MATERIAL SAFETY DATA SHEET NORTRACE® RE-NFORCE™ K 5-0-20 13S

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL DAY OR NIGHT 1-800-561-8273 or CHEMTREC 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

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

24-Hour Emergency Phone: 1-800-561-8273
Medical Emergencies: 1-800-301-7976
Additional Emergency Phone (Canutec): 1-613-996-6666 (Collect)

DISTRIBUTED BY:

UNITED AGRI PRODUCTS CANADA, INC.
789 Donnybrook Drive • Dorchester, Ontario N0L 1G5

CHEMICAL IDENTITY: Urea, Urea Triazone, Potassium Thiosulfate blend
PRODUCT USE: Liquid Plant Nutrient for Application to Agronomic Crops
PCP REG. NO.: Not applicable
MSDS Number: NRK -08-LPI **MSDS Revisions:** New **Date of Issue:** 10/30/08 **Supersedes:** New

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 or clothing. Avoid breathing vapours. Use with adequate ventilation. Eye protection and gloves are suggested when handling undiluted product. Wash thoroughly after handling. This blended liquid fertilizer product is derived from Urea, Urea-Triazone Solution, and Potassium Thiosulfate. Contains ammonia. Contents may be under pressure. Use caution when opening..

This product is a clear, light green-brown liquid with slight amine odour. Primary routes of entry are Inhalation, eye contact and skin contact.

3. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredients:	Percentage by Weight:	CAS No.	TLV (Units)
Total Nitrogen (N)	5.00	Mixture	not established
Soluble Potash (K_2O)	20.00	Mixture	Not established
Combined Sulfur (S)	13.00	Mixture	Not established
Fertilizer salts and inert ingredients	62.00		

4. FIRST AID MEASURES

If in Eyes: Immediately flush eyes with plenty of water. Continue flushing for at least 15 minutes and call a physician if irritation persists.
If on Skin: Flush affected skin with water. Remove contaminated clothing. Launder clothing before reuse.
If Inhaled: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician if indicated.
If Swallowed: Drink plenty of water if conscious. Call a physician or poison control center immediately for advice on inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

FLASH POINT (°C/Test Method): Not applicable
FLAMMABLE LIMITS (LFL & UFL): Not applicable
EXTINGUISHING MEDIA: Considered non-combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: Heating to dryness may cause the release of ammonia and carbon dioxide.
SPECIAL FIRE FIGHTING PROCEDURES: Keep containers/storage vessels in the fire area cooled with water spray. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Intense heating may cause the release of ammonia vapours.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Small releases: Confine and absorb small release on sand, earth, or other inert absorbent. Use water spray to dilute to weak fertilizer solution and transfer to suitable containers for possible land application according to label use or for disposal. Large releases: Confine area to qualified personnel. Shut off release if safe to do so. Dike the spill area to prevent runoff into sewers, drains or surface waterways (potential aquatic toxicity). Recover as much material as possible. Treat remaining material as a small release. 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: Contains ammonia. Contents may be under pressure. Use caution when opening. Avoid contact with eyes. Use only in a well-ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated breathing of vapours. Avoid prolonged or repeated contact with skin.
STORAGE: Keep container tightly closed when not in use. A poorly sealed container may adversely affect product quality. Store in original containers, preferably in a locked storage area. Store in a cool, dry place at temperatures less than 105°F / 40.5^{O}C but greater than 0°F / -17.8^{O}C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use adequate exhaust ventilation to prevent inhalation of product vapours.
RESPIRATORY PROTECTION: None normally required. If conditions exist where mist may be generated, a NIOSH/MSHA approved mist respirator should be worn.
EYE PROTECTION: Chemical goggles and a full face shield. DO NOT WEAR CONTACT LENSES.
SKIN PROTECTION: Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.

OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Not established	not established

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, light green-brown liquid with slight amine odor
SOLUBILITY: Complete
SPECIFIC GRAVITY (Water = 1): 1.406 g/ml
BULK DENSITY: 1.406 kg/L
pH: 9.0-12.0
VAPOR PRESSURE: Not established
BOILING POINT: Not established
PERCENT VOLATILE (by volume): Not established
EVAPORATION RATE: Not established

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

STABILITY: Stable
CONDITIONS TO AVOID: Avoid excessive heat.
INCOMPATIBILITY: Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness. Avoid contact with acids or acid materials. This product may not be compatible with copper, zinc, or their alloys (bronze, brass, and galvanized metals. These materials of construction should not be used in piping, handling systems or storage containers for this product.

HAZARDOUS DECOMPOSITION PRODUCTS: Heating to dryness will cause the release of ammonia and oxides of carbon.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD_{50} (rat): Not established
Acute Dermal LD_{50} (rabbit): Not established
Eye Irritation (rabbit): May cause irritation
Skin Irritation (rabbit): May cause irritation
Inhalation LC_{50} (rat): Not established.
Skin Sensitization (guinea pig): Not established
Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Do not reuse container. Place in trash or offer for recycling. Incinerate contaminated solids in accordance with local, state and federal regulations.

14. TRANSPORT INFORMATION

TDG/DOT Shipping Description: NOT REGULATED BY DOT BY HIGHWAY.
U.S. Surface 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	
1	Health	0	Least	1	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: Not listed
SARA, Title III, Section 313: Not listed
RCRA Waste Code: Not listed
CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: New

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

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