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

styrene (100-42-5)	
BCF fish 1	35.5 (BCF)

styrene (100-42-5)	
Log Pow	2.96 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

tetrahydrofuran (109-99-9)	
Log Pow	0.45 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

allyl chloride (107-05-1)	
BCF fish 1	< 5.6 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio)
Log Pow	2.1 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

iodomethane (74-88-4)	
Log Pow	1.57 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

acrylonitrile, inhibited (107-13-1)	
BCF fish 1	48 (BCF; 672 h; Lepomis macrochirus)
Log Pow	-0.9 - 0.3 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

methyl acetate (79-20-9)	
BCF fish 1	< 1 (BCF)
Log Pow	0.37 (Calculated; KOWWIN; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

methanol (67-56-1)	
BCF fish 1	< 10 (BCF; 72 h; Leuciscus idus)
Log Pow	-0.77 (Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

tert-Butanol (75-65-0)	
BCF fish 1	< 5 (BCF)
BCF fish 2	1 (BCF)
Log Pow	0.35 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

chloroform (67-66-3)	
Surface tension	0.0271 N/m (20 °C)
Log Koc	Koc,Other; 86.7-367; Experimental value; log Koc; Other; 1.94-2.56; Experimental value
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

1,2-Dibromoethane (106-93-4)	
Surface tension	0.038 N/m (20 °C)
Log Koc	log Koc,OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC); 0.314; Experimental value; GLP

1,2,3-trichloropropane (96-18-4)	
Surface tension	0.038 N/m (20 °C)

benzene (71-43-2)	
Surface tension	0.029 N/m (20 °C)
Log Koc	Koc,134.1; QSAR

ethylbenzene (100-41-4)	
Surface tension	0.029 N/m
Log Koc	log Koc,PCKOCWIN v1.66; 2.71; Calculated value; Koc; PCKOCWIN v1.66; 517.8; Calculated value

ethylbenzene (100-41-4)	
Ecology - soil	Low potential for adsorption in soil. Toxic to soil organisms.

toluene (108-88-3)	
Surface tension	0.03 N/m (20 °C)

1,4-dichlorobenzene (106-46-7)	
Surface tension	0.03 N/m (55 °C)

Methylene Chloride (75-09-2)	
Surface tension	0.028 N/m (20 °C)
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

1,2-dichloroethane (107-06-2)	
Surface tension	0.032 N/m (20 °C)
Log Koc	log Koc,1.52; Koc; 121

1,2-dichloropropane (78-87-5)	
Surface tension	0.029 N/m (20 °C)
Log Koc	log Koc,Other; 1.72; Estimated value
Ecology - soil	Highly mobile in soil.

trichloroethylene (79-01-6)	
Surface tension	0.03 N/m

carbon tetrachloride (56-23-5)	
Surface tension	0.027 N/m (20 °C)
Ecology - soil	Soil contaminant. May be harmful to plant growth, blooming and fruit formation.

1,1,2,2-tetrachloroethane (79-34-5)	
Surface tension	0.035 N/m (20 °C)

tetrachloroethylene (127-18-4)	
Surface tension	0.0313 N/m (20 °C)
Log Koc	Koc,141; Experimental value; log Koc; 2.15; Experimental value

naphthalene (91-20-3)	
Surface tension	0.03 N/m (100 °C)

1,1,1,2-tetrachloroethane (630-20-6)	
Surface tension	0.033 N/m (20 °C)

Isopropylbenzene (98-82-8)	
Log Koc	Koc,884; Calculated value; log Koc; 2.946; Calculated value

styrene (100-42-5)	
Surface tension	0.032 N/m (19 °C)
Log Koc	Koc,352; Estimated value; log Koc; 2.55; Estimated value
Ecology - soil	Low potential for adsorption in soil.

tetrahydrofuran (109-99-9)	
Surface tension	0.028 N/m
Log Koc	log Koc,1.26 - 1.37; Experimental value

allyl chloride (107-05-1)	
Surface tension	0.023 N/m (20 °C)
Log Koc	log Koc,SRC PCKOCWIN v2.0; 1.67; Calculated value

iodomethane (74-88-4)	
Surface tension	0.026 N/m (43 °C)
Log Koc	log Koc,OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method; 1.15 - 1.79; Experimental value; GLP

acrylonitrile, inhibited (107-13-1)	
Surface tension	0.027 N/m (20 °C)

methyl acetate (79-20-9)	
Surface tension	0.024 N/m (20 °C)

methyl acetate (79-20-9)	
Log Koc	log Koc,OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC); 0.18; Experimental value; GLP

methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)
Log Koc	Koc,PCKOCWIN v1.66; 1; Calculated value

tert-Butanol (75-65-0)	
Surface tension	0.02 N/m (25 °C)

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion.

