

MATERIAL SAFETY DATA SHEET

IRON PHORTRESS 0-18.5-21

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: IRON PHORTRESS 0-18.5-21

CHEMICAL NAME: Inorganic/Organic Chemical Fertilizer Suspension

CHEMICAL FAMILY: Foliar and Soil Nutritional

MSDS Number: 7105567-12-LPI

MSDS Revisions: New

Date of Issue: 02/14/12

Supersedes: New

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 suspension is derived from Monopotassium Phosphate, Phosphorous Acid, Potassium Hydroxide, Iron EDTA, Manganese EDTA, and Zinc EDTA. 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 suspension with slight odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Total Phosphoric Acid (P ₂ O ₅)	33.00		
(Available Phosphoric Acid)	(18.50)		
(from Phosphorous Acid, Monopotassium Phosphate)		10294-56-1 7778-77-0	not listed not listed
Soluble Potash (K ₂ O)	21.00		
(from Potassium Hydroxide, Monopotassium Phosphate)		1310-58-3 7778-77-0	2mg/m ³ C not listed
Iron (Fe)	0.80		
(from Iron EDTA)		21393-59-9	not listed
Manganese (Mn)	0.18		
(from Manganese EDTA)		15375-84-5	not listed
Zinc (Zn)	0.18		
(from Zinc EDTA)		7779-88-6	not listed
Fertilizer salts and inert ingredients	44.84		

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) :	Does not flash.
FLAMMABLE LIMITS (LFL & UFL):	Ammonia gas: LFL: 16%; UFL: 25%.
EXTINGUISHING MEDIA:	Use media appropriate for surrounding fire.
HAZARDOUS COMBUSTION PRODUCTS:	Ammonia gas may evolve from product at high temperatures.
SPECIAL FIRE FIGHTING PROCEDURES:	Wear self-contained breathing apparatus and full protective gear. If heated to dryness, immediately ventilate the structure to prevent pressure build-up, which will increase the possibility of explosion.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Product may burn if all water has evaporated or boiled away.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Wear appropriate personal protective equipment (refer to Section 8). Pick up the material with absorbent material and place in a container for proper disposal in accordance with local, state and federal regulations.

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

7. HANDLING AND STORAGE

HANDLING:

Wear protective eyewear and chemical resistant gloves. Wash thoroughly with soap and water after handling.

STORAGE:

Store in a cool, well-ventilated area in frost-free conditions. Store in original container. Keep tightly closed. In handling system or storage, avoid the formation of solid material from evaporation or salting out. Do not 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:

Wear a NIOSH approved air-purifying respirator for pesticide handling if necessary.

EYE PROTECTION:

Chemical goggles or face-shield.

SKIN PROTECTION:

Wear long sleeved shirt, long pants, shoes and socks.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Potassium Hydroxide	not listed	2mg/m ³ C

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear suspension with slight odor.

SOLUBILITY: Soluble

SPECIFIC GRAVITY (Water = 1): 1.605 g/ml

BULK DENSITY: 13.40 lbs/gal.

pH: Not established

VAPOR PRESSURE: Not established

BOILING POINT: 226 – 230°F (107.8 – 110°C)

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 under confinement.

INCOMPATIBILITY: Avoid mixing with oxidizing materials. Do not mix with combustible materials, wood chips, organic materials, flammable liquids, chlorides, perchlorates, or sulfur. Avoid contact with alkalis. Incompatible with aluminum + formamide; dimethylformamide

HAZARDOUS DECOMPOSITION PRODUCTS: May release toxic fumes of ammonia, oxides of carbon, oxides of nitrogen, hydrogen chloride, ammonium chloride, and chlorine in a high temperature or fire situation.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): >5000 mg/kg

Acute Dermal LD₅₀ (rabbit): >2000 mg/kg

Eye Irritation (rabbit): May irritate eyes

Skin Irritation (rabbit): May irritate skin

Inhalation LC₅₀ (rat): Not established.

Skin Sensitization: Not a sensitizer.

Carcinogenic Potential: Not listed by OSHA, NTP, IARC, and ACGIH as a known human carcinogen

12. ECOLOGICAL INFORMATION

Do not contaminate water supplies.

13. DISPOSAL CONSIDERATIONS

Do not reuse product containers. Triple rinse (or equivalent), and add rinsate to spray 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. Do not contaminate water sources by runoff from cleaning of equipment, disposal of equipment wash waters or spray waste.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT.

Freight Classification: FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI; LIQUID (NMFC 68140, SUB 6; CLASS 70)

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:		NFPA		HMIS		
	1	Health	0	Least	1	Health
	0	Flammability	1	Slight	0	Flammability
	1	Instability	2	Moderate	1	Reactivity
			3	High	B	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: New

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/Regulatory Services

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