8% AM COPPER DATE OF ISSUE: 04/22/15 SDS NUMBER: 1000368176-15-LPI SDS REVISIONS: FORMAT **SUPERSEDES: 10/30/12**

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

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

PRODUCT IDENTIFIER:

TRADE NAME: 8% AM COPPER 6-0-0

1.2 RECOMMENDED USE: AGRICULTURAL PLANT NUTRIENT COMPLEX

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

U.S. Coast Guard National Response Center: 1-800-424-8802

HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910.1200

Eye Damage/Irritation H320 Category 2B Acute Toxicity/Oral Category 4 H302

2.2 Label elements



Signal word: WARNING

H320 - Causes eye irritation. Hazard Statement: H302 - Harmful if swallowed.

Precautionary

Statement: P264 - Wash hands and face thoroughly after handling.

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

(Prevention): P301+P312 - IF SWALLOWED: Call a Poison Center or doctor/physician if you feel unwell.

P330 - Rinse mouth. Precautionary

Statement: P305+P351+P338 - IF IN EYES: Rinse with water for 15 to 20 minutes. Remove contact lenses, if present, and

(Response): continue rinsing eyes.

P337+P313 - If eye irritation persists: Get medical advice/attention.

Precautionary Statement:

(General): P101+P102+P103 - If medical advice is needed, have product container or label available. Keep out of reach of children.

Read label before use

2.3 Other hazards

None known

3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

Classification according to 29 CFR 1910.1200

3.2 Mixtures

Chemical Name: CAS No. Classification Concentration

 Eye Irrit. 2B; H320
 [%]

 Ammonium Hydroxide
 1336-21-6
 Acute tox, Oral.: 4 H302
 32.00

 Copper Sulfate
 7758-99-8
 32.00

 Citric Acid
 77-92-9
 7.25

 Water
 7732-18-5
 Balance

4. FIRST AID MEASURES

4.1 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

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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.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Eye irritation. 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

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Foam, carbon dioxide (CO₂), dry powder, water spray. Do not use water jet as this will spread the fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, oxides of carbon and silicon dioxide can be released.

5.3 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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ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of vapors, dusts 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

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is Methods for Clean-Up:

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.

HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing

immediately if fertilizer gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as

possible, wash thoroughly and change into clean clothing.

7.2 CONDITIONS FOR SAFE STORAGE:

Store in original containers only. Keep containers tightly closed when not in use. Store in a cool, dry Requirements for Storage Areas and Containers:

well-ventilated area, preferably in a locked storage area away from children, feed and food products, and seed. Store at ambient temperatures. Do not contaminate water, food, or feed by storage or

disposal.

EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (ACGIH) TLVs

Components Value Type

No data available

U.S. Workplace Exposure Level (OSHA) PELs

Components Value

No data available

Biological limit values

ACGIH Biological Exposure Indices

Components Value Specimen

No listings

8.2 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 dusts or vapors, use suitable respiratory equipment such as

MSHA/NIOSH TC-21C or NIOSH approved respirator with N, R, P or HE filter. Wear respiratory protection during operations where spraying or misting occurs. 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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PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE:

ODOR: Slight ammonia. ODOR THRESHOLD: No data available. COLOR: Dark blue.

8.5.

MELTING POINT / FREEZING POINT: No data available

BOILING POINT: >200°F (>93°C) FLASH POINT: Not flammable FLAMMABILILITY (solid, gas): No data available.

UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.

VAPOR PRESSURE: No data available.

SOLUBILITY: Soluble

PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.

AUTO-IGNITION TEMPERATURE: No data available. DECOMPOSITION TEMPERATURE: No data available VISCOSITY, dynamic: No data available SPECIFIC GRAVITY (Water = 1): 1.259 g/ml

BULK DENSITY: 10.51 lbs./gal. / 1.26 kg/L

These physical data are typical values based on material tested but may vary from sample to sample. Note:

Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

10.1 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

None known.

10.5 INCOMPATIBILE MATERIALS

None known.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Can include ammonia, oxides of phosphorous, phosphine, and oxides of carbon.

11. TOXICOLOGICAL INFORMATION

11.1 LIKELY ROUTES OF EXPOSURE

Eve contact, skin contact, Ingestion.

LC₅₀ (rat): No data available

LD₅₀ Oral (rat): 5,040 mg/kg (Citric Acid). LD₅₀ Dermal (rat): No data available. Acute Toxicity Estimates: No data available Skin Irritation (rabbit): May cause slight irritation Eye Irritation (rabbit): Causes eye irritation.

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

12.1 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. This product is not intended for use in aquatic settings.

Ecotoxicological Data

Components Species Test Results

No data available

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: No data available

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Readily biodegradable.

12.4 MOBILITY IN SOIL

No data available.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Do not reuse container. Plastic: Triple rinse (or equivalent), adding rinse water to spray tank, then offer for recycling at an ACRC site (go to http://www.acrecycle.org/ for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water, food, or feed by storage or disposal. Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

14.1 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 HMIS

1Health0Least1Health0Flammability1Slight0Flammability0Instability2Moderate0Reactivity3HighBPPE

4 Severe

SAFETY DATA SHEET

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SARA Hazard Notification/Reporting

SARA Title III Hazard Category:

Immediate Delayed Fire Reactive __N__ _N__ Sudden Release of Pressure

__N__

Reportable Quantity (RQ) under U.S. CERCLA: Ammonium Hydroxide (CAS: 1336-21-6) 1000 lbs.; Copper (Cupric) Sulfate (CAS: 7758-98-7) 10 lbs. SARA, Title III, Section 313: Ammonium Hydroxide (CAS: 1336-21-6); Copper Compounds

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

SDS STATUS: All sections reviewed; change in format **PREPARED BY:** Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

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