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

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1992 Flammable liquids, toxic, n.o.s. (methanol ; allyl chloride ; acrylonitrile, inhibited ; 1,2-dibromo-3-chloropropane ; benzene ; toluene ; 1,2-dichloropropane ; trichloroethylene), 3 (6.1), I

UN-No.(DOT) : 1992

DOT NA no. : UN1992

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

methanol ; allyl chloride ; acrylonitrile, inhibited ; 1,2-dibromo-3-chloropropane ; benzene ; toluene ; 1,2-dichloropropane ; trichloroethylene

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

Hazard labels (DOT) : 3 - Flammable liquid
6.1 - Poison

DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : I - Great Danger

DOT Special Provisions (49 CFR 172.102) : T14 - 6 6 mm Prohibited 178.275(g)(3).
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
TP13 - Self-contained breathing apparatus must be provided when this hazardous material is transported by sea.
TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : None

DOT Packaging Non Bulk (49 CFR 173.xxx) : 201

DOT Packaging Bulk (49 CFR 173.xxx) : 243

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	Forbidden
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	30 L
DOT Vessel Stowage Location	:	E - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length, but is prohibited from carriage on passenger vessels in which the limiting number of passengers is exceeded.
DOT Vessel Stowage Other	:	40 - Stow ‘‘clear of living quarters’’

Additional information

Emergency Response Guide (ERG) Number	:	131
Other information	:	No supplementary information available.

ADR

Transport document description	:	UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), I, (C/E)
Packing group (ADR)	:	I
Class (ADR)	:	3 - Flammable liquid
Hazard identification number (Kemler No.)	:	336
Classification code (ADR)	:	FT1
Hazard labels (ADR)	:	3 - Flammable liquids 6.1 - Toxic substances

Orange plates	:	336 1992
Tunnel restriction code (ADR)	:	C/E
LQ	:	0
Excepted quantities (ADR)	:	E0

Transport by sea

UN-No. (IMDG)	:	1992
Proper Shipping Name (IMDG)	:	FLAMMABLE LIQUID, TOXIC, N.O.S.
Class (IMDG)	:	3 - Flammable liquids
Packing group (IMDG)	:	I - substances presenting high danger

Air transport

UN-No. (IATA)	:	1992
Proper Shipping Name (IATA)	:	Flammable liquid, toxic, n.o.s.
Class (IATA)	:	3 - Flammable Liquids
Packing group (IATA)	:	I - Great Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

bromodichloromethane (75-27-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 313 - Emission Reporting	1 %

chloroform (67-66-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	10 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	10000 lb
SARA Section 313 - Emission Reporting	1 %

1,2-dibromo-3-chloropropane (96-12-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1 lb
SARA Section 313 - Emission Reporting	1 %

ethylene dibromide (106-93-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1 lb
SARA Section 313 - Emission Reporting	1 %

1,2,3-trichloropropane (96-18-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 %

benzene (71-43-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	10 lb
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	1 %

ethylbenzene (100-41-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb
SARA Section 313 - Emission Reporting	1 %

toluene (108-88-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb
SARA Section 313 - Emission Reporting	1 %

1,4-dichlorobenzene (106-46-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	1 %

dichloromethane (75-09-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	R - R - indicates a substance that is the subject of a TSCA section 6 risk management rule.
CERCLA RQ	1000 lb
SARA Section 313 - Emission Reporting	1 %

1,2-dichloroethane (107-06-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

1,2-dichloroethane (107-06-2)	
CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	1 %

1,2-dichloropropane (78-87-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb
SARA Section 313 - Emission Reporting	1 %

1,3-dichloropropene, (Z)- (10061-01-5)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

