



Safety Data Sheet

Issue Date: 01-Jun-2006

Revision Date: 20-Mar-2014

Version 1

1. IDENTIFICATION

Product Identifier

Product Name CNI ZINC NITRATE SOLUTION

Other means of identification

SDS # CNI-026

UN/ID No UN1514

Recommended use of the chemical and restrictions on use

Recommended Use Plant Nutrients.

Details of the supplier of the safety data sheet

Supplier Address

CNI AgriMinerals
P.O. Box 3706
Albany, GA 31706

Emergency Telephone Number

Company Phone Number 1-229-883-5538 (Business)

1-229-439-0842 (fax)

Emergency Telephone (24 hr) Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Appearance Clear liquid

Physical State Liquid

Classification

Carcinogenicity	Category 1B
Oxidizing Liquids	Category 2

Signal Word

Danger

Hazard Statements

May cause cancer

May intensify fire; oxidizer



Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Keep away from heat
 Keep/Store away from clothing/heat/combustible materials
 Take any precaution to avoid mixing with combustibles

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 In case of fire: Use CO2, dry chemical, alcohol foam, and water spray for extinction

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Harmful to aquatic life with long lasting effects

Unknown Acute Toxicity

24% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family Inorganic metal salt.

Chemical Name	CAS No	Weight-%
Soluble Zinc	Proprietary	17 (Included in Zinc Nitrate solution)
Nitrate Nitrogen	Proprietary	7 (Included in Zince Nitrate solution)
Zinc Nitrate Solution	Proprietary	100

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

- Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediately call a poison center or doctor/physician.
- Skin Contact** IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. Get medical attention if irritation develops or persists.
- Inhalation** Remove to fresh air. Seek medical attention if irritation develops or persists.
- Ingestion** If conscious, give water or milk. Immediately call a poison center or doctor/physician.

Most important symptoms and effects

Symptoms	Direct contact may cause skin or eye irritation. Inhalation may cause respiratory tract irritation. Ingestion may result in nausea, fever, and stomach cramps. 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.
-----------------	---

Indication of any immediate medical attention and special treatment needed

Notes to Physician	Overexposure may aggravate pre-existing skin and lung disorders. Treat symptomatically.
---------------------------	---

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Cool fire exposed containers and structures with water. Do not release runoff from fire control methods to sewers or waterways. Water spray (fog). Carbon dioxide (CO₂). Dry chemical. Alcohol resistant foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

When dehydrated, this product is a strong oxidizer. Contact with oxidizable substances may result in ignition, violent combustion, or explosion in rare cases. May intensify fire; oxidizer.

Hazardous Combustion Products Metal oxide/oxides. Nitrogen oxides (NO_x).

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions	Use personal protective equipment as required.
Environmental Precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so. Recover product for reuse when possible.
Methods for Clean-Up	Neutralize with an alkaline material. Absorb the spill with spill pillows or inert solids such as clay or vermiculite, and transfer contaminated material to suitable containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling	Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use in accordance with product label instructions. Keep away from heat. Take any precaution to avoid mixing with combustibles.
--------------------------------	--

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep away from food, drink and animal feeding stuffs. Keep/store only in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep locked up and out of reach of children. Product may be corrosive to aluminum, mild steel and brass. Store in HDPE, fiberglass or stainless steel containers. Use only stainless steel, PVC or polypropylene fittings. Do not store at elevated temperatures. Do not store near combustible materials.
Packaging Materials	Empty containers should be triple rinsed and use the rinsate in product tank. Reuse of empty drums or containers is not recommended. Dispose of all empty containers properly, in accordance with Federal, State and Local regulations.
Incompatible Materials	Easily oxidizable compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Local exhaust is normally sufficient. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Splash proof chemical safety goggles.

Skin and Body Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory Protection Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection. Seek professional advice prior to respirator selection and use. 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 program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Not determined
Appearance	Clear liquid	Odor Threshold	Not determined
Color	Clear		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	Not available	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-not applicable	
Upper Flammability Limits	Not applicable	
Lower Flammability Limit	Not applicable	

Vapor Pressure	Not determined
Vapor Density	Not determined
Specific Gravity	Not determined
Water Solubility	Soluble in water
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not determined
Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	May intensify fire; oxidizer

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Elevated temperatures. Avoid evaporating to dryness.

Incompatible Materials

Easily oxidizable compounds.

Hazardous Decomposition Products

Metal oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Soluble Zinc	> 90 mL/kg (Rat)	-	-
Nitrate Nitrogen	> 90 mL/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Zinc Nitrate Solution		Group 2A		X

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity

24% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects. May cause eutrophication.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Zinc Nitrate Solution		7.8: 96 h Cyprinus carpio mg/L LC50 static		

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

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

Zinc Nitrate Solution	Toxic Ignitable Reactive
-----------------------	--------------------------------

14. TRANSPORT INFORMATION

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

DOT

UN/ID No UN1514
 Proper Shipping Name Zinc Nitrate Solution
 Hazard Class 5.1
 Packing Group II

IATA

UN/ID No UN1514
 Proper Shipping Name Zinc Nitrate Solution
 Hazard Class 5.1
 Packing Group II

IMDG

UN/ID No UN1514
 Proper Shipping Name Zinc Nitrate Solution
 Hazard Class 5.1
 Packing Group II
 Marine Pollutant This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Not determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Zinc Nitrate Solution	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
 Chronic Health Hazard Yes
 Fire Hazard No

Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Zinc Nitrate Solution -		100	1.0

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc Nitrate Solution (100)	1000 lb	X		X

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Zinc Nitrate Solution	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	2	0	0	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	Not determined	Not determined	Not determined	Not determined

Issue Date: 01-Jun-2006
Revision Date: 20-Mar-2014
Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet