

Chemical Safety Technical Data Sheet

Product Name:Ethylenediaminetetraacetic Acid

Developed in accordance with GB/T 16483 and GB/T 17519

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Edition : A

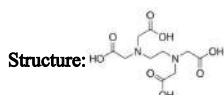
Part 1: Identification of Chemicals and Enterprises

Chinese name of the chemical:Ethylenediaminetetraacetic acid;

Chemical name in English:ethylenediamine tetraacetic acid

Molecular formula:C₁₀H₁₆N₂O₈

Molecular weight:292.24



Recommended and restricted uses of the chemical:As a staining aid, fiber treatment agent, blood anticoagulant, complexing agent, etc. It can also be used to eliminate the inhibitory effects of heavy metal ions on enzymes.

Part II Overview of Hazards

Emergency overview:Ingestion may be harmful. Causes severe eye irritation. May impair fertility or harm the fetus if suspected. Causes organ damage. Harmful to aquatic organisms.

GHS Hazard Category:

Acute toxicity – Oral:Category 5

Severe ocular injury/irritation:

Category 2A **Reproductive toxicity:**Category 2

Specific target organ toxicity – single exposure:Category 1

Hazard to aquatic environment – Acute hazard:Category 3

Tag Elements:

figurative graph :



Warning phrase:Hazard

Hazard Description:May be harmful if swallowed. Causes severe eye irritation. May impair fertility or harm the fetus if suspected. Causes organ damage. Harmful to aquatic organisms.

Prevention Measures:

【 preventive measure 】

- Avoid contact with eyes and skin; thoroughly rinse after use.
- No eating, drinking, or smoking is permitted in the workplace.
- Avoid inhalation of dust or mist. Operate only outdoors or in well-ventilated areas.
- Wear protective gloves, protective clothing, protective goggles, and a face shield.
- Do not discharge into the environment.
- Before use, obtain, read, and follow all safety instructions.

[Accident Response]

- For inhalation: Transfer the patient to an area with fresh air, have them rest, and maintain a position that facilitates breathing.
- Skin contact: Clean the affected area thoroughly with plenty of soap and water; contaminated clothing must be washed before reuse.
- Eye contact: Rinse carefully with water for several minutes. If contact lenses are worn and can be easily removed, remove them and continue rinsing.

·Administration: Rinse mouth. Seek medical attention.

·Collect the spill.

【 safe storage 】

·Lock and store securely.

[Disposal of Waste]

·This product, its contents, and the container shall be disposed of in accordance with national and local regulations.

Physical and chemical hazards:No data available.

Health hazards:May be harmful when swallowed. Causes severe eye irritation. May potentially harm fertility or the fetus. Can cause organ damage.

Environmental hazards:Harmful to aquatic organisms.

Part III: Composition/Composition Information

√matter		Mixture
Component	Concentration	CAS No.
Ethylenediaminetetraacetic acid	≥98.5%	60-00-4

Part IV: Emergency Management Measures

Inhalation:Immediately remove the individual from the area to fresh air. Keep the airway clear. If breathing is difficult, administer oxygen. In case of respiratory or cardiac arrest, perform cardiopulmonary resuscitation (CPR) immediately. Seek medical attention.

Skin contact:Immediately remove contaminated clothing and thoroughly rinse the skin with plenty of running water. Seek medical attention.

Eye contact:Immediately open the eyelids and rinse thoroughly with running water or saline solution. Seek medical attention.

Ingestion:Rinse the mouth with water. Seek medical attention.

Advice for rescuers:Use personal protective equipment as needed.

Special note for physicians:Provide symptomatic treatment.

Part V: Fire Safety Measures

Fire extinguishing agents:Use water mist, alcohol-resistant foam, sand, dry powder, or carbon dioxide to extinguish the fire.

Special risk:No data available.

Fire suppression precautions and protective measures:Firefighters must wear respirators and full-body fire-resistant clothing, and approach the fire from upwind. Spray water to cool the container and move it to an open area whenever possible. Evacuate immediately if the container suddenly emits abnormal sounds or exhibits unusual behavior.

Part VI: Emergency Response to Leaks

Protective measures, protective equipment, and emergency response procedures for personnel:Isolate the contaminated leakage area and restrict access. Emergency responders are advised to wear dust masks, chemical-resistant workwear, and rubber gloves. Do not handle ruptured containers or leaked substances before wearing appropriate protective clothing. Efforts should be made to cut off the source of the leak whenever possible.

Environmental protection measures:Prevent leaks from entering sewers, surface water, and groundwater.

Methods for containing and removing leaked chemicals, as well as the disposal materials used:Collect the spill using a clean shovel and place it in a clean, dry container with a loose lid; then move the container away from the spill area.

Part VII: Handling, Storage and Disposal

Operating Precautions:Operators must undergo specialized training and strictly adhere to operating procedures. It is recommended that operators wear self-suction filtering dust masks, safety goggles, chemical-resistant workwear, and rubber gloves. Handle materials gently during transportation to prevent damage to packaging and containers. Ensure adequate availability of fire extinguishers and leak response equipment. Food consumption is prohibited in the workplace; hands should be washed after use. Remove contaminated clothing and protective equipment before entering food service areas.