1,3-dichloropropene, trans- (10061-02-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	PMN - PMN - indicates a commenced PMN substance.
SARA Section 313 - Emission Reporting	1 %

trichloroethylene (79-01-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	R - R - indicates a substance that is the subject of a TSCA section 6 risk management rule.
CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	1 %

carbon tetrachloride (56-23-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	10 lb
SARA Section 313 - Emission Reporting	1 %

1,1,2,2-tetrachloroethane (79-34-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	1 %

tetrachloroethylene (127-18-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	1 %

naphthalene (91-20-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	1 %

1,1,1,2-tetrachloroethane (630-20-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	1 %

cumene (98-82-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 313 - Emission Reporting	1 %

styrene (100-42-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

styrene (100-42-5)	
CERCLA RQ	1000 lb
SARA Section 313 - Emission Reporting	1 %

tetrahydrofuran (109-99-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
CERCLA RQ	1000 lb

allyl chloride (107-05-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb
SARA Section 313 - Emission Reporting	1 %

iodomethane (74-88-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	1 %

acrylonitrile, inhibited (107-13-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	TP - TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule.
CERCLA RQ	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	10000 lb
SARA Section 313 - Emission Reporting	1 %

methyl acetate (79-20-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

methanol (67-56-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 313 - Emission Reporting	1 %

2-methyl-2-propanol (75-65-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 %

15.2. International regulations

CANADA

bromodichloromethane (75-27-4)
Listed on the Canadian NDSL (Non-Domestic Substances List)

chloroform (67-66-3)
Listed on the Canadian DSL (Domestic Substances List)

1,2-dibromo-3-chloropropane (96-12-8)
Listed on the Canadian NDSL (Non-Domestic Substances List)

ethylene dibromide (106-93-4)
Listed on the Canadian DSL (Domestic Substances List)

1,2,3-trichloropropane (96-18-4)
Listed on the Canadian DSL (Domestic Substances List)

benzene (71-43-2)
Listed on the Canadian DSL (Domestic Substances List)

ethylbenzene (100-41-4)
Listed on the Canadian DSL (Domestic Substances List)

toluene (108-88-3)
Listed on the Canadian DSL (Domestic Substances List)

1,4-dichlorobenzene (106-46-7)
Listed on the Canadian DSL (Domestic Substances List)

dichloromethane (75-09-2)
Listed on the Canadian DSL (Domestic Substances List)

1,2-dichloroethane (107-06-2)
Listed on the Canadian DSL (Domestic Substances List)

1,2-dichloropropane (78-87-5)
Listed on the Canadian DSL (Domestic Substances List)

1,3-dichloropropene, (Z)- (10061-01-5)

1,3-dichloropropene, trans- (10061-02-6)
Listed on the Canadian NDSL (Non-Domestic Substances List)

trichloroethylene (79-01-6)
Listed on the Canadian DSL (Domestic Substances List)

carbon tetrachloride (56-23-5)
Listed on the Canadian DSL (Domestic Substances List)

1,1,2,2-tetrachloroethane (79-34-5)
Listed on the Canadian DSL (Domestic Substances List)

tetrachloroethylene (127-18-4)
Listed on the Canadian DSL (Domestic Substances List)

naphthalene (91-20-3)
Listed on the Canadian DSL (Domestic Substances List)

1,1,1,2-tetrachloroethane (630-20-6)
Listed on the Canadian DSL (Domestic Substances List)

cumene (98-82-8)
Listed on the Canadian DSL (Domestic Substances List)

styrene (100-42-5)
Listed on the Canadian DSL (Domestic Substances List)

tetrahydrofuran (109-99-9)
Listed on the Canadian DSL (Domestic Substances List)

allyl chloride (107-05-1)
Listed on the Canadian DSL (Domestic Substances List)

iodomethane (74-88-4)
Listed on the Canadian DSL (Domestic Substances List)

acrylonitrile, inhibited (107-13-1)
Listed on the Canadian DSL (Domestic Substances List)

methyl acetate (79-20-9)
Listed on the Canadian DSL (Domestic Substances List)

methanol (67-56-1)
Listed on the Canadian DSL (Domestic Substances List)

2-methyl-2-propanol (75-65-0)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

chloroform (67-66-3)

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

ethylene dibromide (106-93-4)

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

benzene (71-43-2)

ethylbenzene (100-41-4)

toluene (108-88-3)

