

EDTA-4Na MSDS

1. Product Name and Identification

- **Product Name:** [EDTA-4Na \(Ethylenediaminetetraacetic Acid Tetrasodium Salt\)](#)
 - **Chemical Formula:** C₁₀H₁₂N₂Na₄O₈
 - **CAS Number:** 64-02-8
 - **Synonyms:** Tetrasodium EDTA, EDTA Tetrasodium Salt
 - **Recommended Use:** Chelating agent, water treatment, cleaning formulations, and laboratory applications.
 - **Manufacturer/Supplier:** [Insert Manufacturer Name and Contact Information]
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2. Composition/Ingredients

- **Chemical Name:** Ethylenediaminetetraacetic Acid Tetrasodium Salt
 - **CAS Number:** 64-02-8
 - **Concentration:** ≥ 99% (by weight)
 - **Impurities:** None known
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3. Hazards Identification

- **Classification:**
 - Eye Irritation: Category 2A
 - Skin Irritation: Category 2
 - Acute Toxicity (Oral): Category 4
 - **Label Elements:**
 - **Signal Word:** Warning
 - **Hazard Statements:**
 - Causes skin and eye irritation.
 - Harmful if swallowed.
 - **Precautionary Statements:**
 - Avoid contact with skin and eyes.
 - Wash hands thoroughly after handling.
 - Do not eat, drink, or smoke when using this product.
 - **Other Hazards:** May cause environmental harm if released in large quantities.
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4. First Aid Measures

- **Inhalation:** Move the person to fresh air. If breathing is difficult, seek medical attention.
 - **Skin Contact:** Wash affected area with soap and water. Remove contaminated clothing. Seek medical advice if irritation persists.
 - **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.
 - **Ingestion:** Rinse mouth with water. Do not induce vomiting. Seek immediate medical attention.
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5. Handling and Storage

- **Handling:**
 - Use in a well-ventilated area.
 - Avoid contact with skin, eyes, and clothing.
 - Wear appropriate personal protective equipment (PPE).
 - **Storage:**
 - Store in a cool, dry, and well-ventilated area.
 - Keep container tightly closed.
 - Protect from moisture and incompatible materials (e.g., strong acids).
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6. Exposure Controls/Personal Protection

- **Exposure Limits:** No specific occupational exposure limits established.
 - **Engineering Controls:** Ensure adequate ventilation or use local exhaust systems.
 - **Personal Protective Equipment (PPE):**
 - **Eye Protection:** Safety goggles or face shield.
 - **Skin Protection:** Chemical-resistant gloves and protective clothing.
 - **Respiratory Protection:** Use a dust mask or respirator if dust is generated.
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7. Physical and Chemical Properties

- **Appearance:** White crystalline powder
- **Odor:** Odorless
- **pH (1% solution):** 10.5 – 11.5
- **Melting Point:** > 300°C (decomposes)
- **Solubility:** Soluble in water
- **Molecular Weight:** 380.17 g/mol
- **Density:** ~0.86 g/cm³
- **Boiling Point:** Not applicable (decomposes)
- **Flash Point:** Not flammable

8. Stability and Reactivity

- **Stability:** Stable under normal conditions of use and storage.
- **Conditions to Avoid:** Excessive heat, moisture, and incompatible materials.
- **Incompatible Materials:** Strong acids, strong oxidizing agents.
- **Hazardous Decomposition Products:** Carbon oxides, nitrogen oxides, and sodium oxides.

9. Toxicological Information

- **Acute Toxicity:**
 - Oral LD50 (Rat): ~2000 mg/kg
- **Skin Irritation:** May cause mild to moderate irritation.
- **Eye Irritation:** Causes irritation with redness and tearing.
- **Chronic Effects:** Prolonged exposure may cause skin sensitization or dermatitis.
- **Carcinogenicity:** Not classified as a carcinogen by IARC, NTP, or OSHA.

10. Disposal Considerations

- **Waste Disposal Methods:** Dispose of in accordance with local, regional, and national regulations.
 - **Packaging Disposal:** Ensure containers are empty before disposal. Rinse thoroughly and recycle if possible.
 - **Environmental Precautions:** Avoid release into waterways or soil.
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