

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 30 Oct 2023

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

1,1,2,2-Tetrachloroethane

1.1. Catalog No.:

682310

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Acute toxicity, Inhalation (Category 2), H330
Acute toxicity, Dermal (Category 1), H310
Long-term (chronic) aquatic hazard (Category 2), H411

2.2. Label elements

2.2.1. Pictogram



2.2.2.

Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram
Signal word Danger

Hazard statement(s)

H310 + H330 Fatal in contact with skin or if inhaled.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P262 Do not get in eyes, on skin, or on clothing.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing.

P302 + P352 + P310 IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

Supplemental Hazard

Statements

none

For use in industrial installations only.

Reduced Labeling (<= 125 ml)

Pictogram

Signal word Danger

Hazard statement(s)

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Precautionary statement(s)

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P280 Wear protective gloves/ protective clothing.

P302 + P352 + P310 IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

Supplemental Hazard

Statements

none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Rapidly absorbed through skin.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1.1. Formula

C₂H₂Cl₄

3.1.2. Molecular Weight (g/mol)

167.85

3.1.3. CAS-No.

79-34-5

4. FIRST AID MEASURES

4.1 Description of first-aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Hydrogen chloride gas

Combustible.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in

suitable, closed containers for disposal.
6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387)

respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance Form: liquid, clear
 - b) Odor No data available
 - c) Odor Threshold No data available
 - d) pH No data available
 - e) Melting point/freezing point
Melting point/range: -43 °C - lit.
 - f) Initial boiling point and boiling range
147 °C - lit.
 - g) Flash point No data available
 - h) Evaporation rate No data available
 - i) Flammability (solid, gas)
No data available
 - j) Upper/lower flammability or explosive limits
No data available
 - k) Vapor pressure 10,7 hPa at 20,0 °C
 - l) Vapor density No data available
 - m) Density 1,586 g/cm³ at 25 °C - lit.
Relative density No data available
 - n) Water solubility No data available
 - o) Partition coefficient: n-octanol/water
log Pow: 5
 - p) Autoignition temperature
No data available
 - q) Decomposition temperature
No data available
 - r) Viscosity Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
 - s) Explosive properties No data available
 - t) Oxidizing properties No data available
- #### 9.2 Other safety information
- No data available

10. STABILITY AND REACTIVITY

- 10.1 Reactivity
No data available
- 10.2 Chemical stability
Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions
No data available
- 10.4 Conditions to avoid
No data available
- 10.5 Incompatible materials
Strong oxidizing agents, Sodium/sodium oxides, Strong bases, Potassium, Nitrates, 2,4-dinitrophenyl disulfide
- 10.6 Hazardous decomposition products
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - 200,0 mg/kg
LC50 Inhalation - Mouse - 2 h - 4.500 mg/m3
Inhalation: No data available
LD50 Dermal - 5 mg/kg
Skin corrosion/irritation
No data available
Serious eye damage/eye irritation
No data available
Respiratory or skin sensitization
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
No data available
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
11.2 Additional Information
RTECS: KI8575000
Headache, Nausea, Vomiting, Tremors, Incoordination., fatigue, Dizziness, Anorexia.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 20 mg/l - 96,0 h
Toxicity to daphnia
and other aquatic
invertebrates
Immobilization EC50 - Daphnia magna (Water flea) - 23 mg/l - 48 h
12.2 Persistence and degradability
No data available
12.3 Bioaccumulative potential
Bioaccumulation Lepomis macrochirus (Bluegill) - 14 d
- 0,00962 mg/l(1,1,2,2-tetrachloroethane)
Bioconcentration factor (BCF): 8
12.4 Mobility in soil
No data available
12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent,
bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at
levels of 0.1% or higher.
12.6 Other adverse effects
Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material
must be disposed of in accordance with the Directive on waste 2008/98/EC as well as
other national and local regulations. Leave chemicals in original containers. No mixing
with other waste. Handle uncleaned containers like the product itself.
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 1702 IMDG: 1702 IATA: 1702
14.2 UN proper shipping name
ADR/RID: 1,1,2,2-TETRACHLOROETHANE
IMDG: 1,1,2,2-TETRACHLOROETHANE
IATA: 1,1,2,2-Tetrachloroethane
14.3 Transport hazard class(es)
ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1
14.4 Packaging group
ADR/RID: II IMDG: II IATA: II
14.5 Environmental hazards
ADR/RID: yes IMDG Marine pollutant: yes IATA: no
14.6 Special precautions for user
No data available

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Authorisations and/or restrictions on use
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)
: 1,1,2,2-tetrachloroethane
National legislation
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
: ACUTE TOXIC
: ENVIRONMENTAL HAZARDS
: ACUTE TOXIC
: ENVIRONMENTAL HAZARDS
15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!