



MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Identification:

- **Key:** 08308
- **Name:** Ethylenediamine Tetraacetic Acid, Disodium Salt, Dihydrate

Catalog Numbers:

BP120-1, BP120-500, NC9058584, O2793-500, S311-10, S311-100, S311-3, S311-500, S311-50KG, S311-50LB, S312-12, S312-125LB, S312-212, S312-500, S316-12, S316-212, S76761, XXS311ET500GM

Synonyms:

- Disodium EDTA dihydrate; EDTA disodium dihydrate; Disodium edetate.

Company Identification:

Fisher Scientific
1 Reagent Lane
Fairlawn, NJ 07410

For information, call:

- 201-796-7100

Emergency Number:

- 201-796-7100

For CHEMTREC assistance, call:

- 800-424-9300

For International CHEMTREC assistance, call:

- 703-527-3887

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	Chemical Name	%	EINECS #
6381-92-6	Disodium ethylenediaminetetraacetate dihydrate	100	unlisted

Text for R-phrases: see Section 16

Hazard Symbols: XN

Risk Phrases: 22 36/37/38

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: white crystalline powder. Warning! Causes respiratory tract irritation. May be harmful if swallowed. Causes eye and skin irritation.

Target Organs: Eyes, skin.

POTENTIAL HEALTH EFFECTS

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.

Inhalation: Causes respiratory tract irritation.

Chronic: No information found.

SECTION 4 - FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician: Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

SECTION 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately,

observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

SECTION 7 - HANDLING AND STORAGE

Handling: Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

EXPOSURE LIMITS

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Disodium ethylenediaminetetraacetate anhydrous	none listed	none listed	none listed
Disodium ethylenediaminetetraacetate dihydrate	none listed	none listed	none listed

OSHA Vacated PELs:

Disodium ethylenediaminetetraacetate anhydrous: No OSHA Vacated PELs are listed for this chemical.

Disodium ethylenediaminetetraacetate dihydrate: No OSHA Vacated PELs are listed for this chemical.

PERSONAL PROTECTIVE EQUIPMENT

Eyes: 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: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Crystalline powder

Color: white

Odor: none reported

pH: 5.3 @ aqueous sol.

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Evaporation Rate: Not applicable.

Viscosity: Not applicable.

Boiling Point: Decomposes

Freezing/Melting Point: 252 deg C (decomposes)

Decomposition Temperature: > 252 deg C

Solubility in water: Soluble in water

Specific Gravity/Density: Not available.

Molecular Formula: C₁₀H₁₄N₂Na₂O₈ · 2H₂O

Molecular Weight: 372.23

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Dust generation, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:

- CAS# 139-33-3: AH4375000
- CAS# 6381-92-6: AH4410000

LD50/LC50:

- CAS# 139-33-3: Oral, mouse: LD50 = 2050 mg/kg; Oral, rabbit: LD50 = 2300 mg/kg; Oral, rat: LD50 = 2 gm/kg.
- CAS# 6381-92-6. Not available.

Carcinogenicity:

Disodium ethylenediaminetetraacetate anhydrous -

- Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Disodium ethylenediaminetetraacetate dihydrate -

- Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology:

No information available.

Teratogenicity:

No information available.

Reproductive Effects:

No information available.

Neurotoxicity:

No information available.

Mutagenicity:

No information available.

Other Studies:

See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

SECTION 13 - DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

SECTION 14 - TRANSPORT INFORMATION

US DOT

- No information available

Canadian TDG

- No information available.

SECTION 15 - REGULATORY INFORMATION

US FEDERAL

TSCA

- CAS# 139-33-3 is listed on the TSCA inventory.
- CAS# 6381-92-6 is not on the TSCA Inventory because it is a hydrate.
- It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3)

(u)(2)).

Health & Safety Reporting List

- None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

- None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

- None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

- None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs

- None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

- None of the chemicals in this product have a TPQ.

SARA Codes

- CAS # 6381-92-6: acute.

Section 313

- No chemicals are reportable under Section 313.

Clean Air Act:

- This material does not contain any hazardous air pollutants.
- This material does not contain any Class 1 Ozone depleters.
- This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

- None of the chemicals in this product are listed as Hazardous Substances under the CWA.
- None of the chemicals in this product are listed as Priority Pollutants under the CWA.
- None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

- None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

Disodium ethylenediaminetetraacetate anhydrous is not present on state lists from CA, PA, MN, MA, FL, or NJ.

Disodium ethylenediaminetetraacetate dihydrate is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

- Hazard Symbols: XN
- Risk Phrases:
 - R 22 Harmful if swallowed.
 - R 36/37/38 Irritating to eyes, respiratory system and skin.
- Safety Phrases:
 - S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

- CAS# 139-33-3: 2
- CAS# 6381-92-6: 2

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

- CAS# 139-33-3 is listed on Canada's DSL List.
- This product has a WHMIS classification of D2B.
- CAS# 139-33-3 is not listed on Canada's Ingredient Disclosure List.
- CAS# 6381-92-6 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

SECTION 16 - ADDITIONAL INFORMATION
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MSDS Creation Date: 2/23/1999, **Revision #3 Date:** 3/04/2004

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.