

PRODUCT IDENTIFICATION



Product Name: Trisodium EDTA Technical Grade

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 Technical Grade is a high-purity chelating agent appearing as a white crystalline powder with a 100% assay. It is specifically engineered to effectively bind metal ions in various industrial applications, ensuring stability and performance in complex formulations.

Grade Significance: Technical Grade signifies that this product is formulated for industrial and manufacturing processes where high performance is required, offering an ideal balance of purity and cost-effectiveness for non-pharmaceutical applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay	%	100.0	99.5	100.5	Titration/Gravimetric
pH	—	10.98	10.431	12.5	pH Meter
Heavy Metals As Pb	ppm	1	—	10	ICP-MS (as Pb)
Iron	ppm	3	—	10	ICP
Lead Pb	ppm	1	—	10	ICP-MS
Chloride Cl	%	ND	—	0.01	ICP
Sulfate (SO_4^{2-})	%	0.0060	—	0.02	ICP-MS

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	greater than 572 °F (NTP, 1992)	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** — Used to sequester heavy metal ions, preventing scale buildup and improving overall water quality in industrial systems.
2. **Analytical Chemistry** — Serves as a reliable reagent in titrations and complexometric analyses to accurately determine metal concentrations in solutions.
3. **Cosmetic Manufacturing** — Incorporated into personal care products to stabilize formulations by chelating metal ions that could otherwise cause degradation or discoloration.
4. **Industrial Cleaning** — Acts as a powerful builder in detergents to enhance cleaning efficiency by neutralizing hard water minerals.
5. **Metal Processing** — Employed in metal finishing and plating baths to maintain ion balance and prevent the precipitation of unwanted metal salts.

STORAGE & HANDLING

Store this product in a cool, dry, well-ventilated area to maintain its chemical integrity and prevent clumping. Proper containment is essential to mitigate health risks, as the material is classified as harmful if swallowed and can cause serious eye damage upon contact.

- 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: Harmful if swallowed
- H318: Causes serious eye damage
- H319: Causes serious eye irritation
- H332: Harmful if inhaled
- H373: May cause damage to organs through prolonged or 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.

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | www.alliancechemical.com

Disclaimer: The information contained herein is believed to be accurate and represents the best information currently available to us. However, Alliance Chemical makes 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.