

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Ethylenediaminetetraacetic acid

Product Number : EDS

Brand : Sigma-Aldrich

Company : Sigma-Aldrich  
3050 Spruce Street  
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USA

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### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

#### OSHA Hazards

Irritant

#### GHS Label elements, including precautionary statements

Pictogram



Signal word : Warning

Hazard statement(s)

H303 : May be harmful if swallowed.  
H319 : Causes serious eye irritation.  
H402 : Harmful to aquatic life.

Precautionary statement(s)

P264 : Wash skin thoroughly after handling.  
P273 : Avoid release to the environment.  
P280 : Wear protective gloves/eye protection/face protection.  
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 : Call a POISON CENTER or doctor/physician if you feel unwell.  
P337 + P313 : If eye irritation persists: Get medical advice/attention.  
P501 : Dispose of contents/container to an approved waste disposal plant.

#### HMIS Classification

Health hazard: 2  
Flammability: 0  
Physical hazards: 0

#### NFPA Rating

Health hazard: 2  
Fire: 0  
Reactivity Hazard: 0

#### Potential Health Effects

**Inhalation** : May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** : May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes** : Causes eye irritation.

**Ingestion**

May be harmful if swallowed.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Edathamil  
(Ethylenedinitrilo)tetraacetic acid  
Ethylenedinitrilotetraacetic acid  
EDTA

Formula :  $C_{10}H_{16}N_2O_8$

Molecular Weight : 292.24 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
<b>Edetic acid</b>			
60-00-4	200-449-4	-	-

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### 4. FIRST AID MEASURES

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

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### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

**Environmental precautions**

Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

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### 7. HANDLING AND STORAGE

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves.

#### Eye protection

Safety glasses with side-shields conforming to EN166

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	powder
Colour	white

### Safety data

pH	2.5 at 10 g/l at 23 °C (73 °F)
Melting point	250 °C (482 °F) - dec.
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Density	0.860 g/cm <sup>3</sup> at 20 °C (68 °F)
Water solubility	no data available
Partition coefficient: n-octanol/water	log Pow: -3.34

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## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Conditions to avoid

no data available

### Materials to avoid

Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO<sub>x</sub>)

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## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

LD50 Oral - rat - 2,580 mg/kg

**Skin corrosion/irritation****Serious eye damage/eye irritation**

Eyes - rabbit - Eye irritation

**Respiratory or skin sensitization**

Will not occur

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

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.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure (GHS)**

no data available

**Specific target organ toxicity - repeated exposure (GHS)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Eyes</b>	Causes eye irritation.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional Information**

RTECS: AH4025000

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**12. ECOLOGICAL INFORMATION****Toxicity**

Toxicity to fish	mortality NOEC - Lepomis macrochirus - 24 mg/l - 96.0 h
	LC50 - Lepomis macrochirus (Bluegill) - 34 - 62 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates.	EC50 - Daphnia magna (Water flea) - 113 mg/l - 48 h

**Persistence and degradability****Bioaccumulative potential**

Bioaccumulation	Lepomis macrochirus - 28 d
	Bioconcentration factor (BCF): 1.8

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

May be harmful to aquatic organisms due to the shift of the pH. Avoid release to the environment.

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**13. DISPOSAL CONSIDERATIONS**

**Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION**

**DOT (US)**

UN-Number: 3077 Class: 9 Packing group: III  
Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Edetic acid)  
Reportable Quantity (RQ): 5000 lbs  
Marine pollutant: No  
Poison Inhalation Hazard: No

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

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**15. REGULATORY INFORMATION**

**OSHA Hazards**

Irritant

**DSL Status**

All components of this product are on the Canadian DSL list.

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Acute Health Hazard

**Massachusetts Right To Know Components**

	CAS-No.	Revision Date
Edetic acid	60-00-4	2007-03-01

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
Edetic acid	60-00-4	2007-03-01

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
Edetic acid	60-00-4	2007-03-01

**California Prop. 65 Components**

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

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**16. OTHER INFORMATION****Further information**

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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. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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