Storage Precautions:Store in a well-ventilated warehouse. Keep sealed. Provide appropriate types and quantities of fire-fighting equipment. The storage area should be equipped with suitable materials to contain spills.

Part VIII: Contact Control/Personal Protection

Occupational exposure limit:No data available.

Biological contact limit:No data available.

Monitoring method:No data available.

Engineering controls:Provide safe shower and eye-wash facilities.

Personal Protective Equipment:

Respiratory protection:When airborne dust concentrations exceed permissible limits, a self-suction filtering respirator must be worn. During emergency rescue or evacuation operations, an air respirator should be used.

Eye protection:Wear chemical safety goggles.

Skin and body protection:Wear chemical protective clothing.

Hand protection:Wear rubber gloves.

Part Nine Physical and Chemical Properties

Appearance and characteristics:White crystals or powder.

pH value:No data **Boiling point (°C):**

No data **Relative vapor density (air =**

1):No data **Heat of combustion (kJ/**

mol):No data

Critical pressure (MPa):No

data **Flash point (°C):**No data

Lower explosive limit (%):No

data **Decomposition temper-**

ature (°C):No data

Solubility:Slightly soluble in cold water; soluble in sodium hydroxide, sodium carbonate, and ammonia solutions; insoluble in ethanol and organic solvents.

Melting point (°C):220–250

Relative density (water = 1):No

data **Saturated vapor pressure**

(kPa):No data **Critical temper-**

ature (°C):No data **Octanol/**

water partition coefficient:No

data **Self-ignition temperature**

(°C):No data **Upper explosive**

limit (%):No data **Viscosity**

(mPa·s):No data

Part 10 Stability and Reactiv-

ity Stability:Stable.

Adverse reactions:No data available.

Conditions for avoiding contact:No information available.

Contraindications:No information available.

Hazardous decomposition products:No data available.

Part XI Toxicological Inf-

ormation Acute Toxicity:No Data Available.

Skin irritation or corrosion: non-avaible 。

Eye irritation or corrosion: non-avaible 。

Respiratory or skin allergy: non-avaible 。

Mutability of germ cells: non-avaible 。

Carcinogenicity:No data available.

Reproductive toxicity:No data available.

Specific target organ system toxicity – single exposure:No data available.

Specific target organ system toxicity – repeated exposure:No data available.

Inhalation hazards:No data available.

Part XII Ecological Info-

rmation Ecotoxicity:No Data Available.

Durability and Degradability:

Biodegradability: No data available.

Non-biodegradability: No data available.

Potential bioaccumulation:No data available.

Mobility in soil:No data available.

Part XIII Disposal of

waste chemicals:Remaining and non-recyclable products shall be disposed of by licensed companies.

Contaminated packaging:Disposal shall comply with national and local regulations.

Disposal precautions:Refer to relevant national and local regulations before disposal.

Part 14: Transportation Information

United Nations dangerous goods number (UN number):No information available

Name of Transport by the United Nations:Non-hazardous goods

UN hazard class:No information

Packaging Category:No information

Packaging Logo:No information

Marine pollutants:No

Transportation Precautions:Before transportation, verify that the packaging container is intact and sealed. During transit, ensure the container remains leak-proof, stable, protected from collapse or damage. Strictly prohibit mixing with food or food additives. Transport vehicles must be equipped with appropriate types and quantities of firefighting equipment and leakage emergency response devices. Protect the containers from direct sunlight, rain, and high temperatures during transport. For road transport, follow designated routes as required.

Part 15: Regulatory Information

The following laws, regulations, rules, and standards contain corresponding provisions for the management of this chemical substance.

Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases:Classification and catalog of occupational diseases: Not listed.

Regulations on the Safety Management of Hazardous Chemicals:List of hazardous chemicals: Not included. List of explosive-prone hazardous chemicals: Not included. List of key hazardous chemicals under supervision: Not included. GB18218-2018 "Identification of Major Hazard Sources for Hazardous Chemicals" (Table 1): Not included.

Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used:List of highly toxic substances: Not included.

Regulations on the Management of Chemicals Susceptible to Drug Manufacturing:Classification and list of types of chemicals susceptible to drug manufacturing: Not included.

International Conventions:Stockholm Convention: Not included; Rotterdam Convention: Not included; Montreal Protocol: Not included.

Part 16: Other Information

Writing and revision information:This is the first version.

References:Safety Culture Network

Disclaimer:The information in this SDS applies solely to the specified product. Unless otherwise stated, it does not apply to mixtures of this product with other substances. This SDS provides safety information only for properly trained users of the product. Users must independently assess the suitability of this SDS under specific usage conditions. The authors of this SDS shall not be liable for any injuries resulting from its use in exceptional circumstances.