LIQUID EDTA CHELATED ZINC (9% ZINC)

Safety Data Sheet

Revision Date: 3/22/2019 Version 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Name: Liquid EDTA Chelated Zinc (9% Zinc)

Product Form: Mixture

Synonyms: 9% Zinc EDTA, 9% Zinc Chelate Fertilizer

1.2. Intended Use of the Product

Agricultural Industry: Fertilizer

1.3. Name, Address, and Telephone of the Responsible Party

Marco NPK
201 East Benton Street
Clinton, IL 61727
(217) 935-2178
www.marconpk.com

1.4. Emergency Telephone Number

For Transportation Emergencies call Hazmat Response at (800) 229-5252
For Other Emergencies call 911 and/or Appropriate Regulatory Agencies

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US Classification

Ingestion H303
Inhalation H333
Eye Irritation H320
Mild Skin Irritation H316
Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US):

Signal Word (GHS-US): Warning

Hazard Statements (GHS-US):
H320 - Causes eye irritation.
H316 - Causes mild skin irritation.
H303 - May be harmful if swallowed.
H333 - May be harmful if inhaled.

Precautionary Statements (GHS-US):
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P280 - Wear protective gloves, protective clothing, and eye protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other Hazards

Chronic ingestion may cause damage to heart, liver and blood-forming tissues. Ingestion of large quantities may cause

headache, mental impairment, dizziness and may be fatal.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Zinc Diammonium	(CAS No) 67859-51-2	NA	Not classified

Full text of H-Phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Move injured person into fresh air and keep person calm under observation. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Get medical attention immediately.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If frostbite occurs, immerse affected area in warm water (not exceeding 105°F/41°C). Keep immersed for 20 to 40 minutes. Get medical attention immediately. Chemical burns must be treated by a physician.

Eye Contact: Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes. If frostbit occurs, immerse affected area in warm water (not exceeding 105°F/41°C) for at least 15 minutes. If easy to do, remove contact lenses.

Ingestion: Call a physician or poison center immediately. DO NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than the hips to help prevent aspiration. This material is a gas under normal atmospheric conditions and ingestion is unlikely.

Chemical Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Seek medical attention immediately.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Irritation to eyes, skin and respiratory tract.

Inhalation: None expected under normal conditions of use.

Skin Contact: May cause mild skin irritation.

Eye Contact: May cause eye irritation.

Ingestion: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding materials.

Unsuitable Extinguishing Media: None known.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Can release ammonia, nitrous oxide fumes, cyanides, oxides of carbon and phosphorous oxide fumes.

Explosion Hazard: Product is not explosive.

Reactivity: Stable at ambient temperature and under normal conditions of use.

5.3. Advice for Firefighters

Firefighting Instructions: Because fire may produce hazardous decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure demand or positive pressure mode.

Protection During Firefighting: Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Other information: Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

6.1.1. For Non-Emergency Personnel

Protective Equipment: Wear suitable protective clothing, gloves and eye/face protection.

Emergency Procedures: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Ventilate area.

6.1.2. For Emergency Personnel

Protective Equipment: Wear suitable protective clothing, gloves and eye/face protection.

Emergency Procedures: If possible, stop flow of product. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Contact competent authorities after a spill.

6.3. Methods and Material for Containment and Cleaning Up

Small Spills: Absorb with sand or other inert material and dispose of in accordance with applicable regulations.

Large Spills:

Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

Cleanup: Contained materials may be salvaged for use.

Regulatory Requirements: Follow applicable 051-IA regulations for cleanup personnel and EPA requirements for disposal.

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, State, and local regulations if material is not salvageable for use.

Disposal Regulatory Requirements: Follow applicable Federal, State, and local regulations.

Container Cleaning and Disposal: Triple rinse and use rinseate in product tank. Dispose of container per applicable regulations.

6.4. Reference to Other Sections

No additional information available.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Avoid inhalation and contact with skin and eyes. Do not get in eyes, on skin, on clothing. Do not breathe gas. Use only with adequate ventilation. Open valve slowly. Ensure that cylinders are not exposed to heat. When using, do not eat, drink or smoke. Do not pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Observe good industrial hygiene practices.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Compressed gas storage. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50^{o}C/ 122^{o}F. Store in a cool and well-ventilated place. Secure cylinders in an upright position at all times, close all valves when not in use. Secure cylinders from falling or being knocked over.

