

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 02 Jun 2023

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

1.1. Product name:

Pentachloroethane

1.1. Catalog No.:

675819

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, Oral (Category 4), H302
Carcinogenicity (Category 2), H351
Specific target organ toxicity - repeated exposure (Category 1), H372
Chronic aquatic toxicity (Category 2), H411 Classification according to EU Directives 67/548/EEC or 1999/45/EC
R40
T Toxic R48/23
N Dangerous for the
environment
R51/53

2.2. Label elements

2.2.1. Pictogram



2.2.2.

Labelling according Regulation (EC) No 1272/2008
Pictogram Signal word Danger
Hazard statement(s)
H302 Harmful if swallowed.
H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
Precautionary statement(s)
P273 Avoid release to the environment.
P281 Use personal protective equipment as required.
P314 Get medical advice/ attention if you feel unwell.
Supplemental Hazard
Statements
none
2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Formula : C₂HCl₅
Molecular Weight : 202,29 g/mol
CAS-No. : 76-01-7
EC-No. : 200-925-1
Index-No. : 602-017-00-4
Hazardous ingredients according to Regulation (EC) No 1272/2008
Component Classification Concentration
Pentachloroethane
CAS-No.
EC-No.
Index-No.
76-01-7
200-925-1
602-017-00-4
Acute Tox. 4; Carc. 2; STOT
RE 1; Aquatic Chronic 2;
H302, H351, H372, H411
<= 100 %
Hazardous ingredients according to Directive 1999/45/EC
Component Classification Concentration
Pentachloroethane
CAS-No.
EC-No.
Index-No.
76-01-7
200-925-1
602-017-00-4
T, N, Carc.Cat.3, R40 -
R48/23 - R51/53
<= 100 %

3.1.1. Formula

C₂HCl₅

3.1.2. Molecular Weight (g/mol)

202.29

3.1.3. CAS-No.

76-01-7

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this 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

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, 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
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities
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.
Hydrolyses readily.
7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters
8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday
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 glove's 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.
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 full-face 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).
Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance Form: liquid
 - Colour: colourless
 - b) Odour no data available
 - c) Odour Threshold no data available
 - d) pH no data available
 - e) Melting point/freezing point
 - Melting point/range: -29 °C at 0,1 hPa
 - f) Initial boiling point and boiling range
 - 161 - 162 °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) Vapour pressure 4,7 hPa at 25 °C
 - l) Vapour density no data available
 - m) Relative density 1,68 g/cm³ at 25 °C
 - n) Water solubility no data available
 - o) Partition coefficient: noctanol/water
 - log Pow: 3,22 at 20 °C
 - p) Auto-ignition temperature
 - no data available
 - q) Decomposition temperature
 - no data available
 - r) Viscosity 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 Strong oxidizing agents, Water, Reacts violently with:, Alkali metals, Lithium, Potassium, Sodium/sodium oxides
- 10.6 Hazardous decomposition products
- Other decomposition products - no data available
- In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
- Acute toxicity
- LD50 Oral - rat - 920 mg/kg

Remarks: Behavioral: Altered sleep time (including change in righting reflex). Behavioral: Ataxia. Liver: Other changes.

LC50 Inhalation - rat - 2 h - 4238 ppm

Skin corrosion/irritation

no data available Serious eye damage/eye irritation

no data available

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

Limited evidence of carcinogenicity in animal studies

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Pentachloroethane)

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

no data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 7,34 mg/l - 96,0 h

Toxicity to daphnia and

other aquatic

invertebrates

EC50 - Daphnia magna (Water flea) - 4,7 mg/l - 48 h

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

Bioaccumulation Lepomis macrochirus - 7,5 d

- 7,93 μg/l

Bioconcentration factor (BCF): 67

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

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 Contaminated packaging

Dispose of as unused product

14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 1669 IMDG: 1669 IATA: 1669
14.2 UN proper shipping name
ADR/RID: PENTACHLOROETHANE
IMDG: PENTACHLOROETHANE
IATA: Pentachloroethane
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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available
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!