

**MATERIAL SAFETY DATA SHEET**

**6 Iron**

**SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

<b>1.1 Product Name:</b>	<b>6 Iron, 6% Iron, .05% Manganese, 12-0-0, 3.3% Sulfur</b>		
<b>Common Name:</b>	Micronutrient Fertilizer		
<b>Chemical Description:</b>	Fertilizer solution derived from urea, ferrous sulfate, manganese		
<b>1.2 Manufactured By:</b>	Plant Food Company, Inc. 38 Hightstown-Cranbury Station Road Cranbury, NJ 08512	<b>Emergency Telephone Number</b> <b>Telephone Number for Information</b> <b>Date Prepared</b>	609-448-0935 609-448-0935 11/1/2011

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

*Hazardous Components (Specific Chemical)*

Identity: Common Name	(CAS #)	OSHA PEL	ACGIH TLV	Other Limits Recommended
Urea	57-13-6	N/A	N/A	N/A
Ferrous Sulfate Heptahydrate	7782-63-0	N/A	N/A	N/A
Manganese Sulfate	0	N/A	N/A	N/A

**SECTION 3: HAZARDS IDENTIFICATION**

Green liquid with no odor. May cause eye and skin irritation. May be harmful if ingested. Carbon monoxide fumes may form from burning. Not D.O.T. regulated"  
 NEPA: Health:1 Reactivity:0 Flammability:0 Environment:0 (0=Insignificant=1 Slight 2=Moderate 3=High 4=Extreme)

**EMERGENCY OVERVIEW**

This material is not a 'health hazard' or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration Hazard Communication Standard, 20 CFR 1910.1200

**3.1 POTENTIAL HEALTH EFFECTS**  
**EYE:** Contact with the eyes by product mist or solution may cause irritation or a burning sensation.  
**SKIN CONTACT:** Prolonged or repeated contact with product mist or solution may cause skin irritation.  
**SKIN ABSORPTION:** Absorption is unlikely to occur.  
**INGESTION:** Ingestion of product solution may cause irritation o the gastrointestinal tract to include nausea, vomiting and diarrhea.  
**INHALATION:** Inhalation of product mist may cause irritation of the nose, throat and respiratory tract.  
**CHRONIC EFFECTS/CARCINOGENICITY:** Not listed as a carcinogen by NTP, IARC or OSHA.

**SECTION 4: FIRST AID MEASURES**

**4.1 EYES:** Flush immediately with plenty of water for at least 15 minutes while holding eyelids apart to ensure complete irrigation of all eye and lid tissue. If irritation occurs, seek medical attention.  
**4.2 SKIN:** Wash with plenty of soap and water. Remove contaminated clothing and shoes under a safety shower. Get medical attention if irritation persists.  
**4.3 INGESTION:** If conscious and alert, administer water or milk to dilute, then induce vomiting. Call Poison Control Center or physician immediately. Do not give anything by mouth to an unconscious person.  
**4.4 INHALATION:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth and get medical attention. If heart has stopped beating, external heart massage should be applied. Obtain medical attention.

**SECTION 5: FIREFIGHTING MEASURES**

**5.1 FLAMMABLE PROPERTIES**  
**FLASHPOINT:** Not flammable      **METHOD USED:** Closed Cup/NONCOMBUSTIBLE  
**5.2 FLAMMABLE LIMITS:** LFL: NA UFL: NA  
**5.3 EXTINGUISHING MEDIA:** Foam, carbon dioxide, dry chemical, or water fog.  
**5.4 FIRE & EXPLOSIVE HAZARDS:** Not Combustible  
**5.5 FIRE FIGHTING EQUIPMENT:** As in any fire, wear self-contained breathing apparatus, pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Avoid smoke inhalation. Contain any liquid runoff.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 SMALL RELEASES:** Confine and absorb small releases on sand earth or other inert absorbent. Use water spray to dilute to weaken fertilizer solution.  
**6.2 LARGE RELEASES:** Shut off release if safe to do so. Dike spill area to prevent runoff into sewers, rains or surface waterways. Recover as much of the solution as possible. Treat remaining material as a small release (above).

