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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:

D3-Chloroacetic Acid

1.1. Catalog No.:

684589

1.2. Relevant identified uses of the substance or mixture

Identified uses: Laboratory chemical
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

Physical state: Solid
Warning: Toxic if swallowed or in contact with skin. Fatal if inhaled. Causes severe skin burns and eye damage.
Routes of entry: Inhalation, ingestion, skin and eyes
GHS (Globally Harmonized System of Classification and Labelling of Chemicals):
GHS Classification: - Acute toxicity, Oral (Category 3)
- Acute toxicity, Dermal (Category 3)
- Acute toxicity, Inhalation (Category 2)
- Skin corrosion (Category 1B)
- Serious eye damage (Category 1)
- Specific target organ toxicity - single exposure (Category 3), Respiratory system

2.2. Label elements

2.2.1. Pictogram

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2.2.2.

- Signal word: Danger
Hazards statement: - H301 + H311 Toxic if swallowed or in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H330 Fatal if inhaled.
- H335 May cause respiratory irritation.
Precautionary statement: - P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P302 + P350 IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340 IF INHALED: Remove person to fresh air and keep 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.
- P316 Get emergency medical help immediately.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chloroacetic Acid-d3, CAS 1796-85-6, >98%

3.1.1. Formula

C2ClD3O2

3.1.2. Molecular Weight (g/mol)

97.52

3.1.3. CAS-No.

1796-85-6

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact: Wash off with soap and plenty of water. Consult a physician.
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

5. FIRE-FIGHTING MEASURES

Flammability of the product: Flammable in the presence of a source of ignition when the temperature is above the flash point.
Lower explosion limit: 8 Vol%
Upper explosion limit: No data available.
Auto-ignition temperature: 470 °C (878 °F)
Flash point: 126 °C (259 °F)
Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, hydrogen chloride gas.
Firefighting media and instructions: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation. Avoid breathing dust.
Environmental precautions: Do not let product enter drains. Discharge into the environment must be avoided.
Methods for cleaning up: Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation.
Storage: : Store at room temperature. Adequate ventilation. Protect from moisture.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.
Eyes: Safety glasses with side-shields conforming to NIOSH (US) or EN 166 (EU).
Respiratory: 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).
Hands: Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Skin/body: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Molecular weight: 94.50 g/mol
Physical status: Solid
Color: White to off-white
Odour: No data available
Density: No data available
Melting point: 60 - 63 °C (140 - 145 °F)
Boiling point: 189 °C (372 °F)
Vapour pressure: 1 hPa (0.75 mmHg) at 20 °C (68 °F)
Vapour density: 3.26 (Air = 1) Partition coefficient (octanol/water): log Pow: 0.22
Water solubility: 858 g/L

10. STABILITY AND REACTIVITY

Stability and reactivity: Stable under recommended storage conditions.
Incompatibility: Strong oxidizing agents, strong bases.
Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, hydrogen chloride gas.
Reactivity conditions: No data available.

11. TOXICOLOGICAL INFORMATION

Toxicological data: Chloroacetic Acid
Information on ingredients:
Name CAS
Name Chloroacetic Acid CAS 79-11-8
LD50 Oral - Rat - 55 mg/kg, LC50 Inhalation - Rat - 180 mg/m3
Potential acute effects
- Eyes: Causes severe eye damage.
- Skin: Toxic if absorbed through skin. Causes severe skin burns.
- Inhalation: Fatal if inhaled. May cause respiratory tract irritation.
- Ingestion: Toxic if swallowed.
Potential chronic effects
- Carcinogenic effects: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- Mutagenic effects: Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation - negative. Genotoxicity in vivo - Drosophila melanogaster - male - negative.
- Teratogenic effects: No data available.
- Medical conditions aggravated by overexposure: No data available.

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12. ECOLOGICAL INFORMATION

Ecological data:
Name Chloroacetic Acid
Results Species Period
370 mg/l LC50 Danio rerio 96 h
77 mg/l EC50 Daphnia magna 48 h
0.033 mg/l EC50 Desmodesmus subspicatus 72 h
Effects on environment: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Mobility: No data available.
Environmental precautions: No data available.
Persistence and degradability: Aerobic. Result: 65 % - Readily biodegradable. Method: OECD Test guideline 301C.
Bioaccumulative potential: No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal: Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

Classification DOT/IMDG/IATA label:
Shipping name: Chloroacetic Acid, solid
UN number: UN1751
Class: 6.1 (8)
Packaging group: II
Additional information: None

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.
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
15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

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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!