

## 1: Identification of substance / mixture

### 1. Product Identifier

Substance

Product Name **Ethylenediaminetetraacetic acid**  
Product Code E58100  
CAS Number 60-00-4  
Other Names EDTA  
IUPAC  
MFCN Number  
EC/EINECS 200-449-4  
REACH Number Index-No

### 2. Relevant identified uses of the substance or mixture and uses advised against

Research and Development

### 3. Details of the supplier of the safety data sheet

Melford Laboratories Ltd  
Bildeston Road, Chelsworth  
Ipswich  
Suffolk  
IP77LE  
UK



Telephone: 01449 741178  
Fax: 01449 741217  
Email: support@melford.co.uk

### 4. Emergency telephone number

+44(0)1449 741178 -

## 2. Hazards Identification

### 1. Classification of the substance or mixture

H319 Eye Irrit. 2

### 2. Label elements

Signal Word **Warning**



### Hazard Statements

H319 Causes serious eye irritation.

### Precautionary Phrases

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

## 3. Composition / Information on Ingredients

### 1. Substances

Product Name	Hazards	Concentration
Ethylenediaminetetraacetic acid		
CAS Number: 60-00-4 EC/EINECS: 200-449-4	H319 Eye Irrit. 2	<=100%

## 4. First Aid Measures

### 1. Description of first aid measures

**Skin Contact** Wash immediately with plenty of soap and water.  
Consult a doctor.

**Eye Contact**

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Bathe the eye with running water for 15 minutes.  
Consult a doctor.

*Ingestion* Wash out mouth with water.  
Consult a doctor.

*Inhalation* Supply fresh air; consult a doctor in case of complaints.  
If breathing becomes bubbly, have the casualty sit and provide oxygen if available.  
Treat symptomatically.

## 2. Most important symptoms and effects

No data available

## 3. Indication of any immediate medical attention

No data available

## 5. Firefighting measures

### 1. Extinguishing Media

*Suitable* Water spray.  
Carbon dioxide.  
Alcohol or polymer foam.  
Dry chemical powder.

*Unsuitable* n/a

### 2. Special Hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx)

### 3. Advice for Fire Fighters

Wear self-contained breathing apparatus.  
Wear protective clothing to prevent contact with skin and eyes.

## 6. Accidental Release Measures

### 1. Personal Precautions

Refer to section 8 of SDS for personal protection details.  
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

### 2. Environmental Precautions

Do not discharge into drains or rivers.

### 3. Methods & Materials

Pick up and arrange disposal without creating dust. Sweep up and shovel.  
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 4. Preventing the occurrence of secondary hazards.

Clean up all spills immediately. Wear suitable PPE.

## 7. Handling and Storage

### 1. Personal Precautions

*Safe Handling* Provide appropriate exhaust ventilation at places where dust is formed.  
Avoid direct contact with the substance.

*Protection against explosions and fires* No special requirements  
Normal measures for preventive fire protection.

## 2. Conditions for safe storage, including any incompatibilities

<i>Managing Storage Risks</i>	Keep container tightly closed. Store in cool, well ventilated area.
<i>Storage Controls</i>	No special requirements
<i>Maintaining Integrity</i>	No special requirements
<i>Other advice</i>	no further information available

## 3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

## 8. Exposure Controls/Personal Protection

### 1. Control Parameters

No Data Available

### 2. Exposure Controls

<i>General protective and hygiene measures</i>	The standard precautionary measures should be adhered to when handling Wash hands during breaks and at the end of handling the material
<i>Engineering measures</i>	Provide appropriate exhaust ventilation at places where dust is formed.
<i>Eye / Face Protection</i>	Safety Glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)
<i>Hand protection</i>	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it
<i>Respiratory protection</i>	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
<i>Skin protection</i>	Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace
<i>Other personal protection advice</i>	no data available

## 9. Physical and Chemical Properties

### 1. Physical and Chemical Properties

Appearance	Solid
Odour	odourless
Odour threshold	No Data Available
PH	2.5 at 10 g/l at 23 °C
Melting point / Freezing point	250 °C - dec.
Initial boiling point and boiling range	No Data Available
Flash point	No Data Available
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	No Data Available

Vapour density	No Data Available
Relative density	1.46 g/cm <sup>3</sup> at 20 °C
Solubility(ies):	0.4 g/l at 20 °C (water)
Partition coefficient: n-octanol/water	log Pow: 8.85 - 10.44 at 20 °C
Auto-ignition temperature	> 400 °C at 1,013 hPa
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

## 2. Other Information

Dissociation constant 8.85 - 10.44 at 20 °C

## 10. Stability and Reactivity

### 1. Reactivity

No data available

### 2. Stability

Stable under recommended storage conditions..

### 3. Possibility of Hazardous Reactions

No data available

### 4. Conditions to Avoid

No data available

### 5. Incompatible Materials

Strong oxidizing agents.

### 6. Hazardous Decomposition Products

In combustion emits toxic fumes:  
Carbon oxides, Nitrogen oxides (NOx)

## 11. Toxicology information

### 1. Information

<i>Acute Toxicity</i>	LD50 Oral - Rat - male and female - 4,500 mg/kg
<i>Skin corrosion/irritation</i>	Skin - Rabbit Result: No skin irritation
<i>Serious eye Damage/irritation</i>	Eyes - Rabbit Result: Eye irritation
<i>Respiratory or skin sensitisation</i>	Maximisation Test (GPMT) - Rabbit Result: Does not cause skin sensitisation.
<i>Germ Cell mutagenicity</i>	not known
<i>Carcinogenicity</i>	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.
<i>Reproductive toxicity</i>	not known
<i>STOT-single exposure</i>	not known
<i>STOT-repeated exposure</i>	not known
<i>Aspiration hazard</i>	not known

### 2. Additional

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

## 12. Ecological Information

### 1. Toxicity

Toxicity to fish:  
static test LC50 - *Lepomis macrochirus* (Bluegill sunfish) - 41 mg/l - 96 h  
Toxicity to daphnia and other aquatic invertebrates:  
static test EC50 - *Daphnia magna* (Water flea) - 625 mg/l - 48 h

## 2. Persistence and degradability

not known

## 3. Bio-Accumulative Potential

Bioaccumulation *Lepomis macrochirus* - 28 d - 80 µg/l  
Bioconcentration factor (BCF): 1.8

## 4. Mobility and Soil

not known

## 5. Results of PBT & vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## 6. Other adverse effects

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

## 13. Disposal Considerations

### 1. Waste Treatment Methods

*Disposal Operations* Consult state, local or national regulations for proper disposal.

*Disposal of Packaging* Disposal must be made according to official regulations.

## 14. Transport Information

### Air (ICAO)

Not classified as hazardous for transport

### Road (ADR)

Not classified as hazardous for transport

### Sea (IMDG)

Not classified as hazardous for transport

## 15. Safety, health, environmental and national regulations

### 1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

### 2. Safety Assessment

No Chemical Safety Assessment

## 16. Other Information

### 1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)  
RID:Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association  
ICAO:International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the ICAO  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
CAS:Chemical Abstracts Service

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### 3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.