**SECTION 7: HANDLING AND STORAGE**

**7.1 HANDLING:** Avoid contact with eyes. Use only in a well ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated breathing of vapors. Avoid prolonged or repeated contact with the skin.  
**7.2 STORAGE:** Store in original container only in a cool, well-ventilated, dry place at temperatures between 40° and 95°F. Do not store near food or feeds.  
**7.3 Transfer Equipment:** Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.

**SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION**

**8.1 RESPIRATORY PROTECTION:** Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/moist respirator (such as 3M#8710).  
**Ventilation:** Where air contaminants can exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminate.  
**8.2 SKIN PROTECTION:** Neoprene rubber groves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.  
**8.3 EYE PROTECTION:** Chemical goggles and a full face shield. **DO NOT WEAR CONTACT LENSES.**  
**8.4 EXPOSURE GUIDELINES:**

	TWA	STEL
OSHA	N/A	N/A
ACGIH	N/A	N/A

**8.5 ENGINEERING CONTROLS:** Use adequate exhaust ventilation to prevent inhalation of product vapors.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

9.1 APPEARANCE	Green liquid
9.2 ODOR:	None
9.3 VAPOR PRESSURE:	None
9.4 VAPOR DENSITY:	Not available
9.5 SOLUBILITY IN WATER:	Miscible
9.6 SPECIFIC GRAVITY (H <sub>2</sub> O = 1):	1.41
9.7 MELTING POINT:	Not determined
9.8 pH:	1.5
9.9 VOLATILE:	Not available
9.10 COLOR:	Green liquid
9.11 WEIGHT PER GALLON:	10.4 lbs (4.72 kg)
9.12 STORAGE LIFE AT 70° F:	> 1 Year
9.13 PH-21C:	3.0
9.15 VISCOSITY:	1-10 CPS @ 21°C
9.16 FREEZING POINT:	< 32° F
9.17 EVAPORATION RATE:	Not determined
9.18 BOILING POINT:	210°F

**SECTION 10: STABILITY AND REACTIVITY**

- 10.1 STABILITY: Stable
- 10.2 HAZARDOUS POLYMERIZATION: Will not occur.
- 10.3 HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO<sub>2</sub>, NH<sub>3</sub> Aldehydes (including formaldehyde), particulate matter and other organic compounds.
- 10.4 INCOMPATIBILITY: Not Available

**SECTION 11: TOXICOLOGICAL INFORMATION**

- 11.1 ORAL: May cause stomach cramps and/or nausea.
- 11.2 DERMAL: May cause slight irritation, especially from prolonged exposure. May cause redness.
- 11.3 INHALATION: None expected but inhalation may cause mild irritation of nasal mucous membranes.
- 11.4 CHRONIC/CARCINOGENICITY: Data not available
- 11.5 TERATOLOGY: Data not available
- 11.6 REPRODUCTION: Data not available
- 11.7 MUTAGENICITY: Data not available
- 11.8 EYES: May cause temporary eye irritation.

**SECTION 12: ECOLOGICAL INFORMATION**

- 12.1 Alga/Lemna Growth Inhibition: Not known.
- 12.2 Toxicity to Fish and Invertebrates: Not known
- 12.3 Toxicity to Plants: Not known
- 12.4 Toxicity in Birds: Not known

**SECTION 13: DISPOSAL CONSIDERATIONS**

Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment washwaters. Dispose of waste effluents in accordance with state and local waste disposal regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal.

**SECTION 14: TRANSPORTATION INFORMATION**

D.O.T. Not D.O.T. Regulated  
 Other Shipping Description: Fertilizing Compounds (Manufactured), Liquid. NMFC Item 6810 Sub 6, LTL Class 70

**SECTION 15: REGULATORY INFORMATION**

- 15.1 CERCLA: None
- 15.2 SARA TITLE III, Section 313 Toxic Chemicals: None

**SECTION 16: OTHER INFORMATION**

Not harmed by freezing, but thaw frozen fertilizer slowly and stir before using. Store in a cool place. Rotate stock in storage to use oldest first. Refer to product specifications.

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