# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

**Trichloromethane ≥99 %, DAB, BP, extra pure, stabilized**

article number: **6340**
Version: **GHS 4.0 en**
Replaces version of: 2022-12-20
Version: (GHS 3)

date of compilation: 2018-08-22
Revision: 2024-03-04

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

### 1.1 Product identifier

| | |
|---|---|
| Identification of the substance | **Trichloromethane** ≥99 %, DAB, BP, extra pure, stabilized |
| Article number | 6340 |
| CAS number | 67-66-3 |
| Alternative name(s) | Chloroform |

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

| | |
|---|---|
| Relevant identified uses: | Laboratory chemical<br>Laboratory and analytical use |
| Uses advised against: | Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). Food, drink and animal feeding-stuffs. |

### 1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co. KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

**Telephone:**+49 (0) 721 - 56 06 0
**Telefax:** +49 (0) 721 - 56 06 149
**e-mail:** sicherheit@carlroth.de
**Website:** www.carlroth.de

| | |
|---|---|
| Competent person responsible for the safety data sheet: | Department Health, Safety and Environment |
| **e-mail (competent person):** | **sicherheit@carlroth.de** |

### 1.4 Emergency telephone number

| Name | Street | Postal code/city | Telephone | Website |
|---|---|---|---|---|
| NSW Poisons Information Centre Childrens Hospital | Hawkesbury Road | 2145 West-mead, NSW | 131126 | |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification acc. to GHS**

| Section | Hazard class | Cat-egory | Hazard class and category | Hazard statement |
|---|---|---|---|---|
| 3.1O | Acute toxicity (oral) | 4 | Acute Tox. 4 | H302 |
| 3.1I | Acute toxicity (inhal.) | 3 | Acute Tox. 3 | H331 |
| 3.2 | Skin corrosion/irritation | 2 | Skin Irrit. 2 | H315 |
| 3.3 | Serious eye damage/eye irritation | 2 | Eye Irrit. 2 | H319 |
| 3.6 | Carcinogenicity | 2 | Carc. 2 | H351 |
| 3.7 | Reproductive toxicity | 2 | Repr. 2 | H361d |
| 3.9 | Specific target organ toxicity - repeated exposure | 1 | STOT RE 1 | H372 |

For full text of abbreviations: see SECTION 16

**The most important adverse physicochemical, human health and environmental effects**

Delayed or immediate effects can be expected after short or long-term exposure.

## 2.2 Label elements

**Labelling**

**Signal word** **Danger**

**Pictograms**

GHS06, GHS08

**Hazard statements**

| | |
|---|---|
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H331 | Toxic if inhaled |
| H351 | Suspected of causing cancer |
| H361d | Suspected of damaging the unborn child |
| H372 | Causes damage to organs (liver, kidney) through prolonged or repeated exposure |

**Precautionary statements**

**Precautionary statements - prevention**

| | |
|---|---|
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray |
| P280 | Wear protective gloves |

**Precautionary statements - response**

| | |
|---|---|
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing |
| P311 | Call a POISON CENTER or doctor/physician |

**Precautionary statements - storage**

P403+233 Store in a well-ventilated place. Keep container tightly closed

**Precautionary statements - disposal**

P501 Dispose of contents/container to industrial combustion plant

For professional users only

### 2.3 Other hazards

**Results of PBT and vPvB assessment**

According to the results of its assessment, this substance is not a PBT or a vPvB.

**Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

| | |
|---|---|
| Name of substance | Trichloromethane |
| Molecular formula | $CHCl_3$ |
| Molar mass | 119.4 $^{g}/_{mol}$ |
| CAS No | 67-66-3 |

**To stabilise:**

| Name of substance | Identifier | Wt% |
|---|---|---|
| Ethanol | CAS No<br>64-17-5 | < 2.5 |

**Remarks**

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General notes**

Self-protection of the first aider.

**Following inhalation**

Call a physician immediately. If breathing is irregular or stopped, administer artificial respiration.

**Following skin contact**

Rinse skin with water/shower. In case of skin irritation, consult a physician.