7.3. Specific End Use(s)

Agricultural Industry: Fertilizer

SECTION 8: EXPORURE CONTROLS/PERSONAL PROTECTION

8.1. Engineering Controls:

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OHSA PELs.

8.2. Administrative Controls:

Respiratory Protection: Respiratory protection may be needed if airborne mists are created. Seek professional advice prior to respirator selection and use. Follow OSHA

	respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/ NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
Protective Clothing Equipment:	Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face protection regulations (29 CFR 1910.133).
Safety Stations:	Make emergency eyewash stations, emergency showers, and washing facilities available in work area.
Contaminated Equipment:	Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your personal protective equipment.
Comments:	Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

8.3. Exposure Controls:

Materials for Protective Clothing:	Chemically resistant materials and fabrics.
Hand Protection:	Wear chemically resistant protective gloves.
Eye Protection:	Chemical goggles or safety glasses.
Skin and Body Protection:	Handle in accordance with good industrial hygiene and safety practice. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
Respiratory Protection:	Not required for normal conditions of use.
Environmental Exposure Controls:	Ensure adequate ventilation, especially in confined areas.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State:	Liquid
Appearance:	Clear Liquid
Odor:	Slight Ammonia Odor
Odor Threshold:	Not available
pH:	7.0-7.5
Evaporation Rate:	Not available
Melting Point:	Not available
Freezing Point:	Below 32^{o}F
Boiling Point:	>212^{o}F
Vapor Pressure:	NA
Vapor Density:	NA
Specific Gravity:	1.319
Percent solids by Weight:	NA
Percent Volatile:	NA
Volatile Organic Compounds:	None
Molecular Weight:	NA
Relative Density	11 lbs/gal
Solubility:	Complete
Partition Coefficient: N-Octanol/Water:	NA
Viscosity:	NA
Explosion Properties:	None known

SECTION 10: STABILITY AND REACTIVITY

10.1.	**Reactivity:**	Stable under normal storage and handling conditions.
10.2.	**Chemical Stability:**	Stable at standard temperature and pressure.
10.3.	**Possibility of Hazardous Reactions:**	Hazardous polymerization will not occur.
10.4.	**Conditions to Avoid:**	Avoid excessive heat.
10.5.	**Incompatible Materials:**	Oxidizers, hypochlorites, strong bases and strong acids.
10.6.	**Hazardous Decomposition Products:**	Ammonia.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity:	Not classified
LD50 and LC50 Data:	Not available
Skin Corrosion/Irritation:	Not classified
ph:	7.0-7.5
Serious Eye Damage/Irritation:	Not classified
ph:	7.0-7.5
Respiratory or Skin Sensitization:	Not classified
Germ Cell Mutagenicity:	Not classified
Teratogenicity:	Not classified
Carcinogenicity:	Not classified
Specific Target Organ Toxicity (Repeated Exposure):	Not classified
Reproductive Toxicity:	Not classified
Specific Target Organ Toxicity (Single Exposure):	Not classified
Aspiration Hazard:	Not classified

SECTION 12: ECOLOGICAL INFORMATION

NA

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Method: Disposal of N-P-K fertilizer may be subject to federal, sate and local regulations. Users of this product should review their operations in terms of applicable federal, state, and local laws and regulations, then consult with the appropriate regulatory agent before discharging or disposing.

RCRA Hazard Class: NA

SECTION 14: TRANSPORT INFORMATION

14.1.	**In Accordance with DOT**	Not regulated for transport
14.2.	**In Accordance with IMDG**	Not regulated for transport
14.3.	**In Accordance with IATA**	Not regulated for transport
14.4.	**In Accordance with TDG**	Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Diammonium Zinc EDTA (67859-51-2)
Listed on the United States TSCA (Toxic Substances Control Act) Inventory

15.2. US State Regulations

If you are located in a state that has an OSH program approved by OSHA, you may be under state jurisdiction rather than federal jurisdiction and your state may have more stringent requirements than OSHA. You should consult your state regulations to ensure compliance.

15.3. Canadian Regulations

This product is not offered for sale in Canada.

SECTION 16: OTHER INFORMATION

GHS Full Text Phrases:

H303	May be harmful if swallowed
H316	Causes mild skin irritation
H320	Causes eye irritation
H333	Maybe harmful if inhaled

NFPA Health Hazard: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA Fire Hazard: 0 - Materials that will not burn.

NFPA Reactivity: 0- Normally stable, even under fire exposure conditions, and area not reactive with water.

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