

SECTION 1 – IDENTIFICATION

Product Name: EDTA, Disodium Salt Dihydrate
Ultra Pure Grade

Catalogue Number: 1050

Other means of identification: Disodium ethylenediaminetetraacetatedihydrate
Disodium EDTA
EDTA-Na₂

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:

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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 ₂ Na ₂ O ₈ · 2H ₂ O
Molecular Weight:	372.24

Component	Classification	Concentration
Edetate disodium dihydrate		
CAS-No. 6381-92-6 EC-No, 205-358-3		≤ 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, CO₂, dry chemical powder or alcohol-resistant foam.

Special hazards arising from the substance or mixture

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

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

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