



# TILL-IT®

## 5% MANGANESE EDTA

### 4-0-4



WILBUR-ELLIS®  
Ideas to Grow With™

### GUARANTEED ANALYSIS

|  |       |
|--|-------|
| Total Nitrogen (N).....                | 4.00% |
| 2.00% Ammoniacal Nitrogen              |       |
| 2.00% Water Soluble Nitrogen           |       |
| Soluble Potash (K <sub>2</sub> O)..... | 4.00% |
| Manganese (Mn) .....                   | 5.00% |
| 5.00% Chelated Manganese               |       |

DERIVED FROM: Ammonium Hydroxide, Potassium Hydroxide and Manganese EDTA.

**DO NOT STORE BELOW 25 DEGREES FAHRENHEIT**

## KEEP OUT OF REACH OF CHILDREN PRECAUTION

Do not ingest. Avoid contact with skin, eyes or clothing.  
Avoid breathing dust, vapor or mist.

### FIRST AID

In all cases, call a poison control center or doctor for further treatment advice.

**IF SWALLOWED**, call a poison control center or doctor immediately. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person. **IF ON SKIN**, take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. **IF INHALED**, move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration. **IF IN EYES**, hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.

**For chemical spills, leaks, fire or exposure, call CHEMTREC: (800) 424-9300.**

### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

Store in a safe manner. **TILL-IT® 5% MANGANESE EDTA** may be stored in mild steel (short-term), stainless steel, plastic, fiberglass, polyolefin, polyethylene, or tanks treated with rubber, glass or epoxy. Dispose of unused product and empty containers in accordance with federal, state and local regulations.

### GENERAL INFORMATION

TILL-IT® is a line of high quality, specialty fertilizers intended primarily for soil applications. **TILL-IT 5% MANGANESE EDTA** is formulated to prevent or correct manganese deficiencies in a wide range of agronomic and ornamental plants.

**TILL-IT 5% MANGANESE EDTA** is 100% fully chelated and resists soil tie up and will not precipitate with phosphate fertilizers unlike unprotected simple inorganic manganese sources. **TILL-IT 5% MANGANESE EDTA** is 100% plant available and will move in the soil solution. **TILL-IT 5% MANGANESE EDTA** may be used at much lower rates than other non-chelated or weakly chelated micronutrient sources and provide superior results. TILL-IT EDTA products may be applied as foliar sprays, soil injections, water runs or injections into closed irrigation systems. TILL-IT EDTA products will not foul low volume irrigation systems or precipitate with co-applied plant nutrients. **TILL-IT 5% MANGANESE EDTA** contains EDTA in excess of the amount required for metal chelation to enhance blend and tank mix compatibility and stability.

**TILL-IT 5% MANGANESE EDTA** should be used as a part of a comprehensive Total Nutrition System® for optimizing plant growth, development, yield and quality.

#### FUNCTIONS OF MANGANESE IN PLANTS

Manganese assists the plant with nitrogen and carbohydrate metabolism, is involved in the activation of several enzyme systems, assists iron in chlorophyll formation and is important for electron transport during photosynthesis. Manganese deficiencies may be caused by or exacerbated by high soil pH, calcareous soils and cool, wet conditions.

### DIRECTIONS FOR USE

**SOIL APPLICATIONS:** **TILL-IT 5% MANGANESE EDTA** may be applied with pop-up or starter fertilizers, side-dress or water-run fertilizers, broadcast or banded. **TILL-IT 5% MANGANESE EDTA** will not foul low volume irrigation systems or plug emitters. **TILL-IT 5% MANGANESE EDTA** may be applied with other TILL-IT products or as a stand-alone treatment. Repeated reduced rate applications may be more efficient than single higher rate applications.

Soil-applied **TILL-IT 5% MANGANESE EDTA** is recommended at 1-4 quarts per acre per application as needed for all crops.

**FERTILIZER IMPREGNATION:** **TILL-IT 5% MANGANESE EDTA** may be used to coat dry fertilizers to maximize distribution uniformity of the desired micronutrients. