

MSDS# 09570

## Section 1 - Chemical Product and Company Identification

MSDS Name: Ethylenediamine Tetraacetic Acid

Catalog Numbers: BP118-500, E478-1, E478-10, E478-500, NC9767624

Synonyms: Acetic acid, (ethylenedinitrilo)tetra-; 3,6-Diazaoctanedioic acid, 3,6-bis(carboxymethyl)-; Edetic acid; EDTA; EDTA (chelating agent); EDTA acid; Endrate; N,N'-1,2-Ethanediybis(N-(carboxymethyl)glycine); Ethylenediaminetetraacetic acid; Ethylenediamine

Company Identification: Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

## Section 2 - Composition, Information on Ingredients

CAS#: 60-00-4

Chemical Name: Ethylenediamine tetraacetic acid

%: >99

EINECS#: 200-449-4

Hazard Symbols: XI



Risk Phrases: 36/37/38

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Warning! Causes respiratory tract irritation. May cause kidney damage. Causes eye and skin irritation. May cause reproductive and fetal effects. Target Organs: Kidneys, eyes, skin.

## Potential Health Effects

Eye: Causes eye irritation. Causes redness and pain.

Skin: Causes skin irritation. Causes redness and pain.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Ingestion of large amounts can cause hypocalcemic tetany due to formation of calcium complexes. Exposure may cause kidney injury, muscle cramps, bone-marrow depression, and a generalized allergic reaction.

Inhalation: Causes irritation of the mucous membrane and upper respiratory tract.

Chronic: May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects. Chronic exposure may cause kidney damage.

## Section 4 - First Aid Measures

First Aid: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

### Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; flammability: 1; instability: 0;

### Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

### Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Keep container tightly closed. Avoid breathing dust.

Storage: Do not store in direct sunlight. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ethylenediamine tetraacetic acid	none listed	none listed	none listed

OSHA Vacated PELs: Ethylenediamine tetraacetic acid: None listed

#### Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

#### Exposure Limits

#### Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Physical State: Crystals

Color: colorless to white

Odor: odorless

pH: Not available

Vapor Pressure: Negligible.

Vapor Density: Not available

Evaporation Rate: Negligible.

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 220 deg C ( 428.00°F)

Decomposition Temperature:

Solubility in water: Slightly soluble

Specific Gravity/Density: 0.86 @ 20C

Molecular Formula: C10H16N2O8

Molecular Weight: 292.25

#### Section 10 - Stability and Reactivity

Chemical Stability:	Stable at room temperature in closed containers under normal storage and handling conditions. Decarboxylates above 150C.
Conditions to Avoid:	Dust generation, excess heat.
Incompatibilities with Other Materials	Strong oxidizing agents, strong bases, aluminum, copper, copper alloys, nickel.
Hazardous Decomposition Products	Nitrogen oxides, carbon monoxide, carbon monoxide, carbon dioxide.
Hazardous Polymerization	Will not occur.

#### Section 11 - Toxicological Information

RTECS#: CAS# 60-00-4: AH4025000

RTECS:

LD50/LC50: **CAS# 60 00 4:** Oral, mouse: LD50 = 30 mg/kg;

Carcinogenicity: Ethylenediamine tetraacetic acid - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

#### Section 12 - Ecological Information

Ecotoxicity:	Fish: Channel catfish: LC50 = 129-159 mg/L; 96Hr; Unspecified
	Fish: Rainbow trout: LC50 = 340 mg/L; 24Hr; Unspecified
	Fish: Bluegill/Sunfish: LC50 = 129-159 mg/L; 96Hr; Unspecified
	Fish: Fathead Minnow: 100% Lethal = 750 ppm; 96 Hr; Static bioassay
	Water flea Daphnia: LC50 > 100 ppm; 96 Hr; Static bioassay

#### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

#### Section 14 - Transport Information

US DOT

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

## Section 15 - Regulatory Information

### European/International Regulations

#### European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

#### WGK (Water Danger/Protection)

CAS# 60-00-4: 2

#### Canada

CAS# 60-00-4 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 60-00-4 is not listed on Canada's Ingredient Disclosure List.

#### US Federal

##### TSCA

CAS# 60-00-4 is listed on the TSCA Inventory.

## Section 16 - Other Information

MSDS Creation Date: 6/01/1999

Revision #6 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the

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