

# Material Safety Data Sheet

Martrex, Inc.  
P.O. Box 1709  
Minnetonka, MN 55345-3793

## 1. CHEMICAL PRODUCT

Trade Name: EDTA Zinc-16  
Chemical Name: EDTA, Zinc-Disodium Complex  
Product Code: EDTA Zinc-16  
Chemical Formula: C<sub>10</sub>H<sub>12</sub>N<sub>2</sub>O<sub>8</sub>ZnNa<sub>2</sub>  
Chemical Family: Aminocarboxylic Acid Salt  
Synonyms: EDTA Zinc-Disodium Complex  
CAS#: 14025-21-9  
D.O.T. Ship Name: Zinc EDTA Chelate

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Cas#:	Common Name:	ACGIH/PPM		OSHA/PPM	
		TWA	STEL	PEL:	% by Wt.
14025-21-9	EDTA, Zinc-Disodium Complex	None	None	None	90.00%
5064-31-3	Trisodium Nitrilotriacetate	None	None	None	0.20%
7732-18-5	Water	None	None	None	10.00%

## 3. HAZARDS IDENTIFICATION

ROUTE(S) OF ENTRY: Inhalation, Ingestion and Dermal.

POTENTIAL HEALTH EFFECTS: Nitrilotriacetic acid (NTA) and/or its salts are classified by NTP and IARC as suspect carcinogens (Class 2B) based on findings of urinary tract tumors in rats and mice in chronic feeding studies. Based on the doses and exposure conditions required to cause tumors in animals and the low concentration of NTA or its salts present, we don't believe exposure to this product under normal working conditions poses a human cancer risk.

CARCINOGENICITY (NTP): NTP has listed nitrilotriacetic acid (CAS No. 139-13-9) and its salts to cause cancer in experimental animals.

CARCINOGENICITY (IARC): IARC has classified nitrilotriacetic acid and its salts as possibly carcinogenic to humans (group 2B).

CARCINOGENICITY (OSHA): Under criteria of the OSHA Hazard Communication Standard, nitrilotriacetic and its salts would be considered as possibly carcinogenic. Refer to NTP and IARC references.

# Material Safety Data Sheet

Product: EDTA, Zinc-Disodium Complex

#### 4. FIRST AID INFORMATION

**INGESTION:** Give several glasses of water. If vomiting occurs, keep head below hips to reduce risk of aspiration. Give fluids again. Seek medical attention if health effects occur.

**EYES:** Flush eyes with large quantities of running water for a minimum of 15 minutes. If the victim is wearing contact lenses, remove them. Hold eyelids apart during flushing to ensure rinsing of the entire surface of the eye and lids with water. DO NOT let victim rub eye(s). Do not attempt to neutralize with chemical agents. Oils/ointments should not be used at this time. Get medical attention if eye irritation occurs.

**SKIN:** Remove contaminated clothing and equipment. Wash all affected areas with soap and water for at least 15 minutes. Do not attempt to neutralize with chemical agents. Wash any contaminated clothing and shoes before reuse. Obtain medical advice if irritation occurs.

**INHALATION:** Remove to fresh air. If breathing becomes difficult, oxygen may be given, preferably with a physician's advice. If not breathing, give artificial respiration. Get medical attention.

#### 5. FIRE AND EXPLOSION DATA

N.F.P.A. Hazard Ratings: Health: 0 Fire: 1 Reactivity: 0 Special: N/A  
*0 = minimal 1 = slight 2 = moderate 3 = serious 4 = severe N/R = not rated*

Flash Point: N/A Methods Used: N/A  
Flammable Limits: N/A LEL: N/A UEL: N/A  
Autolgnition Temp: N/A

**EXTINGUISHER MEDIA:** This product is non combustible. If involved in a fire, extinguishing media suitable for surrounding materials should be used.

**SPECIAL FIRE FIGHTING PROCEDURES:** As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Evacuate non essential personnel from the fire area. Firefighters should wear full-face, self contained breathing apparatus and impervious protective clothing.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Not considered a fire

### Material Safety Data Sheet

Product: EDTA, Zinc-Disodium Complex

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon and nitrogen are produced by the combustion of this product.

EMERGENCY RESPONSE GUIDEBOOK INFORMATION: None

## 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Stop source of spill. Sweep up spilled solid material, being careful not to create dust. Return sweepings to sweepings to stock or, if contaminated, place into a chemical waste container for disposal.

RCRA HAZARD CLASS: Refer to Section 15: Regulatory Information for RCRA status.

## 7. HANDLING AND STORAGE

HANDLING AND STORAGE: NOTICE: Contains nitrilotriacetic acid or its salt as by-product, which has been found to cause cancer in test animals. In accordance with good industrial practice, handle with due care and avoid unnecessary personal contact. Keep container closed. Isolate from strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: If handling operations lead to dusting, wear a NIOSH approved half mask, air purifying respiratory with dust, mist and fume filters. When using respirator cartridges or canisters, they must be changed frequently (following each use of at the end of the work shift) to assure breakthrough exposure does not occur.

SKIN PROTECTION: Skin contact should be prevented through use of suitable protective clothing, gloves and footwear, selected with regard for use conditions and exposure potential. Consideration must be given both to durability as well as permeation resistance.

EYE PROTECTION: Eye/face protection requirements vary depending upon work environment conditions and material handling practice. Appropriate ANSI Z87 approved equipment should be used for the particular use intended for this material. Use chemical safety glasses with side shields or

### **Material Safety Data Sheet**

**Product: EDTA, Zinc-Disodium Complex**

OTHER PROTECTION: Washing facilities should be available. Wear appropriate equipment to prevent probability of exposure and personal contact.

VENTILATION PROTECTIONS: Local exhaust recommended, mechanical exhaust acceptable.

EXPOSURE LIMITS: Not established.

HYGENIC PRACTICES: Minimize breathing dust. Avoid prolonged or repeated breathing of dust and contact with skin. Remove contaminated clothing; launder before reuse. Cleanse skin thoroughly after contact, before meals and end of work period.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Molecular Weight:	453.6
Boiling Point:	N/A
Melting Point:	N/A
Specific Gravity:	0.65 gr/cm <sup>3</sup>
Vapor Pressure (mm/Hg):	N/A
Reactivity in Water:	None
Solubility in Water:	1,000 gr/ltr (at 20 deg.C)
Appearance and Odor:	White Crystalline Powder, Odorless
Other:	pH (5% Aq.): 7.0 +/- 1.0

## 10. STABILITY AND REACTIVITY

STABILITY: This product is stable at ambient temperatures and atmospheric pressures. It is not self reactive and is not sensitive to physical impact.

CONDITIONS TO AVOID: Contact with strong oxidizers and prolonged storage at elevated temperatures should be avoided.

INCOMPATIBLE MATERIALS: Aqueous solution in contact with aluminum evolves hydrogen. Avoid contact with aluminum, copper, copper alloys and nickel. This product is incompatible with strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products are carbon dioxide, carbon monoxide, nitrogen oxides and water vapor.

# Material Safety Data Sheet

Product: EDTA, Zinc-Disodium Complex

POLYMERIZATION CONDITIONS TO AVOID: Hazardous polymerization is not expected to occur.

## 11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: (Rabbits) not an irritant. It is expected that this product would be minimally irritating to eyes based on tests with similar products.

SKIN EFFECTS: Chronic dermal exposure effects for this product are not known.

DERMAL TOXICITY: Dermal toxicity data is not available for this product. However, it is not considered to be irritating based on tests with chemically similar products.

SENSITIZATION: Not evaluated.

INGESTION EFFECTS: (Rats) LD50>5,000 mg/kg

CARCINOGENICITY/MUTAGENICITY: Nitrotriacetic acid (NTA) and its salts were determined to be "possibly carcinogenic to humans" (Group 2B), by the International Agency for Research on Cancer (IARC) and a compound which "May reasonably be anticipated to be a carcinogen" by the (NTP).

REPRODUCTIVE EFFECTS: EDTA and its sodium salts have been reported to cause birth defects in lab animals only at exaggerated doses that were toxic to mother. Effects are associated with zinc deficiency due to chelation. Exposures having no effect on mother should have no effect on fetus.

NEUROTOXICITY: The neurotoxic effects of this product are not known.

TARGET ORGANS: Target organ effects of this materials are not available.

ADDITIONAL TOXICOLOGICAL INFORMATION: None.