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

dichloromethane (75-09-2)

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

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

1,3-dichloropropene, (Z)- (10061-01-5)

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

trichloroethylene (79-01-6)

carbon tetrachloride (56-23-5)

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

tetrachloroethylene (127-18-4)

naphthalene (91-20-3)

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

cumene (98-82-8)

styrene (100-42-5)

tetrahydrofuran (109-99-9)

allyl chloride (107-05-1)

iodomethane (74-88-4)

acrylonitrile, inhibited (107-13-1)

methyl acetate (79-20-9)

methanol (67-56-1)

2-methyl-2-propanol (75-65-0)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 1	H224
Acute Tox. 3 (Oral)	H301
Acute Tox. 3 (Dermal)	H311
Eye Irrit. 2	H319
Skin Sens. 1	H317
Muta. 1B	H340
Carc. 1A	H350
STOT SE 1	H370
STOT RE 2	H373
Aquatic Chronic 2	H411
Ozone 1	H420

Full text of H statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc.Cat.1; R45
Muta.Cat.2; R46
F+; R12
T; R23/24/25
T; R39/23/24/25
Xn; R48/20
R43
N; R51/53
N; R59
R19

Full text of R-phrases: see section 16

15.2.2. National regulations

bromodichloromethane (75-27-4)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)

chloroform (67-66-3)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

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

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

ethylene dibromide (106-93-4)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

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

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)

benzene (71-43-2)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

ethylbenzene (100-41-4)

Listed on IARC (International Agency for Research on Cancer)
Listed on EPA Hazardous Air Pollutant (HAPS)

toluene (108-88-3)

Listed on EPA Hazardous Air Pollutant (HAPS)

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

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

dichloromethane (75-09-2)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

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

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

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

Listed on IARC (International Agency for Research on Cancer)
Listed on EPA Hazardous Air Pollutant (HAPS)

1,3-dichloropropene, (Z)- (10061-01-5)

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

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

trichloroethylene (79-01-6)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

carbon tetrachloride (56-23-5)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

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

Listed on IARC (International Agency for Research on Cancer)
Listed on EPA Hazardous Air Pollutant (HAPS)

tetrachloroethylene (127-18-4)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

naphthalene (91-20-3)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

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

Listed on IARC (International Agency for Research on Cancer)

cumene (98-82-8)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

styrene (100-42-5)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

tetrahydrofuran (109-99-9)

Listed on IARC (International Agency for Research on Cancer)

allyl chloride (107-05-1)

Listed on EPA Hazardous Air Pollutant (HAPS)

iodomethane (74-88-4)

Listed on EPA Hazardous Air Pollutant (HAPS)

acrylonitrile, inhibited (107-13-1)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)

methyl acetate (79-20-9)

methanol (67-56-1)

Listed on EPA Hazardous Air Pollutant (HAPS)

2-methyl-2-propanol (75-65-0)

15.3. US State regulations

Revised 8260 Calibration Mix()	
U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

bromodichloromethane (75-27-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

chloroform (67-66-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	No	No	

1,2-dibromo-3-chloropropane (96-12-8)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	Yes	

ethylene dibromide (106-93-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	No	Yes	

1,2,3-trichloropropane (96-18-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

benzene (71-43-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	No	Yes	

ethylbenzene (100-41-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

toluene (108-88-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	No	

1,4-dichlorobenzene (106-46-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

dichloromethane (75-09-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

1,2-dichloroethane (107-06-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

1,2-dichloropropane (78-87-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

1,3-dichloropropene, (Z)- (10061-01-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

1,3-dichloropropene, trans- (10061-02-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

trichloroethylene (79-01-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	No	Yes	

carbon tetrachloride (56-23-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

1,1,2,2-tetrachloroethane (79-34-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

tetrachloroethylene (127-18-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

naphthalene (91-20-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

1,1,1,2-tetrachloroethane (630-20-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

cumene (98-82-8)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

styrene (100-42-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

tetrahydrofuran (109-99-9)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

allyl chloride (107-05-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

iodomethane (74-88-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

acrylonitrile, inhibited (107-13-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

methyl acetate (79-20-9)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

methanol (67-56-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	No	

2-methyl-2-propanol (75-65-0)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Hazard Rating

PHV SDS US