**Following eye contact**

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

**Following ingestion**

Rinse mouth with water (only if the person is conscious). In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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

Irritation, Cough, Dyspnoea, Spasms, Nausea, Vomiting, Headache, Vertigo, Dizziness, Unconsciousness, Loss of righting reflex, and ataxia

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

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**

co-ordinate firefighting measures to the fire surroundings!
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide ($CO_2$)

**Unsuitable extinguishing media**

water jet

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

Non-combustible.

**Hazardous combustion products**

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide ($CO_2$), Hydrogen chloride (HCl), Hydrogen halides (HX)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel**

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Provide adequate ventilation.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

### 6.3 Methods and material for containment and cleaning up

**Advice on how to contain a spill**

Covering of drains.

**Advice on how to clean up a spill**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

**Other information relating to spills and releases**

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Use extractor hood (laboratory). Avoid exposure. When not in use, keep containers tightly closed.

**Advice on general occupational hygiene**

Wash hands before breaks and after work.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight.

**Incompatible substances or mixtures**

Observe hints for combined storage.

**Consideration of other advice:**

Store locked up.

**Ventilation requirements**

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted.

**Specific designs for storage rooms or vessels**

Recommended storage temperature: 15 – 25 °C

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**National limit values**

**Occupational exposure limit values (Workplace Exposure Limits)**

| Country | Name of agent | CAS No | Identifier | TWA [ppm] | TWA [mg/m³] | STEL [ppm] | STEL [mg/m³] | Ceiling-C [ppm] | Ceiling-C [mg/m³] | Notation | Source |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AU | chloroform (trichloromethane) | 67-66-3 | WES | 2 | 10 | | | | | H | WES |

**Notation**

| | |
|---|---|
| Ceiling-C | Ceiling value is a limit value above which exposure should not occur |
| H | Absorbed through the skin |
| STEL | Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified) |
| TWA | Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified) |

### Human health values

| Relevant DNELs and other threshold levels | | | | |
|---|---|---|---|---|
| **Endpoint** | **Threshold level** | **Protection goal, route of exposure** | **Used in** | **Exposure time** |
| DNEL | 2.5 mg/m³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| DNEL | 333 mg/m³ | human, inhalatory | worker (industry) | acute - systemic effects |
| DNEL | 2.5 mg/m³ | human, inhalatory | worker (industry) | chronic - local effects |
| DNEL | 0.94 mg/kg bw/ day | human, dermal | worker (industry) | chronic - systemic effects |

### Environmental values

| Relevant PNECs and other threshold levels | | | | |
|---|---|---|---|---|
| **End-point** | **Threshold level** | **Organism** | **Environmental com-partment** | **Exposure time** |
| PNEC | 0.146 $^{mg}/_{l}$ | aquatic organisms | freshwater | short-term (single instance) |
| PNEC | 0.015 $^{mg}/_{l}$ | aquatic organisms | marine water | short-term (single instance) |
| PNEC | 0.048 $^{mg}/_{l}$ | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| PNEC | 0.45 $^{mg}/_{kg}$ | aquatic organisms | freshwater sediment | short-term (single instance) |
| PNEC | 0.09 $^{mg}/_{kg}$ | aquatic organisms | marine sediment | short-term (single instance) |
| PNEC | 0.56 $^{mg}/_{kg}$ | terrestrial organisms | soil | short-term (single instance) |

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)

### Eye/face protection

Use safety goggle with side protection.

### Skin protection

**• hand protection**

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

**• type of material**

FKM (fluoro rubber)

**• material thickness**

≥0,4 mm

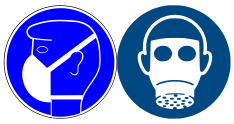
**• breakthrough times of the glove material**

>480 minutes (permeation: level 6)

**• other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

**Respiratory protection**



Respiratory protection necessary at: Aerosol or mist formation. Type: AX (gas filters and combined filters against low-boiling point organic compounds, colour code: Brown).

**Environmental exposure controls**

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | liquid |
| Colour | colourless |
| Odour | characteristic |
| Odour threshold | 85 – 202 ppm |
| Melting point/freezing point | -63 °C |
| Boiling point or initial boiling point and boiling range | 61 °C at 1,013 hPa |
| Flammability | non-combustible |
| Lower and upper explosion limit | not determined |
| Flash point | not determined |
| Auto-ignition temperature | not determined |
| Decomposition temperature | not relevant |
| pH (value) | not determined |
| Kinematic viscosity | 0.38 $^{mm^2}/_{s}$ at 20 °C |
| Dynamic viscosity | 0.56 mPa s at 20 °C |
| Solubility(ies) | |
| Water solubility | 8.7 $^{g}/_{l}$ at 23 °C (ECHA) |

| | |
|---|---|
| Partition coefficient | |
| Partition coefficient n-octanol/water (log value): | 1.97 (25 °C) (Experimental data) |
| Soil organic carbon/water (log KOC) | 1.8 – 2.6 (ECHA) |
| Vapour pressure | 211 hPa at 20 °C |
| Density and/or relative density | |
| Density | 1.48 $^{g}/_{cm^3}$ at 20 °C |
| Relative vapour density | 4.25 (air = 1) |
| Particle characteristics | not relevant (liquid) |
| Other safety parameters | |
| Oxidising properties | none |

### 9.2 Other information

| | |
|---|---|
| Information with regard to physical hazard classes: | hazard classes acc. to GHS (physical hazards): not relevant |
| Other safety characteristics: | There is no additional information. |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

**Violent reaction with:** strong oxidiser, Acetone, Alkali metals, Alkaline earth metal, Mineral acids, Strong alkali, Metal powder, Nitro compound, Peroxides,
=> Explosive properties

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

different plastics, Rubber articles, Light metals

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

# SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

### Classification acc. to GHS

### Acute toxicity

Harmful if swallowed. Toxic if inhaled.

**Acute toxicity**

| Exposure route | Endpoint | Value | Species | Method | Source |
|---|---|---|---|---|---|
| oral | LD50 | 908 $^{mg}/_{kg}$ | rat | | ECHA |

**Acute toxicity of components**

| Name of substance | CAS No | Exposure route | Endpoint | Value | Species |
|---|---|---|---|---|---|
| Ethanol | 64-17-5 | oral | LD50 | 10,470 $^{mg}/_{kg}$ | rat |
| Ethanol | 64-17-5 | inhalation: vapour | LC50 | 124.7 $^{mg}/_{l}$/4h | rat |

### Skin corrosion/irritation

Causes skin irritation.

### Serious eye damage/eye irritation

Causes serious eye irritation.

### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Suspected of causing cancer.

### Reproductive toxicity

Suspected of damaging the unborn child.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Causes damage to organs (liver, kidney) through prolonged or repeated exposure.

| Hazard category | Target organ | Exposure route |
|---|---|---|
| 1 | liver | if exposed |
| 1 | kidney | if exposed |

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

**Symptoms related to the physical, chemical and toxicological characteristics**

**• If swallowed**

vomiting, nausea

**• If in eyes**

Causes serious eye irritation

**• If inhaled**

vertigo, dizziness, deficits in perception and coordination, reaction time, or sleepiness, loss of righting reflex, and ataxia, cough, headache, poisoning effect on central nervous system can cause convulsions, laboured breathing and loss of consciousness

**• If on skin**

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation), causes skin irritation

**• Other information**

none

### 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

## SECTION 12: Ecological information

### 12.1 Toxicity

Harmful to aquatic life.

**Aquatic toxicity (acute)**

| Endpoint | Value | Species | Source | Exposure time |
|---|---|---|---|---|
| EC50 | 152.5 $^{mg}/_{l}$ | aquatic invertebrates | ECHA | 48 h |
| ErC50 | 13.3 $^{mg}/_{l}$ | algae | ECHA | 72 h |

**Aquatic toxicity (acute) of components**

| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
|---|---|---|---|---|---|
| Ethanol | 64-17-5 | LC50 | 15,400 $^{mg}/_{l}$ | fish | 96 h |
| Ethanol | 64-17-5 | EC50 | >10,000 $^{mg}/_{l}$ | aquatic invertebrates | 48 h |
| Ethanol | 64-17-5 | ErC50 | 22,000 $^{mg}/_{l}$ | algae | 96 h |