## 12. ECOLOGICAL INFORMATION

Biodegradability:	Not evaluated
Ecotoxicity:	Bluegill LC50 > 1,000 mg/l (96 HR)
Biological Oxygen Demand (BOD5):	0.01 g/g

### Material Safety Data Sheet

Product: EDTA, Zinc-Disodium Complex

Date Printed: 09/09/99

For Chemical Emergencies Call CHEMTREC - Day or Night - at 800-424-9300

Page 6

ADDITIONAL ECOLOGICAL INFORMATION: The Zinc compound in this product is subject to SARA Title III, Section 313 supplier notification/release reporting requirements under the Zinc compound categories.

This product contains approximately 15% Zinc.

### 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: In its unused condition, this product is not considered to be a RCRA defined hazardous waste by characteristics or listings. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing. Dispose in accordance with all local, state and federal regulations.

CONTAINER DISPOSAL INFORMATION: Containers should be cleaned or residual product before disposal. Empty containers should be disposed of in accordance with all applicable laws and regulations.

### 14. TRANSPORT INFORMATION

Proper shipping Name:	Zinc EDTA Chelate	
D.O.T. Hazard Class:	Not regulated by D.O.T.	UN: N/A
Label Requirement:	None	RQ: N/A
Placard:	None	
Packing Group:	N/A	CAS: 14025-21-9

### 15. REGULATORY INFORMATION

STATE RIGHT TO KNOW LAWS: The following ingredients are disclosed for compliance with State Right to Know Laws:

<u>Cas#</u>	<u>Chemical Name</u>	<u>State RTK</u>
14025-21-9	Sodium Zinc EDTA Zincate(2-),N, N1-1, 2-ethanediybis (N-Carboxymethyl)glycinato (4-) -N,N1,0,01,0N,ON1)-disodium (OC-6-21).	Non-hazard

SARA 311/312: Immediate (Acute) hazard/Delayed (chronic) health hazard

OSHA STATUS: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910, 1200.

## Material Safety Data Sheet

Product: EDTA, Zinc-Disodium Complex

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES: This product does not contain ingredients listed in Appendix A and B as Extremely Hazardous substances.

TSCA STATUS: The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

SARA SECTION 313: See Below

<u>CAS#</u>	<u>Chemical Name</u>
14025-21-9	Sodium Zinc EDTA/Zincate (2-), N, N1-1, 2-ethanediyvlis (N-(carboxymethyl) glycinato) (4-)--N,N1,0,01,0N,0N1)-disodium (OC-6-21).

CERCLA, 40 CFR 117,302: This product does not contain ingredients specified in the List of Extremely Hazardous Substances.

CERCLA LISTED SUBSTANCES ARE: None

SARA SUPERFUND SECTION 110: This product does not contain ingredients listed as hazardous substances on the Priority List of CERCLA Hazardous substances.

CALIFORNIA PROPOSITION 65: Not listed

MICHIGAN CRITICAL MATERIALS: This product does not contain ingredients listed on the Michigan Critical Materials Register.

<u>CAA:</u>	None known
<u>CWA:</u>	None known
<u>RCRA:</u>	Not a hazardous waste under RCRA (40 CFR 261)
<u>Canada CEPA:</u>	All components are listed on the Canadian DSL
<u>Canada WHMIS:</u>	Controlled product, Class D2

## 16. OTHER INFORMATION

NOTICE: OSHA STANDARD 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a Hazard Communication Program including training, labeling, Material Safety Data Sheets, and access to written records. We request that you, and it is

### Material Safety Data Sheet

Product: EDTA, Zinc-Disodium Complex

Date Printed: 09/09/99  
In case of Chemical Emergencies Call CHEMTREC - Day or Night - at 800-424-9300

Page 8

KEY LEGEND INFORMATION:

N/A: Not Available  
N/R: Not Rated  
ND: Not Determined  
ACGIH: American Conference of Govr'ntal Industrial Hygienists  
OSHA: Occupational Safety and Health Administration  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit  
NTP: National Toxicology Program  
IARC: International Agency for Research on Cancer  
SARA TITLE III: Superfund Amendments and Reauthorization Act  
CERCLA: Comprehensive response, compensation and Liability Act  
TSCA: Toxic Substance Control Act

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied in made with respect to the information contained herein. This Material Safely Data Sheet was prepared to comply with OSHA Hazard Communication standard. (29 CFR 1910.1200).  
This supersedes any previous information.

**For Chemical Emergencies Call CHEMTREC - Day or Night - at 800-424-9300**