

PRODUCT IDENTIFICATION



Product Name: Trisodium EDTA
CAS Number: 150-38-9
Molecular Formula: $C_{10}H_{13}N_2Na_3O_8$
Molecular Weight: 358.19 g/mol
Grade: Technical Grade
Purity / Concentration: Not Available
Synonyms: Trisodium Ethylenediaminetetraacetic Acid, Trisodium Salt of EDTA

PRODUCT OVERVIEW

Trisodium EDTA is a high-performance technical grade chelating agent supplied as a white crystalline powder. Featuring a 98.5% assay and minimal impurity levels, this compound is essential for effectively binding metal ions in a wide variety of industrial and laboratory applications.

Grade Significance: Technical grade Trisodium EDTA provides a cost-effective solution for industrial processes where high chemical functionality is required, though it is not intended for pharmaceutical or food-grade applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	98.5	95	—	Titration with standardized HCl
Ph Value	pH	10.8	10	11.5	pH meter
Residue After Ignition	%	0.1	—	0.2	Gravimetric
Water Content	%	11.5	—	13	Karl Fischer Titration
Heavy Metals (as Pb)	ppm	ND	—	10	ICP-OES
Iron (Fe)	ppm	5	—	20	ICP-OES
Chloride (Cl ⁻)	ppm	10	—	50	Ion Chromatography
Sulfate (SO ₄ ²⁻)	ppm	15	—	100.0	Ion Chromatography
Nitrilotriacetic Acid Nta	%	0.05	—	0.1	HPLC

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	White crystalline powder	Odor	Odorless
Form	Solid	Boiling Point	360°C (680°F)
Melting / Freezing Point	237°C (459°F)	Specific Gravity	1.01
Solubility	Highly soluble in water, limited ethanol solubility	Molecular Formula	$C_{10}H_{13}N_2Na_3O_8$
Molecular Weight	358.19 g/mol	Vapor Pressure (20°C)	0.0001 mmHg
Density (25°C)	0.5 g/mL		

APPLICATIONS

1. **Water Treatment** — Utilized to sequester heavy metals and control mineral scaling, ensuring improved water quality and system efficiency.
2. **Analytical Chemistry** — Serves as a reliable reagent in titrations and complexometric analyses to accurately determine metal concentrations.
3. **Cosmetics Manufacturing** — Acts as a stabilizer in formulations by chelating metal ions that would otherwise cause product discoloration or degradation.
4. **Industrial Cleaning** — Incorporated into heavy-duty cleaning formulations to prevent metal precipitation and enhance the effectiveness of surfactants.

STORAGE & HANDLING

Proper storage in a cool, dry, and well-ventilated area is critical to maintain product integrity and prevent moisture absorption. Because the product is classified as hazardous with potential for serious eye damage, secure storage is essential to minimize exposure risks and maintain workplace safety.

- Store in a cool, dry place away from direct sunlight.
- Use appropriate PPE, including gloves and goggles, when handling.
- Avoid contact with strong oxidizing agents.
- Ensure containers are tightly sealed to prevent moisture ingress.
- Compatible with HDPE and glass containers.

AVAILABLE PACKAGING

- 2 lbs.
- 5 Lbs.
- 55 Lbs.

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H302+H332 (53.3%): Harmful if swallowed or if inhaled [Warning Acute toxicity, oral; acute toxicity, inhalation]
- H302 (87.8%): Harmful if swallowed [Warning Acute toxicity, oral]
- H318 (66%): Causes serious eye damage [Danger Serious eye damage/eye irritation]
- H319 (25.9%): Causes serious eye irritation [Warning Serious eye damage/eye irritation]
- H332 (62.9%): Harmful if inhaled [Warning Acute toxicity, inhalation]
- H373 (66%): May causes damage to organs through prolonged or repeated exposure [Warning Specific target organ toxicity, repeated exposure]

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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