

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® STARPHITE® 2-0-16 SOIL AND FOLIAR NUTRIENT
CHEMICAL NAME: Inorganic/Organic Chemical Fertilizer Mixture
CHEMICAL FAMILY: N-K Mixed liquid blended fertilizer
EPA REG. NO.: not applicable
MSDS Number: 1000176931-13-LPI

MSDS Revisions: Sections 1, 4

Date of Issue: 10/08/13

Supersedes: 09/24/09

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 nutrient is derived from Potassium Hydroxide, Ammonium Phosphite, and Potassium Phosphite, containing Phosphorous 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 clear, colorless liquid with no 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) | 2.00 | Mixture | not established |
| Soluble Potash (K ₂ O) | 16.00 | Mixture | not established |
| Fertilizer salts and inert ingredients | 82.00 | | |

4. FIRST AID MEASURES

If in eyes: Hold eye open and rinse slowly and gently with water for 15 to 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.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

If swallowed: 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: **1-866-944-8565**.

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, or water spray.
HAZARDOUS COMBUSTION PRODUCTS: May include but are not limited to oxides of phosphorous, phosphine, oxides of carbon, and ammonia.
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: Use with adequate ventilation to prevent inhalation of spray mists.

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. Eyewash stations should be available near work areas.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves. Safety showers should be available near work areas.

OSHA PEL 8 hr TWA**ACGIH TLV-TWA**

No listings

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, colorless liquid with no odor**SPECIFIC GRAVITY (Water = 1):** 1.47 g/ml**VAPOR PRESSURE:** Not established**PERCENT VOLATILE (by volume):** Not applicable**BULK DENSITY:** 12.24 lbs/gal.**BOILING POINT:** >212°F / >100°C**EVAPORATION RATE:** Not established**SOLUBILITY:** Soluble**pH:** 5.0

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:** None known.**INCOMPATIBILITY:** None known.**HAZARDOUS DECOMPOSITION PRODUCTS:** May include but are not limited to oxides of phosphorous, phosphine, oxides of carbon, and ammonia.**HAZARDOUS POLYMERIZATION:** Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): Not established**Eye Irritation (rabbit):** Not established**Inhalation LC₅₀ (rat):** Not established.**Carcinogenic Potential:** None listed in OSHA, NTP, IARC or ACGIH**Acute Dermal LD₅₀ (rabbit):** Not established**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.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. 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**

| | | | |
|---|--------------|---|----------|
| 1 | Health | 0 | Least |
| 0 | Flammability | 1 | Slight |
| 0 | Instability | 2 | Moderate |
| | | 3 | High |
| | | 4 | Severe |

HMIS

| | |
|---|--------------|
| 1 | Health |
| 0 | Flammability |
| 0 | Reactivity |
| B | PPE |

SARA Hazard Notification/Reporting**SARA Title III Hazard Category:**

| | |
|-----------|----------|
| Immediate | <u>Y</u> |
| Delayed | <u>N</u> |

| | |
|----------|----------|
| Fire | <u>N</u> |
| Reactive | <u>N</u> |

| | |
|----------------------------|----------|
| Sudden Release of Pressure | <u>N</u> |
|----------------------------|----------|

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: Sections 1 and 4 revised**PREPARED BY:** Registrations and Regulatory Affairs**REVIEWED BY:** Environmental Health and Safety*®Signature and StarPhite are registered trademarks of Loveland Products, Inc.*

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