

## SECTION 1 – IDENTIFICATION

**Product Name:** EDTA, Disodium Salt Dihydrate  
Ultra Pure Grade

**Catalogue Number:** 1050

**Other means of identification:** Disodium ethylenediaminetetraacetate dihydrate  
Disodium EDTA  
EDTA- $\text{Na}_2$

### Recommended use of the chemical and restrictions on use:

Chelator of divalent cations. Inhibits enzymes, such as metalloproteases, which require divalent cations for activity.

For R&D use only. Not for pharmaceutical, household or other uses.

### Supplier Information:

Axil Scientific Pte Ltd  
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#06-01, JTC MedTech Hub  
Singapore 618305  
Tel: +65 6775 7318  
Email: [custcare@axilscientific.com](mailto:custcare@axilscientific.com)

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43300 Seri Kembangan, Selangor, Malaysia  
Tel: +603 8943 3252  
Email: [custcare@apicalscientific.com](mailto:custcare@apicalscientific.com)

### Emergency phone number:

Monday – Friday, 8:00 a.m. to 6:00 p.m.

+65 6775 7318 (Singapore)

+603 8943 3252 (Malaysia)

## SECTION 2 – HAZARDS IDENTIFICATION

### GHS Classification:

Acute Toxicity:  
Inhalation: Category 4

Specific target organ toxicity (repeated exposure):  
Respiratory Tract: Category 2

### GHS Hazard Pictogram(s):



**Signal Word:** Warning

### Hazards statements:

H332: Harmful if inhaled

H373: Causes damage to organs through prolonged or repeated exposure

### Precautionary statements:

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P271: Use only outdoors or in a well-ventilated area.

**Response:**

P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

P314: Get medical advice/attention if you feel unwell.

**Disposal:**

P501: Dispose of contents/container in accordance with federal, state and local environmental regulations.

**SECTION 3 – COMPOSITION/ INFORMATION ON INGREDIENTS**

**Chemical Identity:** EDTA, Disodium Salt Dihydrate  
**Synonyms:** Ethylenediaminetetraacetic acid disodium salt dihydrate  
 Ethanediylbis(N-(carboxymethyl)glycine) disodium salt  
 Disodium dihydrogen ethylenediaminetetraacetate  
 Versene disodium salt  
**Molecular Formula:**  $C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$   
**Molecular Weight:** 372.24

Component	Classification	Concentration
<b>Edetate disodium dihydrate</b>		
CAS-No. 6381-92-6 EC-No. 205-358-3	Acute Tox 4; STOT RE 2; H332, H373.	≤ 100 %

**SECTION 4 – FIRST-AID MEASURES**

**Eye Contact**

Flush eyes with water as a precaution.

**Skin Contact**

Immediately wash skin thoroughly with soap and copious amounts of water.

**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration or if breathing is difficult, give oxygen.

**Ingestion**

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

**Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

**Indication of immediate medical attention and special treatment needed**

Data not available.

**SECTION 5 – FIRE-FIGHTING MEASURES**

**Extinguishing Media**

Use water spray, CO<sub>2</sub>, dry chemical powder or alcohol-resistant foam.

**Special hazards arising from the substance or mixture**

Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Sodium oxides

**Special Fire-fighting Procedures**

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

**SECTION 6 – ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Clean up spills immediately, observing precautions in the safety data sheet and label. Minimize dust generation. Dispose into a chemical waste container.

**SECTION 7 – HANDLING AND STORAGE****Precautions for safe handling**

Use with adequate ventilation as necessary or desired. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Follow all SDS/ label precautions. Avoid contact with skin and eyes. Avoid raising dust.

**Conditions for safe storage, including any incompatibilities**

Store in tightly closed container in a cool, dry and well-ventilated area.

**SECTION 8 – EXPOSURE CONTROLS/ PERSONAL PROTECTION****Occupational Exposure Limits**

We are not aware of any national exposure limit.

**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice.

Use process enclosures, local exhaust ventilation, or other engineering controls as needed.

**Eye/ Face Protection**

Safety glasses with side-shields tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Where contact with the eyes is likely, use chemical goggles.

**Skin/ Hand Protection**

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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact  
Material: Nitrile rubber  
Minimum layer thickness: 0.11 mm  
Break through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **Body protection**

Impervious clothing. Type of protective equipment must be selected based on the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory Protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### **Control of environmental exposure**

Do not let product enter drains.

### **SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

a)	<b>Appearance</b>	White powder
b)	<b>Odour</b>	Odourless
c)	<b>Odour Threshold</b>	Not available
d)	<b>pH</b>	4.0 – 6.0 at 5%; H <sub>2</sub> O (w/v) at 25 °C
e)	<b>Melting/freezing point</b>	244 – 246 °C
f)	<b>Initial boiling point and boiling range</b>	Not available
g)	<b>Flash point</b>	> 100 °C (closed-cup)
h)	<b>Evaporation rate</b>	Not available
i)	<b>Flammability (solid, gas)</b>	Not available
j)	<b>Upper/lower flammability or explosive limits</b>	Not available
k)	<b>Vapour pressure (mm Hg)</b>	Not available
l)	<b>Vapour density</b>	Not available
m)	<b>Relative density</b>	Not available

n)	<b>Solubility (ies)</b>	10 g/L at 20 °C (water)
o)	<b>Partition coefficient: n-octanol/water</b>	Not available
p)	<b>Autoignition temperature</b>	Not available
q)	<b>Decomposition temperature</b>	Not available
r)	<b>Viscosity</b>	Not available

## SECTION 10 – STABILITY AND REACTIVITY

### Reactivity

Data not available.

### Chemical stability:

Stable.

### Possibility of hazardous reactions

Data not available.

### Conditions to avoid

Exposure to moisture.

### Incompatible materials

Strong oxidizing agents.

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### Acute Toxicity

LD50 (Oral): > 2,000 mg/kg [Rat]

### Skin Corrosion/Irritation

No skin irritation [Rabbit]

### Serious Eye Damage/Eye Irritation

No eye irritation [Rabbit]

### Respiratory or skin sensitization

Data not available.

### Germ cell mutagenicity

Data not 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.

### Reproductive toxicity

Data not available.

**Specific target organ toxicity - single exposure**

Data not available.

**Specific target organ toxicity - repeated exposure**

Data not available.

**Aspiration hazard**

Data not available.

**Other information**

RTECS: AH4410000

**SECTION 12 – ECOLOGICAL INFORMATION****Toxicity**

LC50: > 500 mg/l; 96 hr [Leuciscus idus]

EC50: > 100mg/l; 24 hr [Daphnia]

EC50: 10 – 100mg/l; 72 hr [Algae]

**Persistence and degradability**

Chemical Oxygen Demand (COD): 590 mg/g

**Bioaccumulative potential**

Data not available.

**Mobility in soil**

Data not available.

**Other adverse effect**

Data not available.

**SECTION 13 – DISPOSAL CONSIDERATIONS****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose off as unused product.

**SECTION 14 – TRANSPORT INFORMATION****UN Number**

ADR/RID: -

IMDG: -

IATA-DGR: -

**UN Proper Shipping Name:**

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA-DGR: Not dangerous goods

**Transport Hazard Class(es)**

ADR/RID: -

IMDG: -

IATA-DGR: -

**Packing Group**

ADR/RID: -

IMDG: -

IATA-DGR: -

**Environmental Hazards**

ADR/RID: no

IMDG: marine pollutant: no

IATA-DGR: no

**Special Precaution for Users**

Data not available

**SECTION 15 – REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture**

Data not available

**SECTION 16 – OTHER INFORMATION****Date of Issue:** JULY 11, 2008**Date of Revision:** JANUARY 10, 2022

*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. Axil Scientific Pte Ltd shall not be held liable for any damage resulting from handling or from contact with the above product.*