

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 PRODUCT IDENTIFIER:

TRADE NAME: NUTRISYNC® ZINC 13-0-1, 2% ZINC

1.2 RECOMMENDED USE: FOR THE PREVENTION AND CORRECTION OF ZINC DEFICIENCIES IN CROPS

1.3 SUPPLIER DETAILS:

LOVELAND PRODUCTS, INC.

P.O. Box 1286 • Greeley, CO 80632-1286

1.4 24-Hour Emergency Phone: 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565 – **Product Information:** 1-888-574-2878 (LPI-CUST)
U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.2 Classification according to 29 CFR 1910.1200

Acute Toxicity – Oral

Category 4

H302

Label elements



Signal word:

WARNING

Hazard Statement:

H302 – Harmful if swallowed.

Precautionary

Statement:

(Prevention):

P264 – Wash hands and face thoroughly after handling.

P270 – Do not eat, drink or smoke when using this product.

Precautionary

Statement:

(Response):

P301+P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 – Rinse mouth.

Precautionary

Statement:

(Storage):

Not applicable or required.

Precautionary

Statement:

(Disposal):

P501 – Dispose of contents/container in accordance with local, state and federal regulations.

2.3 Other hazards

None known



SAFETY DATA SHEET

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SDS REVISIONS: SEC. 1, 2, 3

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3 COMPOSITION, INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical Name:	CAS No.	Concentration [%]
Urea	57-13-6	Proprietary
Ammonium Nitrate	6484-52-2	Proprietary
Anhydrous Ammonia	7664-41-7	Proprietary
Potassium Acetate	127-08-2	Proprietary
Copper Citrate	6132-04-3	Proprietary
Ferrous Citrate	2238-05-8	Proprietary
Manganese Citrate	10024-66-5	Proprietary
Zinc Citrate	546-46-3	Proprietary
Water	7732-18-5	Balance

4 FIRST AID MEASURES

4.3 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

- Eye contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Ingestion:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Skin contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Inhalation:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

4.4 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Harmful if swallowed.

4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatically. Symptoms may be delayed.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565

Take container, label or product name with you when seeking medical attention.

NOTES TO PHYSICIAN: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5 FIRE FIGHTING MEASURES

5.3 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Considered non-combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO₂), foam, water spray or fog.

5.4 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, oxides of carbon, oxides of sulfur, ammonia, and oxides of nitrogen may be produced.

5.5 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.



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6 ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of vapors and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers, or watercourses.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to Remove residual contamination.
Never return spills to original containers for re-use.

7 HANDLING AND STORAGE

7.3 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Avoid inhalation of vapors / spray and contact with eyes, skin and clothing. Do not breathe mist or vapor. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Use care in handling/storage. Wash before eating, drinking and/or smoking.

7.4 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store in original containers only. Keep containers tightly closed when not in use. Store in a cool, dry, well-ventilated area, preferably in a locked storage area away from children, feed and food products, and seed. Store above 32°F (0°C). Do not contaminate water, food, or feed by storage or disposal.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.3 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

AIHA WEELS

Components	Type	Value
Urea (CAS: 57-13-6)	TWA	10 mg/m ³
ACGIH® TLVs® Ammonia (CAS: 7664-41-7)	TWA	17 mg/m ³

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		

8.4 EXPOSURE CONTROLS:

Engineering Measures

Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.
Skin Protection: Chemical resistant clothing is recommended. Routinely wash work clothing and protective equipment to remove contaminants. The use of chemical-resistant gloves is recommended when handling undiluted product. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.
Respiratory Protection: In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment. Wear respiratory protection during operations where spraying or misting occurs. In the U.S.A., if respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.



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9 PHYSICAL AND CHEMICAL PROPERTIES

9.3 APPEARANCE : Clear liquid
ODOR: Mild.
ODOR THRESHOLD: 0.1 ppm.
COLOR: Dark green.
pH: 6.55 (neat).
MELTING POINT / FREEZING POINT: No data available
BOILING POINT: 212 °F / 100 °C
FLASH POINT: Does not flash
FLAMMABILITY (solid, gas): Does not support combustion.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: Not applicable.
VAPOR PRESSURE: No data available.
SOLUBILITY: Soluble
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data.
AUTO-IGNITION TEMPERATURE: No data available.
DECOMPOSITION TEMPERATURE: Not determined
VISCOSITY: Not determined
SPECIFIC GRAVITY (Water = 1): 1.195 g/ml
DENSITY: 9.97 lbs/gal. / 1.19 kg/L

Note: These physical data are typical values based on material tested but may vary from sample to sample.
Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10 STABILITY AND REACTIVITY

10.3 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No reactions known under normal use conditions. Will not polymerize.

10.4 CONDITIONS TO AVOID

Excessive heat.

10.5 INCOMPATIBLE MATERIALS

Strong oxidizers.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include but are not limited to: oxides of carbon, oxides of sulfur, ammonia, and oxides of nitrogen.

11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Ingestion. Skin contact, eye contact.

LD₅₀ Oral (rat): 1,480 – 1,770 mg/kg (Ammonium Nitrate) (TFI Product Testing Results, OECD Guideline 425)

LD₅₀ Dermal (rat): >5,000 mg/kg (Ammonium Nitrate) (TFI Product Testing Results, OECD Guideline 402)

LC₅₀ (rat): >88,800 mg/L (Ammonium Nitrate) 4HR

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): No data available

Eye Irritation (rabbit): No data available

Specific Target Organ Toxicity: Single exposure: No data available.

Aspiration: No data available

Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenicity: No data available

Germ Cell Mutagenicity: No data available

Interactive Effects: None known



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12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicological Data

Components	Species	Test Results
Ammonium Nitrate (CAS: 6484-52-2)	Aquatic organisms	
	Fish	96hr LC ₅₀ 95 – 102 mg/L
	Daphnia	24hr EC ₅₀ 124.9 mg/L

Drift or runoff may adversely affect non-target plants.
Do not apply directly to water.
Do not contaminate water when disposing of equipment wash water.
Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: The product is not readily biodegradable

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY IN SOIL

This product is water soluble and may disperse in soil.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Do not reuse containers for any purpose. Container is recyclable, and is to be disposed of at a container collection site. Contact your local dealer/distributor for the location of the nearest collection site. Before taking container to the collection site: Triple or pressure-rinse the empty container, adding the rinsate to the spray tank. Make the empty container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Do not contaminate water, food or feed by storage or disposal.

14 TRANSPORT INFORMATION

14.3 LAND TRANSPORT

DOT Shipping Description: NOT REGULATED

U.S. Surface Freight Classification: FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI; LIQUID (NMFC 68140, SUB 6; CLASS 70)

15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:

NFPA

1	Health	0	Least
0	Flammability	1	Slight
0	Instability	2	Moderate
		3	High
		4	Severe

HMIS

1	Health
0	Flammability
0	Reactivity
B	PPE



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SARA Hazard Notification/Reporting

SARA Title III Hazard Category:

Immediate Y
Delayed N

Fire N
Reactive N

Sudden Release of Pressure N

Reportable Quantity (RQ) under U.S. CERCLA: Ammonia (CAS: 7664-41-7) 100 lbs.

SARA, Title III, Section 313: Ammonia (CAS: 7664-41-7)

RCRA Waste Code: Not listed

CA Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

16 OTHER INFORMATION

MSDS STATUS: Sections 1, 2, 3 revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

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