

MATERIAL SAFETY DATA SHEET

FOLIAR NUTRIENT 3 10-12-0 SOLUTION

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: FOLIAR NUTRIENT 3 10-12-0 SOLUTION

CHEMICAL NAME: Mixture of surfactants and nutrients

CHEMICAL FAMILY: Adjuvant - Nutrient

CA REG: 34704-50083

MSDS Number: 0050083-12-LPI

MSDS Revisions: New

Date of Issue: 09/21/12

Supersedes: New

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION. Harmful if swallowed, absorbed through skin or inhaled. Avoid breathing vapor or spray mist. Remove contaminated clothing before reuse. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

This product is an amber liquid with musty odor. Primary routes of entry are inhalation, ingestion 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) (from Urea)	10.00	Mixture 57-13-6	not listed 10 mg/m ³ *
Available Phosphate (P ₂ O ₅) (from Phosphoric Acid)	12.00	Mixture 7664-38-2	not listed 1 mg/m ³
Sulfur (S) (from Manganese Sulfate and Zinc Sulfate)	1.50	Mixture 7785-87-7; 7733-02-0	not listed
Manganese (Mn) (from Manganese Sulfate)	1.00	Mixture 7785-87-7	not listed
Zinc (Zn) (from Zinc Sulfate)	2.00	Mixture 7733-02-0	not listed
Other Ingredients	73.50		not listed

4. FIRST AID MEASURES

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes.

If in eyes: Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contacted lenses, if present, after the first 5 minutes, then continue rinsing eye.

If swallowed: Call a Poison Control Center 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 Center or doctor. Do not give anything 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.

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

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Not flammable.

FLAMMABLE LIMITS (LFL & UFL): Not applicable

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide (CO₂), foam, water spray or fog.

HAZARDOUS COMBUSTION PRODUCTS: May include but are not limited to oxides of carbon.

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: Evacuate citizens downwind from fire.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Avoid breathing vapors and contact with liquid. Collect as much liquid as possible in a clean container for reuse or absorb and sweep up immediately and transfer to suitable containers for disposal. Flush spill area with water after clean up. 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: Follow PPE recommendations in Section 8 and on product label. Use with adequate ventilation.
STORAGE: Store in a cool, dry place. Store in original container. Keep container tightly closed. Do not store reuse empty container. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Work in well-ventilated area, local exhaust may be required if working in confined space.
RESPIRATORY PROTECTION: Not normally required, if vapors exceed acceptable levels, wear a NIOSH/ MSHA approved respirator.
EYE PROTECTION: Safety glasses if necessary.
SKIN PROTECTION: Wear long-sleeved shirt and long pants, socks, shoes and chemical resistant-gloves.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Phosphoric Acid	1 mg/m ³	1 mg/m ³

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Amber liquid with musty odor	BULK DENSITY: 10.73 lbs/gal.	SOLUBILITY: Emulsifies
SPECIFIC GRAVITY (Water = 1): 1.2857 g/ml	BOILING POINT: Not established	pH: 1.70 (neat)
VAPOR PRESSURE: Not established	EVAPORATION RATE: Negligible	
PERCENT VOLATILE (by volume): Negligible		

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: Strong oxidizers and high temperatures.
INCOMPATIBILITY: None known.
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and other unknown hazardous materials may be formed in a fire situation.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): Not established	Acute Dermal LD₅₀ (rat): Not established
Eye Irritation (rabbit): Eye irritant	Skin Irritation (rabbit): Not established
Inhalation LC₅₀ (rat): Not established	Skin Sensitization (guinea pig): not established
Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH	

12. ECOLOGICAL INFORMATION

This product is not for aquatic use. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

13. DISPOSAL CONSIDERATIONS

Wastes may be disposed of on-site or at an approved waste disposal facility. Triple rinse (or equivalent) and add rinse water to spray tank. Offer container for recycling or dispose of container in a sanitary landfill, or by other procedures 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 www.acrcycle.org. Do not contaminate water, food or feed storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: CORROSIVE LIQUIDS, N.O.S. (PHOSPHORIC ACID), 8, UN 1760, III, ERG GUIDE 154.

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**

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>	Fire	<u>N</u>	Sudden Release of Pressure	<u>N</u>
	Delayed	<u>N</u>	Reactive	<u>N</u>		

Reportable Quantity (RQ) under U.S. CERCLA: Phosphoric Acid (CAS: 7664-38-2) 5000 lbs.; Zinc Sulfate (CAS: 7733-02-0) 1000 lbs.

SARA, Title III, Section 313: Zinc Compounds

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: New

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

Disclaimer and Limitation of Liability: This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS, INC. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.