**Aquatic toxicity (chronic)**

| Endpoint | Value | Species | Source | Exposure time |
|---|---|---|---|---|
| EC50 | 0.48 $^{mg}/_{l}$ | microorganisms | ECHA | 24 h |

| Aquatic toxicity (chronic) of components | | | | | |
|---|---|---|---|---|---|
| **Name of sub-stance** | **CAS No** | **Endpoint** | **Value** | **Species** | **Exposure time** |
| Ethanol | 64-17-5 | LC50 | 1,806 $^{mg}/_{l}$ | aquatic invertebrates | 10 d |
| Ethanol | 64-17-5 | ErC50 | 675 $^{mg}/_{l}$ | algae | 4 d |

## 12.2 Persistence and degradability

Theoretical Oxygen Demand: 0.134 $^{mg}/_{mg}$
Theoretical Carbon Dioxide: 0.3686 $^{mg}/_{mg}$

### Biodegradation

Not readily biodegradable.

| Process of degradability | | |
|---|---|---|
| **Process** | **Degradation rate** | **Time** |
| biotic/abiotic | 0 % | 14 d |

| Degradability of components | | | | | | |
|---|---|---|---|---|---|---|
| **Name of substance** | **CAS No** | **Process** | **Degrada-tion rate** | **Time** | **Method** | **Source** |
| Ethanol | 64-17-5 | biotic/abiotic | 94 % | d | | |
| Ethanol | 64-17-5 | oxygen deple-tion | 69 % | 5 d | | ECHA |
| Ethanol | 64-17-5 | oxygen deple-tion | 84 % | 10 d | | ECHA |
| Ethanol | 64-17-5 | oxygen deple-tion | 97 % | 20 d | | ECHA |

## 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

| | |
|---|---|
| n-octanol/water (log KOW) | 1.97 (25 °C) (Experimental data) |

| Bioaccumulative potential of components | | | | |
|---|---|---|---|---|
| **Name of substance** | **CAS No** | **BCF** | **Log KOW** | **BOD5/COD** |
| Ethanol | 64-17-5 | | -0.31 | 0.6211 |

## 12.4 Mobility in soil

| | |
|---|---|
| Henry's law constant | 14,084 $^{Pa\ m^3}/_{mol}$ |
| The Organic Carbon normalised adsorption coefficient | 1.8 – 2.6 (ECHA) |

## 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Sewage disposal-relevant information**

Do not empty into drains.

**Waste treatment of containers/packagings**

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

**Relevant provisions relating to waste(Basel Convention)**

**Properties of waste which render it hazardous**

**H6.1** Poisonous (Acute)
**H11** Toxic (Delayed or chronic)

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

## SECTION 14: Transport information

### 14.1 UN number

| | |
|---|---|
| **UN RTDG** | UN 1888 |
| IMDG-Code | UN 1888 |
| ICAO-TI | UN 1888 |

### 14.2 UN proper shipping name

| | |
|---|---|
| **UN RTDG** | CHLOROFORM |
| IMDG-Code | CHLOROFORM |
| ICAO-TI | Chloroform |

### 14.3 Transport hazard class(es)

| | |
|---|---|
| **UN RTDG** | 6.1 |
| IMDG-Code | 6.1 |
| ICAO-TI | 6.1 |

### 14.4 Packing group

| | |
|---|---|
| **UN RTDG** | III |
| IMDG-Code | III |
| ICAO-TI | III |

**14.5 Environmental hazards** non-environmentally hazardous acc. to the dangerous goods regulations

**14.6 Special precautions for user**

There is no additional information.

**14.7 Transport in bulk according to IMO instruments**

The cargo is not intended to be carried in bulk.

