



ZINC-9 PLUS

Safety Data Sheet

Revision Date: 4/21/2023

Version 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Name: ZINC-9 PLUS

Product Form: Mixture

Synonyms: Zinc-9

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

Toxic if swallowed H301

Eye Irritation H320

Skin Irritation H315

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.

H315 - Causes skin irritation.

H301 - Toxic if swallowed

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

Very toxic to aquatic life with long lasting effects.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Trade Secret	Component A	TS	Not classified
Ammoniated Zinc	(CAS No) 1314-13-2	8-13	Not classified
Ammonium hydroxide	(CAS No) 1336-21-6	2.0-2.9	Not classified

Full text of H-Phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

- General:** Immediately call a poison center or doctor/physician.
- Inhalation:** Not an expected route of exposure. If symptomatic, move to fresh air.
- Skin Contact:** IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
- Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- Ingestion:** Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell.

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 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

Note to Physician: Treat symptomatically.

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

Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Store locked up. Store in a safe place away from pete. KEEP OUT OF THE REACH OF CHILDREN. Store away from excessive heat. The product will freeze. Always keep container closed. Never store the product in other container than its original container. Bulk product shall be stored and handled in fiberglass, PVC, polypropylene or plastic equipment. Keep away from galvanized piping and long term nylon storage. Container should be nonreactive with ammonia. Do not use any non-ferrous metals such as copper, brass, bronze, aluminum, tin, and zinc metals.

Incompatible Materials: Strong Acids. Bleach. Galvanized metal. Copper. Brass. Bronze. Aluminum Alloys.

7.3. Specific End Use(s)

Agricultural Industry: Fertilizer

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure Guidelines:

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammoniated Zinc 1314-13-2	STEL: 10 mg/m ³ respirable particulate matter TWA: 2 mg/m ³ respirable particulate matter	TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	IDLH: 500 mg/m ³ Ceiling: 15 mg/m ³ dust TWA: 5 mg/m ³ dust STEL: 10 mg/m ³ fume

8.2. Administrative Controls:

Respiratory Protection: A NIOSH/MSHA approved air purifying respirator with an approved ammonia gas cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

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:	Colorless Liquid
Odor:	Pungent
Odor Threshold:	Not available
pH:	9.7-10.5
Evaporation Rate:	Not available
Melting Point:	Not available
Freezing Point:	Not available
Boiling Point:	Not available
Vapor Pressure:	Not available
Vapor Density:	Not available
Specific Gravity:	Not available
Percent solids by Weight:	Not available
Percent Volatile:	Not available
Volatile Organic Compounds:	Not available
Molecular Weight:	Not available
Relative Density	1.2-1.3
Solubility:	Not available
Partition Coefficient: N-Octanol/Water:	Not available
Viscosity:	Not available
Explosion Properties:	Not available

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:	Strong Acids. Bleach. Galvanized metal. Copper. Brass. Bronze. Alum Alloys.
10.6. Hazardous Decomposition Products:	Sulfur dioxide. Sulfur trioxide. Ammonia.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Likely Routes of Exposure

Eye Contact:	Avoid contact with eyes.
Skin Contact:	Avoid contact with skin.
Inhalation:	Do not inhale.
Ingestion:	Harmful if swallowed.

11.2. Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium hydroxide 1336-21-6	= 350 mg/kg (Rat)	-	-
Component A	= 2840 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Ammoniated Zinc 1314-13-2	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

11.3. Symptoms related to the physical, chemical and toxicological characteristics

Symptoms: Please see section 4 of this SDS for symptoms.

11.4. Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

Carcinogenicity: Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC, or NTP.

11.5. Numerical measures of toxicity

Not determined

SECTION 12: ECOLOGICAL INFORMATION

12.1. Ecotoxicity

Very toxic to aquatic life with long lasting effects.

12.2. Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Ammonium hydroxide 1336-21-6		8.2: 96 h Pimephales promelas mg/L LC50	0.66: 48 h Daphnia pulex mg/L EC50 0.66: 48 h water flea mg/L EC50
Component A		reticulata mg/L LC50 semi-static 32.2 - 41.9: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 5.2 - 8.2: 96 h Oncorhynchus mykiss mg/L LC50 static 126: 96 h Poecilia reticulata mg/L LC50 18: 96 h Cyprinus carpio mg/L LC50 250: 96 h Brachydanio rerio mg/L LC50 420: 96 h Brachydanio rerio mg/L LC50 semi-static 480: 96 h Brachydanio rerio mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50	14: 48 h Daphnia magna mg/L LC50

Ammoniated Zinc 1314-13-2		1.55: 96 h Danio rerio mg/L LC50 static	
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12.3. Persistence/Degradability

Not determined.

12.3. Bioaccumulation

There is no data for this product.

12.3. Mobility

Chemical name	Partition coefficient
Component A	-5.1

12.3. Other Adverse Effects

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal of Wastes: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Contaminated Packaging: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

California Hazardous Waste Status:

Chemical Name	California Hazardous Waste Status
Ammonium hydroxide 1336-21-6	Toxic Corrosive
Ammoniated Zinc 1314-13-2	Toxic

SECTION 14: TRANSPORT INFORMATION

Note: Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

14.1. In Accordance with DOT Not regulated for transport

14.2. In Accordance with IMDG This material may meet the definition of a marine pollutant

14.3. In Accordance with IATA Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ammonium hydroxide 1336-21-6	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium hydroxide	1000 lb			X
Ammoniated Zinc		X		

15.2. US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ammonium hydroxide 1336-21-6	X	X	X
Component A		X	X
Ammoniated Zinc 1314-13-2	X	X	X

15.3. International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/E LINCS	ENCS	IECSC	KECL	PICCS	AICS
Ammonium hydroxide	ACTIVE	X	X	X	X	X	X	X
Component A	ACTIVE	X	X	X	X	X	X	X
Zinc Oxide	ACTIVE	X	X	X	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - Europe Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Existing and New Chemical Substances

KECL - Korean Existing and New Chemical Substances

PICCS - Philippines Existing and New Chemical Substances

AICS - Australian Existing and New Chemical Substances

SECTION 16: OTHER INFORMATION

GHS Full Text Phrases:

H315	Causes skin irritation
H301	Toxic if swallowed
H320	Causes eye irritation

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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