

MATERIAL SAFETY DATA SHEET

N-pHURIC® 10/55

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

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED FOR:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

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

PRODUCT NAME: N-pHURIC® 10/55 10-0-0 + 18(S)
CHEMICAL NAME: Urea Sulfate; Monocarbamide dihydrogen sulfate
CHEMICAL FAMILY: Organic acid solution
EPA REG. NO.: not applicable
MSDS Number: 7000214-11c-LPI

MSDS Revisions: Sections 2, 9, 14

Date of Issue: 07/28/11

Supersedes: 03/21/11

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION - May be harmful if swallowed, inhaled or absorbed through skin. May cause eye and skin irritation. Avoid contact with eyes, skin and clothing. Avoid contact with open cuts or sores. Avoid breathing vapors. Use with adequate ventilation. Eye protection and gloves are suggested when handling undiluted product. Wash thoroughly after handling and using this product. In case of contact, flush with water. Get medical attention for eyes. This liquid fertilizer is derived from a proprietary blend of Urea and Sulfuric Acid. Nausea and vomiting could be expected upon large dose ingestion. The acute ingestive effects are described as nausea, chills, and diarrhea. Eye or skin contact with these products could cause irritation (particularly in sensitive persons), and respiratory irritation could be expected from the unprotected inhalation of fertilizer mists. Product users should avoid prolonged or repeated skin contact by wearing impervious gloves, long sleeve shirt, long pants, socks and rubber boots. Goggles for eye protection are recommended.

This product is a dark blue-green liquid with no odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Total Nitrogen (N) (from Urea)	10.00	Mixture 57-13-6	none established 10 mg/m ³ *
Sulfur (S) (Sulfuric Acid Equivalent)	18.00 (55.00)	Mixture 7664-93-9	none established 0.2 mg/m ³ T
Fertilizer salts and inert ingredients	72.00		

4. FIRST AID MEASURES

If in eyes: Flush with clean running water for at least 15 minutes. If irritation persists, get medical attention.
If on skin: Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists, or if rash develops, get medical attention.
If swallowed: If conscious, drink 1 or 2 glasses of water. Get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person.
If inhaled: Remove to fresh air. If irritation persists, get medical attention.
FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Does not flash.
FLAMMABLE LIMITS (LFL & UFL): Not established
EXTINGUISHING MEDIA: Considered non-combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO₂), foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: May include but are not limited to oxides of carbon, oxides of sulfur, and oxides of nitrogen.
SPECIAL FIRE FIGHTING PROCEDURES: Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Heating to dryness may cause the release of carbon dioxide gas. Cool containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Ventilate area. Contain spill, absorb liquid with clay or other absorbent material. Liquid is corrosive. Ensure that pumping equipment is of 316 stainless steel construction. Sweep up material and place in container for possible land application according to label use or for proper disposal. Check local, state and federal regulations for proper disposal.

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Open the container carefully. Contents may be under pressure. Eye protection and gloves are suggested when handling undiluted product. Use with adequate ventilation.
STORAGE: Store in original containers only. Keep containers tightly closed when not in use. Store out of direct sunlight in a cool, dry well-ventilated area, preferably in a locked storage area away from children, feed and food products, seed, and combustibles. Store at ambient temperatures. Polyethylene, Polypropylene, or 316L stainless steel are acceptable materials of construction for larger storage tanks. Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Not normally required. Use local or mechanical ventilation.
RESPIRATORY PROTECTION: Not normally required, if vapors are too strong wear a NIOSH approved respirator for anhydrous ammonia.
EYE PROTECTION: Chemical goggles or shielded safety glasses.
SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes plus socks. Wear rubber or chemical-resistant gloves.

OSHA PEL 8 hr TWA
None listed

ACGIH TLV-TWA
None listed

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Dark blue-green liquid with no odor
SPECIFIC GRAVITY (Water = 1): 1.53 g/ml
VAPOR PRESSURE: Not established
PERCENT VOLATILE (by volume): 19% w/w
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.

BULK DENSITY: 12.77 lbs/gal.
BOILING POINT: 212°F/100°C (Decomposes at 230°F)
EVAPORATION RATE: Not established

SOLUBILITY: Soluble
pH: 1 (10% solution)

10. STABILITY AND REACTIVITY

STABILITY: Stable
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.). Corrosive to 304 stainless steel. Slightly corrosive to 316 stainless steel.
INCOMPATIBILITY: Hypochlorites, sulfides, or alkaline materials. Incompatible with nylon and nylon beads.
HAZARDOUS DECOMPOSITION PRODUCTS: Heating to dryness may cause the release of carbon dioxide gas.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): 350 mg/kg
Eye Irritation (rabbit): Corrosive
Inhalation LC₅₀ (rat): Not established.
Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH

Acute Dermal LD₅₀ (rabbit): >2,000 mg/kg
Skin Irritation (rabbit): May be corrosive to skin
Skin Sensitization (guinea pig): not established.

12. ECOLOGICAL INFORMATION

Do not contaminate water supplies. May be harmful to fish, livestock, and wildlife.

13. DISPOSAL CONSIDERATIONS

Do not reuse container. Rinse container thoroughly, adding rinsate to mixing tank. Then offer for recycling at an ACRC site (go to <http://www.acrecycle.org/> for locations) or dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Avoid contaminating water by disposal of equipment wash waters or other product wastes.

14. TRANSPORT INFORMATION

DOT Shipping Description: CORROSIVE LIQUIDS, N.O.S. (MONOCARBAMIDE DIHYDROGENSULFATE), 8, UN 1760, III, ERG GUIDE 154
NOTE: DOT CORROSIVE TO ALUMINUM. 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)
 Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:	NFPA		HMIS
	3 Health	0 Least	3 Health
	0 Flammability	1 Slight	0 Flammability
	0 Instability	2 Moderate	0 Reactivity
		3 High	H PPE
		4 Severe	

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: Sulfuric Acid (CAS: 7664-93-9) 1000 lbs.

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

MSDS STATUS: Section 14 revised

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

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**AIHA (American Industrial Hygiene Association) Workplace Environmental Exposure Levels*

T: Measured as thoracic fraction of the aerosol.

Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.regulatory-info-lpi.com>

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