1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 PRODUCT IDENTIFIER:
TRADE NAME: N-PHURIC® 15/49 15-0-0 16S

1.2 RECOMMENDED USE:
FERTILIZER

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: 1-866-944-8856
U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to 29 CFR 1910.1200
Eye Irritation Category 1  H318
Skin Corrosion / Irritation Category 1B  H314
Acute Toxicity (Oral) Category 5  H335

2.2 Label elements
Signal word: DANGER
Hazard Statement: H318 – Causes serious eye damage.
H314 – Causes severe skin burns and eye damage.
H335 – May cause respiratory irritation.
H333 – May be harmful if inhaled.
H303 – May be harmful if swallowed.

P264 - Wash thoroughly after handling.
P271 – Use only outdoors or in a well-ventilated area.
P273 – Avoid release to the environment.
P280 – Wear protective gloves / eye protection / face protection.

Precautionary Statement: (Response): P303+P361+P353 - IF ON SKIN: Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P312 – IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P310 – Immediately call a POISON CENTER or doctor / physician.
P340 – Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363 – Wash contaminated clothing before reuse.
P391 – Collect spillage.

Precautionary Statement: (Storage): P403+P233 – Store in a well-ventilated place. Keep container tightly closed.
P405 – Store locked up.

2.3 Other hazards
None known

KEEP OUT OF REACH OF CHILDREN –
Appearance and odor: Light purple liquid with no odor.
DANGER
Potential Health effects
Routes of exposure Eye contact, skin contact, inhalation. Avoid breathing spray mist.
Eyes Causes serious eye damage.
Skin Causes severe skin burns.
Inhalation May be harmful if inhaled.
Ingestion May be harmful if swallowed.

Target organs Skin. Eyes. Inhalation.
Signs and symptoms May be harmful if absorbed through skin.
Potential environmental effects This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have harmful or damaging effect on the environment.
3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Classification according to 29 CFR 1910.1200

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Classification</th>
<th>Concentration [%]</th>
</tr>
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<tbody>
<tr>
<td>Monocarbamide dihydrogen sulfate</td>
<td>21351-39-3</td>
<td>Skin Corr. 1B; H314</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>STOT SE; H335</td>
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</tr>
</tbody>
</table>

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.

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.

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 centre or doctor. Do not give anything by mouth to an unconscious person.

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: Inhalation: May cause respiratory irritation. Eyes: Causes serious eye damage. Skin: Causes severe skin burns and eye damage.

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: Probable mucosal damage may contraindicate the use of gastric lavage. 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: Dry chemical, carbon dioxide (CO₂), alcohol foam, foam, water spray or fog. 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, hazardous by-products 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.
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

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Avoid inhalation of mists, vapors / spray and contact with eyes, skin and clothing. Do not breathe mists 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.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store in cool, dry place. Store in original container. Keep tightly closed. Do not reuse empty container. Product will become thicker at cold temperatures but effectiveness will not be affected. Warm product before use. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

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<thead>
<tr>
<th>Components</th>
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<th>Value</th>
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<tbody>
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Biological limit values

<table>
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<tbody>
<tr>
<td>No listings</td>
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</tbody>
</table>

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: Coveralls worn over long-sleeved shirt and long pants. Chemical-resistant gloves. Chemical-resistant footwear plus socks.

Respiratory Protection: In case of inadequate ventilation or risk of inhalation of mists 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.
9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE: Liquid
ODOR: Odorless.
ODOR THRESHOLD: No data available.
COLOR: Light purple.
pH: 1.0 (10% solution)
MELTING POINT / FREEZING POINT: No data available
BOILING POINT: 212°F (100°C) (Decomposes at 230°F)
FLASH POINT: Does not flash
FLAMMABILITY (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.
SPECIFIC GRAVITY (Water = 1): 1.51 g/ml
BULK DENSITY: 12.60 lbs./gal / 1.51 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

10.1 REACTIVITY
Stable

10.2 CHEMICAL STABILITY
Stable under normal temperature conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS
Corrosive to 304 stainless steel. Slightly corrosive to 316 stainless steel. Will not polymerize.

10.4 CONDITIONS TO AVOID
Avoid contact with hypochlorites, sulfides, or alkaline materials. Avoid storage, piping, or handling systems made of copper, zinc, or their alloys (bronze, brass, galvanized metals, etc.).

10.5 INCOMPATIBLE MATERIALS
Hypochlorites, sulfides, or alkaline materials. Incompatible with nylon and nylon beads.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS
Heating to dryness may cause the release of carbon dioxide gas.

11. TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE
Eye contact. Skin contact.
LD₅₀ (rat): No data available.
LD₅₀ Oral (rat): 350 mg/kg
LD₅₀ Dermal (rat): >2,000 mg/kg
Acute Toxicity Estimates: No data available.
Skin Irritation (rabbit): May be corrosive to skin.
Eye Irritation (rabbit): Corrosive.
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
12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY
A toxic hazard to fish. Avoid spills or release to watercourses. 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

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
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</thead>
<tbody>
<tr>
<td>Product</td>
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</table>

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: No data available.

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
Wastes may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at http://www.acrecycle.org/. Do not contaminate water, food or feed by storage or disposal.

14 TRANSPORT INFORMATION

14.3 LAND TRANSPORT
DOT Shipping Description: UN1760, CORROSIVE LIQUIDS, N.O.S. (MONOCARBAMIDE DIHYDROGENSULFATE), 8, III ERG GUIDE 154

NOTE: DOT CORROSIVE TO ALUMINUM AND STEEL. NOT REGULATED BY DOT IF TRANSPORTED BY MOTOR VEHICLE OR RAILCAR IN PACKAGING THAT WILL NOT REACT DANGEROUSLY OR BE DEGRADED BY THIS MATERIAL, 49CFR 173.154(D)

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

15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

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<td>3 Health</td>
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<tr>
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<tr>
<td>0 Instability</td>
<td>0 Reactivity</td>
</tr>
<tr>
<td>2 Moderate</td>
<td>B PPE</td>
</tr>
<tr>
<td>3 High</td>
<td></td>
</tr>
<tr>
<td>4 Severe</td>
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</tbody>
</table>
SARA Hazard Notification/Reporting
SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N Delayed N Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed
SARA, Title III, Section 313: Not listed
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: Format revised.
PREPARED BY: Registrations and Regulatory Affairs REVIEWED BY: Environmental Health and Safety

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