

SAFETY DATA SHEET

Creation Date 01-Jun-2010

Revision Date 24-Dec-2021

Revision Number 4

1. Identification

Product Name Ethylenediaminetetraacetic acid, tetrasodium salt hydrate
Cat No. : AC118440000; AC118440025; AC118440250; AC118445000
CAS No 194491-31-1
Synonyms Sodium edetate; EDTA, tetrasodium salt
Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--|------------|
| Acute oral toxicity | Category 4 |
| Acute Inhalation Toxicity - Dusts and Mists | Category 4 |
| Serious Eye Damage/Eye Irritation | Category 1 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Respiratory system. | |

Label Elements

Signal Word

Danger

Hazard Statements

Causes serious eye damage

May cause respiratory irritation
Harmful if swallowed or if inhaled



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection

Response

Call a POISON CENTER or doctor/physician if you feel unwell

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

| Component | CAS No | Weight % |
|---|-------------|----------|
| Ethylenediaminetetraacetic acid, tetrasodium salt hydrate | 194491-31-1 | >95 |
| Tetrasodium EDTA | 64-02-8 | - |

4. First-aid measures

| | |
|--|---|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention. |
| Inhalation | Remove to fresh air. Get medical attention. If not breathing, give artificial respiration. |
| Ingestion | Do NOT induce vomiting. Get medical attention. |
| Most important symptoms and effects | Causes eye burns. Causes severe eye damage. |

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable Extinguishing Media No information available

Flash Point Method - No information available
No information available

Autoignition Temperature No information available

Explosion Limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Nitrogen oxides (NO_x). Carbon monoxide (CO). Carbon dioxide (CO₂). Sodium oxides.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

| | | | |
|--------------------|--------------------------|-------------------------|--------------------------------|
| Health 2 | Flammability 1 | Instability 0 | Physical hazards N/A |
|--------------------|--------------------------|-------------------------|--------------------------------|

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

Environmental Precautions Should not be released into the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal.

7. Handling and storage

Handling Avoid contact with skin and eyes. Do not breathe dust. Do not ingest. If swallowed then seek immediate medical assistance. Wear personal protective equipment/face protection.

Storage. Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Do not store in aluminum containers. Incompatible Materials. Strong oxidizing agents. Strong acids. Metals.

8. Exposure controls / personal protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

| | |
|---------------------------------|---|
| Eye/face Protection | 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 and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure. |
| Respiratory Protection | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |

9. Physical and chemical properties

| | |
|---|----------------------------|
| Physical State | Solid |
| Appearance | White, Light yellow |
| Odor | No information available |
| Odor Threshold | No information available |
| pH | 9.5-11 1% aq. solution |
| Melting Point/Range | > 300 °C / 572 °F |
| Boiling Point/Range | No information available |
| Flash Point | No information available |
| Evaporation Rate | Not applicable |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | Not applicable |
| Specific Gravity | No information available |
| Solubility | No information available |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | No information available |
| Decomposition Temperature | > 400°C |
| Viscosity | Not applicable |
| Molecular Formula | C10 H12 N2 Na4 O8 . x H2 O |
| Molecular Weight | 380.16 |

10. Stability and reactivity

| | |
|---|---|
| Reactive Hazard | None known, based on information available |
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Incompatible products. |
| Incompatible Materials | Strong oxidizing agents, Strong acids, Metals |
| Hazardous Decomposition Products | Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO ₂), Sodium oxides |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50 Category 4. ATE = 300 - 2000 mg/kg.

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------------|----------------------------------|-------------|-----------------|
| Tetrasodium EDTA | LD50 = 1780 - 2000 mg/kg (Rat) | Not listed | Not listed |

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Severe eye irritant Irritating to respiratory system

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|-------------|------------|------------|------------|------------|------------|
| Ethylenediaminetetraacetic acid, tetrasodium salt hydrate | 194491-31-1 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Tetrasodium EDTA | 64-02-8 | Not listed | Not listed | Not listed | Not listed | Not listed |

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Respiratory system

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|------------------|--|---|------------|--------------------------------------|
| Tetrasodium EDTA | EC50: = 1.01 mg/L, 72h (Desmodesmus subspicatus) | LC50: = 121 - 1592 mg/L, 96h static (Lepomis macrochirus) | Not listed | EC50: = 140mg/l, 48h (Daphnia magna) |

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a

hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

| | |
|-----------------|---------------|
| <u>DOT</u> | Not regulated |
| <u>TDG</u> | Not regulated |
| <u>IATA</u> | Not regulated |
| <u>IMDG/IMO</u> | Not regulated |

15. Regulatory information

United States of America Inventory

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|---|-------------|------|---|-----------------------------|
| Ethylenediaminetetraacetic acid, tetrasodium salt hydrate | 194491-31-1 | - | - | - |
| Tetrasodium EDTA | 64-02-8 | X | ACTIVE | - |

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component | CAS No | DSL | NDL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|---|-------------|-----|-----|-----------|-------|------|------|------|-------|----------|
| Ethylenediaminetetraacetic acid, tetrasodium salt hydrate | 194491-31-1 | - | - | - | - | - | | - | - | - |
| Tetrasodium EDTA | 64-02-8 | X | - | 200-573-9 | X | X | X | X | X | KE-13654 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

| Component | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|------------------|---|---|---|
| Tetrasodium EDTA | - | Use restricted. See item 75. (see link for restriction details) | - |

<https://echa.europa.eu/substances-restricted-under-reach>

Safety, health and environmental regulations/legislation specific for the substance or mixture

| Component | CAS No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|---|-------------|----------------|------------------------------|---------------------------|--|
| Ethylenediaminetetraacetic acid, tetrasodium salt hydrate | 194491-31-1 | Not applicable | Not applicable | Not applicable | Not applicable |
| Tetrasodium EDTA | 64-02-8 | Listed | Not applicable | Not applicable | Not applicable |

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|---|-------------|---|--|----------------------------|------------------------------------|
| Ethylenediaminetetraacetic acid, tetrasodium salt hydrate | 194491-31-1 | Not applicable | Not applicable | Not applicable | Not applicable |
| Tetrasodium EDTA | 64-02-8 | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other information

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Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS