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**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:

cis-1,2-Dichloroethene

### 1.1. Catalog No.:

687748

### 1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

### 1.3. Uses advised against:

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### 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
GHS02 flame
Flam. Liq. 2 H225 Highly flammable liquid and vapour
GHS07
Acute Tox. 4 H332 Harmful if inhaled.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

### 2.2.1. Pictogram

### 2.2.2.

· 2.2 Label elements
· Labelling according to Regulation (EC) No 1272/2008

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The substance is classified and labelled according to the CLP regulation.
· Signal word Danger
· Hazard statements
H225 Highly flammable liquid and vapour.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.
· Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· 2.3 Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1.1. Formula

C2H2Cl2

### 3.1.2. Molecular Weight (g/mol)

96.94

### 3.1.3. CAS-No.

156-59-2

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## 4. FIRST AID MEASURES

· 4.1 Description of first aid measures
· General information:
Symptoms of poisoning may occur even after several hours; therefore medical observation for at least 48 hours after the accident is recommended.
· After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient in recovery position for transport.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water.
· After swallowing: Rinse mouth. Do not induce vomiting.
· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
· 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

## 5. FIRE-FIGHTING MEASURES

· 5.1 Extinguishing media
· Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· 5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
· 5.3 Advice for firefighters
· Protective equipment:
Mouth respiratory protective device.
Wear self-contained respiratory protective device.

## 6. ACCIDENTAL RELEASE MEASURES

· 6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
· 6.2 Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
· 6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.

## 7. HANDLING AND STORAGE

· 7.1 Precautions for safe handling
Ensure good ventilation/extraction at the workplace.
Store in cool, dry place in tightly closed receptacles.
· Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· 7.2 Conditions for safe storage, including any incompatibilities
· Storage:
· Requirements to be met by storerooms and receptacles:
Store in a cool location.
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
Store only in the original receptacle.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
· Information about storage in one common storage facility: Store away from foodstuffs.
· Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
· 7.3 Specific end use(s) No further relevant information available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

· Additional information about design of technical facilities: No further data; see item 7.
· 8.1 Control parameters
· Ingredients with limit values that require monitoring at the workplace: Not required.
· Additional information: Lists used were valid at the time of SDS preparation.
· 8.2 Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
· Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
· Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374
· Material of gloves Fluorocarbon rubber (Viton)
· Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· Eye protection:
Tightly sealed goggles

## 9. PHYSICAL AND CHEMICAL PROPERTIES

· 9.1 Information on basic physical and chemical properties
· General Information
· Appearance:
Form: Liquid
Colour: Colourless
· Odour: Ether-like
· Odour threshold: Not determined.
· pH-value: Not determined.
· Change in condition
Melting point/freezing point: -80.5 °C
Initial boiling point and boiling range: 60 °C
· Flash point: 6 °C
· Flammability (solid, gas): Not determined.
· Ignition temperature: 460 °C
· Decomposition temperature: Not determined.
· Auto-ignition temperature: Not determined.
· Explosive properties: Product is not explosive. However, formation of explosive air/ vapour mixtures is possible.

Explosion limits:
Lower: 6.2 Vol %
Upper: 16 Vol %
· Vapour pressure at 20 °C: 215 hPa
· Density at 20 °C: 1.28 g/cm³
· Relative density Not determined.
· Vapour density Not determined.
· Evaporation rate Not determined.
· Solubility in / Miscibility with
water at 25 °C: 3.5 g/l
· Partition coefficient: n-octanol/water: 1.86 logP
· Viscosity:
Dynamic: Not determined.
Kinematic: Not determined.
· 9.2 Other information No further relevant information available.

## 10. STABILITY AND REACTIVITY

· 10.1 Reactivity Stable under normal conditions.
· 10.2 Chemical stability Stable under normal conditions.
· Thermal decomposition / conditions to be avoided:
Formation of toxic gases is possible during heating or in case of fire.
· 10.3 Possibility of hazardous reactions No dangerous reactions known.
· 10.4 Conditions to avoid
Heat.
Sources of ignition
· 10.5 Incompatible materials: Strong oxidizing agents.
· 10.6 Hazardous decomposition products:
Formation of toxic gases is possible during heating or in case of fire.

## 11. TOXICOLOGICAL INFORMATION

· 11.1 Information on toxicological effects
· Acute toxicity
Harmful if inhaled.
· Primary irritant effect:
· Skin corrosion/irritation Based on available data, the classification criteria are not met.
· Serious eye damage/irritation Based on available data, the classification criteria are not met.
· Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
· Germ cell mutagenicity Based on available data, the classification criteria are not met.
· Carcinogenicity Based on available data, the classification criteria are not met.
· Reproductive toxicity Based on available data, the classification criteria are not met.
· STOT-single exposure Based on available data, the classification criteria are not met.
· STOT-repeated exposure Based on available data, the classification criteria are not met.
· Aspiration hazard Based on available data, the classification criteria are not met.

## 12. ECOLOGICAL INFORMATION

· 12.1 Toxicity

· Aquatic toxicity: No further relevant information available.
· 12.2 Persistence and degradability No further relevant information available.
· 12.3 Bioaccumulative potential No further relevant information available.
· 12.4 Mobility in soil No further relevant information available.
· Ecotoxicological effects:
· Remark: Harmful to fish
· Additional ecological information:
· General notes:
Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
· 12.5 Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.
· 12.6 Other adverse effects No further relevant information available.

## 13. DISPOSAL CONSIDERATIONS

· 13.1 Waste treatment methods
· Recommendation
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· European waste catalogue
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
· Uncleaned packaging:
· Recommendation: Dispose of in accordance with national regulations.
· Recommended cleansing agents: Water, if necessary together with cleansing agents.

## 14. TRANSPORT INFORMATION

· 14.1 UN-Number
· ADR, IMDG, IATA UN1150
· ADR 1150 1,2-DICHLOROETHYLENE
· IMDG 1,2-DICHLOROETHYLENE
· IATA 1,2-Dichloroethylene
· 14.3 Transport hazard class(es)
· ADR, IMDG, IATA
· Class 3 Flammable liquids.
· Label 3
· 14.4 Packing group
· ADR, IMDG, IATA II
· 14.5 Environmental hazards: Not applicable.
· 14.6 Special precautions for user Warning: Flammable liquids.
· Danger code (Kemler): 33
· EMS Number: F-E,S-D
· Segregation groups Liquid halogenated hydrocarbons
· Stowage Category B
· 14.7 Transport in bulk according to Annex II of
Marpol and the IBC Code Not applicable.
· Transport/Additional information:
· ADR
· Limited quantities (LQ) 1L
· Transport category 2
· Tunnel restriction code D/E
· UN "Model Regulation": UN 1150 ,2-DICHLOROETHYLENE, 3, II

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## 15. REGULATORY INFORMATION

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
· Philippines Inventory of Chemicals and Chemical Substances Substance is not listed.
· Australian Inventory of Chemical Substances Substance is listed.
· Standard for the Uniform Scheduling of Medicines and Poisons Substance is not listed.
· Directive 2012/18/EU
· Named dangerous substances - ANNEX I Substance is not listed.
· Seveso category P5c FLAMMABLE LIQUIDS
· Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 40
· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been 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!