



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name ETHYLENEDIAMINETETRAACETIC ACID, REAGENT (ACS)
Catalog # 689
Version # 02
Revision date 22-Jun-2010
CAS # 60-00-4
Synonym(s) EDTA * ETHYLENEDINITRILOTETRAACETIC ACID
Manufacturer information GFS Chemicals, Inc.
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2. Hazards Identification

Emergency overview Irritating to eyes. Exposure to powder or dusts may be irritating to eyes, nose and throat.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Eye contact. Inhalation. Skin contact.
Eyes Causes eye irritation.
Inhalation Inhalation of dusts may cause respiratory irritation.
Ingestion Expected to be a low ingestion hazard.
Potential environmental effects Components of this product are hazardous to aquatic life. May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
ETHYLENEDIAMINETETRAACETIC ACID	60-00-4	90 - 100

4. First Aid Measures

First aid procedures
Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.
Skin contact Get medical attention if irritation develops and persists. Rinse skin with water/shower.
Inhalation If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.
Ingestion Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
General advice Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties The product is not flammable. Will burn if involved in a fire. Dust may form explosive mixture with air.
Extinguishing media
Suitable extinguishing media Foam. Dry chemical powder. Carbon dioxide (CO2). Do not use water as an extinguisher.

Unsuitable extinguishing media Water.

6. Accidental Release Measures

Personal precautions	Keep upwind. Keep out of low areas. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Should not be released into the environment. Collect dust using a vacuum cleaner equipped with HEPA filter. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. Handling and Storage

Handling	Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Avoid contact with eyes. Wear personal protective equipment. In case of insufficient ventilation, wear suitable respiratory equipment. Wash thoroughly after handling. Avoid release to the environment.
Storage	Store in a well-ventilated place. Keep container tightly closed. Guard against dust accumulation of this material. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Engineering controls	Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Respiratory protection	Wear respirator with dust filter.
Eye / face protection	Wear safety glasses with side shields (or goggles). Avoid contact with eyes. Use tight fitting goggles if dust is generated.
General hygiene considerations	Do not breathe dust. Avoid contact with eyes. Avoid contact with skin.
General	Ensure that eyewash stations and safety showers are close to the workstation location.

9. Physical & Chemical Properties

Appearance	Powder.
Color	White.
Odor	Odorless.
Odor threshold	Not available.
Physical state	Solid.
Form	Powder.
pH	2.5 approximate for saturated solution
Melting point	428 °F (220 °C) (decomposes without melting)
Freezing point	Not available.
Boiling point	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.

Vapor density	Not available.
Specific gravity	Not available.
Relative density	Not available.
Solubility (water)	0.2 g/l approximately
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	220
Percent volatile	0 % estimated
Molecular weight	292.2800 g/mol
Molecular formula	C10-H16-N2-O8

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Incompatible materials	Strong oxidizing agents. Contact with metals may evolve flammable hydrogen gas.
Hazardous decomposition products	May include oxides of carbon. May include oxides of nitrogen.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Acute effects

Acute Toxicity other routes: LD 50

ETHYLENEDIAMINETETRAACETIC ACID	60-00-4	Rat 397 mg/kg Intraperitoneal
ETHYLENEDIAMINETETRAACETIC ACID	60-00-4	Mouse 250 mg/kg Intraperitoneal

Toxicology data for the preparation

Local effects	Irritating to eyes. Inhalation of dusts may cause respiratory irritation.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

12. Ecological Information

Ecotoxicity	Components of this product are hazardous to aquatic life.
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Invertebrate Toxicity: EC 50

ETHYLENEDIAMINETETRAACETIC ACID	60-00-4	Water flea (Daphnia magna) 122 mg/l 24 h Static Intoxication
ETHYLENEDIAMINETETRAACETIC ACID	60-00-4	Water flea (Daphnia magna) 113 mg/l 48 h Static Intoxication

Environmental effects	Harmful to aquatic organisms.
Persistence and degradability	Not available.

13. Disposal Considerations

Disposal instructions	Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
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14. Transport Information

DOT

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

CERCLA (Superfund) reportable quantity

ETHYLENEDIAMINETETRAACETIC ACID, REAGENT (ACS): 5000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

ETHYLENEDIAMINETETRAACETIC ACID 60-00-4 Listed.

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 2
Flammability: 0
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 0
Instability: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Issue date

22-Jun-2010

This data sheet contains changes from the previous version in section(s):

This document has undergone significant changes and should be reviewed in its entirety.