

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

Medical Emergencies: 1-866-944-8565

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

PRODUCT NAME: SIGNATURE® FEATURE® A.C. 15-0-0

CHEMICAL NAME: Urea, Iron (Ferrous) Sulfate, Citric Acid

CHEMICAL FAMILY: Macronutrient-Micronutrient

EPA REG. NO.: not applicable

MSDS Number: 7102766-10-LPI

MSDS Revisions: Section 1

Date of Issue: 08/26/10

Supersedes: 07/31/06

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN - CAUTION - May cause mild eye and skin irritation. Avoid contact with skin, eyes, open cuts, or sores. In case of contact, flush with water. Get medical attention for eyes. This blended liquid fertilizer is a mixture of Urea, Iron (Ferrous) Sulfate, and Citric 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. Wash thoroughly after handling and using this product.

This product is a dark brown-colored liquid with slight odor. Primary routes of entry are Inhalation, eye contact and skin contact.

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)	15.00	Mixture	not established
Sulfur (S)	3.50	Mixture	not established
Iron (Fe)	6.00	Mixture	not established
Fertilizer salts and inert ingredients	75.50		

4. FIRST AID MEASURES

If in eyes: Flush eyes 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. Never induce vomiting or give anything by mouth to an unconscious person.

If inhaled: Remove to fresh air. If irritation persists, get medical attention.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Not applicable

FLAMMABLE LIMITS (LFL & UFL): Not applicable

EXTINGUISHING MEDIA: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.

HAZARDOUS COMBUSTION PRODUCTS: May include but are not limited to oxides of carbon, hydrogen chloride, hydrogen fluoride, oxides of nitrogen, ammonia, oxides of phosphorus, oxides of sulfur, hydrogen sulfide.

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: None known.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Avoid breathing mists. Absorb and sweep up spills immediately and transfer to suitable containers for possible land application according to label use or for 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: Avoid breathing fertilizer mists. Avoid prolonged or repeated skin contact. Avoid eye contact. Wash hands thoroughly after using this product and before eating, drinking, chewing gum, using tobacco or using the toilet.

STORAGE: 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 at ambient temperatures. Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Not normally required.
RESPIRATORY PROTECTION: Not normally required, if vapors or mists exceed acceptable levels, wear a MSHA/NIOSH approved respirator.
EYE PROTECTION: Chemical goggles or shielded safety glasses.
SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.

OSHA PEL 8 hr TWA

ACGIH TLV-TWA

No listings

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Dark brown-colored liquid with slight odor
SPECIFIC GRAVITY (Water = 1): 1.35 g/ml
VAPOR PRESSURE: Not established
PERCENT VOLATILE (by volume): Not applicable
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: 11.26 lbs/gal.**BOILING POINT:** Not established**EVAPORATION RATE:** Not established**SOLUBILITY:** Soluble
pH: 2.35

10. STABILITY AND REACTIVITY

STABILITY: Stable**CONDITIONS TO AVOID:** None known.**INCOMPATIBILITY:** None known.**HAZARDOUS DECOMPOSITION PRODUCTS:** Urea may decompose to release cyanuric acid, ammonia, HCN, NO.**HAZARDOUS POLYMERIZATION:** Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): >5000 mg/kg**Eye Irritation (rabbit):** Not established**Inhalation LC₅₀ (rat):** Not established.**Carcinogenic Potential:** None listed in OSHA, NTP, IARC or ACGIH**Acute Dermal LD₅₀ (rabbit):** >2000 mg/kg**Skin Irritation (rabbit):** Not established**Skin Sensitization (guinea pig):** Not established

12. ECOLOGICAL INFORMATION

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.

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.acrcycle.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. Avoid contaminating water by disposal of equipment wash waters or other product wastes.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT.**U.S. Surface Freight Classification:** FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI; LIQUID (NMFC 68140, SUB 5; CLASS 50)

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: 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 1 revised
PREPARED BY: Registrations and Regulatory Affairs **REVIEWED BY:** Environmental/ Regulatory Services

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