

# MATERIAL SAFETY DATA SHEET

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC- DAY

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

OR NIGHT 1-800-424-9300

### FORMULATED FOR:

Independent Turf Partners, Inc.  
383 NE Baker Road  
Stuart, FL 34994

24- Hour Emergency Phone: 1-800-424-9300  
Medical Emergencies: 1-800-301-7976  
U.S. Coast Guard National Response Center: 1-800-424-8802

**PRODUCT NAME:** Terra Bonne Micro-Man LQ LIQUID TURF & ORNAMENTAL FERTILIZER  
**CHEMICAL NAME:** Inorganic/Organic Chemical Fertilizer Mixture  
**CHEMICAL FAMILY:** Micronutrient mixed liquid blended fertilizer

**Date of Issue:** 12/2/10

## 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, and sores. In case of contact, flush with water. Get medical attention for eyes. This blended liquid fertilizer is a mixture of ferrous sulfate, manganese sulfate, magnesium sulfate, zinc sulfate, boric acid, and citric acid. Nausea and vomiting could be expected upon large dose ingestion. The acute ingestive effects are described as nausea, chills, and diarrhea. Eye and 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 deep green color with a slight sulfur odor. Primary routes of entry are inhalation, eye contact and skin contact.

## 3. COMPOSITION, INFORMATION ON INGREDIENTS

MIXED LIQUID BLENDED FERTILIZERS – No hazardous ingredient exceeds 1% of mixture.

<u>Chemical Ingredients:</u>	<u>Percentage of Weight:</u>	<u>CAS No.</u>
Iron	3.0	7788-63-0
Magnesium	0.25	7487-88-9
Manganese	1.0	7785-87-7
Zinc	0.8	7733-02-0
Boron	0.022	10043-35-3

## 4. FIRST AID MEASURES

**If in eyes:** Flush eyes with clean running water for at least 15 minutes. If irritation persists, get medical attention.  
**If on skin:** Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists, or if rash develops, get medical attention.  
**If swallowed:** If conscious, drink 1 or 2 glasses of water. Get medical attention. Never induce vomiting or give anything by mouth to an unconscious person.  
**If inhaled:** Remove to fresh air. If irritation persists, get medical attention.

## 5. FIRE FIGHTING MEASURES

<b>FLASH POINT (°F/Test Method):</b>	Not applicable
<b>FLAMMABLE LIMITS (LFL &amp; UFL):</b>	Not applicable
<b>EXTINGUISHING MEDIA:</b>	Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	May include but not limited to oxides of carbon, hydrogen chloride, hydrogen fluoride, oxides of nitrogen, ammonia, oxides of carbon, hydrogen chloride, hydrogen fluoride, oxides of nitrogen, ammonia, oxides of phosphorus, oxides of sulfur, hydrogen sulfide.
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	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 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

<b>HANDLING:</b>	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.
<b>STORAGE:</b>	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, food products, and seed. Store at ambient temperatures. Do not contaminate water, food, or feed or disposal.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>ENGINEERING CONTROLS:</b>	Not normally required.
<b>RESPIRATORY PROTECTION:</b>	Not normally required.
<b>EYE PROTECTION:</b>	Chemical goggles or shielded safety glasses.
<b>SKIN PROTECTION:</b>	Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.
	<b>OSHA PEL 8 hr TWA</b> <b>ACGIH TLV-TWA</b>
	No listings

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE AND ODOR:</b>	Dark green liquid with minimal odor
<b>SOLUBILITY:</b>	Appreciable
<b>pH:</b>	2.5-3.0
<b>SPECIFIC GRAVITY (Water = 1):</b>	1.13
<b>VAPOR PRESSURE:</b>	Not established
<b>PERCENT VOLATILE (by volume):</b>	Not applicable
<b>BULK DENSITY:</b>	9.4 lbs / gallon
<b>BOILING POINT:</b>	Not established
<b>EVAPORATION DATE:</b>	Not established
<b>Note:</b>	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

<b>STABILITY:</b>	Stable
<b>INCOMPATIBILITY:</b>	Not known
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	SO <sub>2</sub> may evolve at high temperatures
<b>HAZARDOUS POLYMERIZATION:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute Oral LD<sub>50</sub>(rat):** >5000 mg/kg

**Acute Dermal LD<sub>50</sub>(rabbit):** >2000 mg/kg

**Eye Irritation (rabbit):** Not established

**Skin Irritation (rabbit):** Not established

**Inhalation LC<sub>50</sub>(rat):** Not established

**Skin Sensitization (guinea pig):** Not established

**Carcinogenic Potential:** None listed in OSHA, NTP, IARC, or ACGIH

**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 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		HMIS
1 Health	0 Least	1 Health
0 Flammability	1 Slight	0 Flammability
0 Instability	2 Moderate	0 Reactivity
	3 High	H 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 State of California to cause cancer or birth defects or other reproductive harm.

**16. OTHER**

**PREPARED BY:** Registrations and Regulatory Affairs **REVIEWED BY:** Environmental/ Regulatory Services

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