

March 2011

**PLANT MARVEL LABORATORIES, INC.**  
**CHICAGO HEIGHTS, ILLINOIS**  
**MATERIAL SAFETY DATA SHEET**

**PRODUCT: NUTRICULTURE® 13% Iron Chelate**

**1. PRODUCT INFORMATION**

**Manufacturer:** Plant Marvel Laboratories, Inc.  
371 E. 16th Street  
Chicago Heights, IL 60411

**Telephone Numbers:**  
**Product Information:** 708-757-7500  
**Transportation Emergencies:** 800-535-5053  
**Medical Emergencies:** 800-752-7869

**Formula:** Iron (Fe13%)  
**Chemical Family:** Aminocarboxylic Acid Salt  
**NFPA Ratings:** Health: 2, Fire: 1, Reactivity: 0  
**Hazard Scale:** 0=minimal, 1=slight, 2=moderate, 3=serious, 4=severe

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

| Ingredients:                 | CAS#:      | ACGIH/PPM |      | OSHA/PPM |          |
|------------------------------|------------|-----------|------|----------|----------|
|                              |            | TWA       | STEL | PEL      | % by Wt. |
| Ferric Sodium Salt EDTA 3H2O | 15708-41-5 | None      | None | None     | 99.5%    |
| Trisodium Nitrilotriacetate  | 5064-31-3  | None      | None | None     | 0.2%     |
| Water                        | 7732-18-5  | None      | None | None     | 0.3%     |

**3. HEALTH HAZARD INFORMATION**

**Potential health hazards:**

Eye Exposure – May cause minor eye irritation.

Skin Absorption – May cause minor skin irritation.

Ingestion – Possible nausea, vomiting, diarrhea.

Inhalation – Prolonged or excessive inhalation may cause respiratory tract irritation.

**Summary of Risks:**

Not considered a hazardous product. Nitrilotriacetic acid (NTA) and/or its salts are classified by NTP and IARC as suspect carcinogens (Class 2R) based on findings of urinary tract tumors in rats and mice in chronic feeding studies. Based on the doses and exposure conditions required to cause tumors in animals and the low concentration of NTA or its salts present, it is not believed that exposure to this product under normal working conditions poses a human cancer risk.

**4. FIRST AID PROCEDURES**

**Eyes:** Immediately flush with water for 15 minutes holding eyelids open. DO NOT let victim rub eyes. Get medical attention if irritation persists.

**Ingestion:** Never give anything by mouth to an unconscious or convulsing person. Have conscious person drink several glasses of water. Do not induce vomiting. Get medical attention.

**Skin:** Remove contaminated clothing. Flush affected area with water for 15 minutes. Wash with soap and water. Get immediate medical attention if irritation occurs.

**Inhalation:** Remove person to fresh air. If not breathing, give artificial respiration. Get medical attention.

## 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** Noncombustible – use extinguishing media suitable for surrounding materials.

**Hazardous Combustion Products:** Burning may produce oxides of nitrogen oxide.

**Explosion Hazards:** Does not contribute any unusual hazards.

**Fire Fighting Procedures:** Evacuate area. Firefighters should wear full-face, self contained breathing apparatus and impervious protective clothing.

**Flash Point:** N/A

## 6. ACCIDENTAL RELEASE MEASURES

Consult with environmental regulatory agencies for acceptable procedures of disposal. Stop source of spill. Sweep up spilled solid material, being careful not to create dust. Return sweeping to stock or, if contaminated, place into a chemical waste container for disposal. Wash away residue with water.

## 7. HANDLING AND STORAGE

**KEEP OUT OF REACH OF CHILDREN**

**WARNING!** Sensitizer – may cause allergic skin reaction. **NOTICE!** Contains nitrilotriacetic acid or its salts as a byproduct, which has been found to cause cancer in test animals. In accordance with good industrial practice, handle with due care and avoid unnecessary personal contact. Store product in original packaging in dry, well ventilated place away from sunlight and substances containing a fire hazard. Product is hygroscopic.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

**Eyes and Face:** Use chemical safety glasses with side shields or splash proof goggles and face shield to prevent eye/face contact. Emergency eye wash must be readily accessible to work area.

**Skin:** Skin contact should be prevented through the use of suitable protective clothing, selected with regard for use conditions and exposure potential. Consideration must be given both to durability as well as permeation resistance.

**Respiratory:** If airborne dust levels are high or irritation occurs, use NIOSH/MSHA approved respirator for dust, mist, and fumes to reduce exposures to acceptable levels.

**Other Use Precautions:** Avoid prolonged or repeated breathing of dust and contact with skin. Remove contaminated clothing; launder before reuse. Cleanse skin thoroughly after contact, before meals and end of work period.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Solid

**Appearance:** Odorless powder

**Color:** Yellow, Green

**Solubility in Water:** 9 gr/100ml (at 20 degrees C)

**Melting Point:** 80 degrees C

**Other:** pH: 4.5 (1% in water)

## 10. STABILITY AND REACTIVITY

**Stable:** Yes

**Hazardous Polymerization:** No

**Conditions to Avoid:** None known

**Hazardous Decomposition Products:** Decomposition products: Nitrogen oxides

**Incompatible Materials:** None known

**Polymerization Conditions to Avoid:** Prolonged storage at elevated temperatures should be avoided.

Hazardous polymerization is not expected to occur.

## 11. TOXICOLOGICAL INFORMATION

**Eye Effects:** It is expected that this product would be minimally irritating to eyes based on tests with similar products.

**Skin Effects:** Chronic dermal exposure effects for this product are not known.

**Dermal Toxicity:** Dermal toxicity data is not available. However, it is not considered to be irritating based on tests with chemically similar products.

**Inhalation Effects:** inhalation toxicity data is not available. Chronic inhalation exposure effects are not known.

**Carcinogenicity/Mutagenicity:** NTA and its salts were determined to be "possibly carcinogenic to humans" (Group 2B), by the International Agency for Research on Cancer (IARC) and a compound which "may reasonably be anticipated to be a carcinogen" by the NTP.

**Reproductive Effects:** EDTA and its sodium salts have been reported to cause birth defects in lab animals only at exaggerated doses that were toxic to the mother. Effects associated with zinc deficiency due to chelation. Exposures have no effect on mother and should have no effect on the fetus.

## 12. ECOLOGICAL INFORMATION

**Biodegradability:** Not readily biodegradable.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods:** In unused condition, this product is not considered to be an RCRA defined hazardous waste by characteristics/listings. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristic/listing. Dispose in accordance with local, state, and federal regulations. Chemical additions, processing or otherwise altering this may make the waste management information presented incomplete, inaccurate or otherwise inappropriate.

## 14. TRANSPORT INFORMATION

**Proper Shipping Name:** Iron EDTA Chelate