**14.8 Information for each of the UN Model Regulations**

**Transport informationNational regulationsAdditional information(UN RTDG)**

| | |
|---|---|
| **UN number** | 1888 |
| **Class** | 6.1 |
| **Packing group** | III |
| **Danger label(s)** | 6.1 |

| | |
|---|---|
| **Special provisions (SP)** | -<br>UN RTDG |
| **Excepted quantities (EQ)** | E1<br>UN RTDG |
| **Limited quantities (LQ)** | 5 L<br>UN RTDG |
| **Emergency Action Code** | 2Z |

**International Maritime Dangerous Goods Code (IMDG) - Additional information**

| | |
|---|---|
| Proper shipping name | CHLOROFORM |
| Particulars in the shipper's declaration | UN1888, CHLOROFORM, 6.1, III |
| Marine pollutant | - |
| Danger label(s) | 6.1 |

| | |
|---|---|
| Special provisions (SP) | - |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 5 L |
| EmS | F-A, S-A |
| Stowage category | A |
| Segregation group | 10 - Liquid halogenated hydrocarbons |

**International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information**

| | |
|---|---|
| Proper shipping name | Chloroform |
| Particulars in the shipper's declaration | UN1888, Chloroform, 6.1, III |
| Danger label(s) | 6.1 |

| | |
|---|---|
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 2 L |

## SECTION 15: Regulatory information

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

There is no additional information.

**National regulations(Australia)**

**Australian Inventory of Chemical Substances(AICS)**

Substance is listed.

**Other information**

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

**National inventories**

| Country | Inventory | Status |
|---|---|---|
| AU | AIIC | substance is listed |
| CA | DSL | substance is listed |
| CN | IECSC | substance is listed |
| EU | ECSI | substance is listed |
| EU | REACH Reg. | substance is listed |
| JP | CSCL-ENCS | substance is listed |
| KR | KECI | substance is listed |
| MX | INSQ | substance is listed |
| NZ | NZIoC | substance is listed |
| PH | PICCS | substance is listed |
| TR | CICR | substance is listed |
| TW | TCSI | substance is listed |
| US | TSCA | substance is listed (ACTIVE) |
| VN | NCI | substance is listed |

**Legend**

| | |
|---|---|
| AIIC | Australian Inventory of Industrial Chemicals |
| CICR | Chemical Inventory and Control Regulation |
| CSCL-ENCS | List of Existing and New Chemical Substances (CSCL-ENCS) |
| DSL | Domestic Substances List (DSL) |
| ECSI | EC Substance Inventory (EINECS, ELINCS, NLP) |
| IECSC | Inventory of Existing Chemical Substances Produced or Imported in China |

**Legend**

| | |
|---|---|
| INSQ | National Inventory of Chemical Substances |
| KECI | Korea Existing Chemicals Inventory |
| NCI | National Chemical Inventory |
| NZIoC | New Zealand Inventory of Chemicals |
| PICCS | Philippine Inventory of Chemicals and Chemical Substances (PICCS) |
| REACH Reg. | REACH registered substances |
| TCSI | Taiwan Chemical Substance Inventory |
| TSCA | Toxic Substance Control Act |

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relev-ant |
|---|---|---|---|
| 2.2 | | Hazard statements:<br>change in the listing (table) | yes |
| 2.3 | | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%. | yes |
| 15.1 | | National inventories:<br>change in the listing (table) | yes |

### Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
|---|---|
| BCF | Bioconcentration factor |
| BOD | Biochemical Oxygen Demand |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| Ceiling-C | Ceiling value |
| COD | Chemical oxygen demand |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| DNEL | Derived No-Effect Level |
| EC50 | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval |
| ED | Endocrine disruptor |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| EmS | Emergency Schedule |
| ErC50 | ≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |

| Abbr. | Descriptions of used abbreviations |
|---|---|
| ICAO | International Civil Aviation Organization |
| ICAO-TI | Technical instructions for the safe transport of dangerous goods by air |
| IMDG | International Maritime Dangerous Goods Code |
| IMDG-Code | International Maritime Dangerous Goods Code |
| LC50 | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval |
| LD50 | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval |
| log KOW | n-Octanol/water |
| NLP | No-Longer Polymer |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| ppm | Parts per million |
| STEL | Short-term exposure limit |
| TWA | Time-weighted average |
| UN RTDG | UN Recommendations on the Transport of Dangerous Good |
| vPvB | Very Persistent and very Bioaccumulative |
| WES | Safe Work Australia: Workplace exposure standards for airborne contaminants |

### Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text |
|---|---|
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H351 | Suspected of causing cancer. |
| H361d | Suspected of damaging the unborn child. |
| H372 | Causes damage to organs (liver, kidney) through prolonged or repeated exposure. |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.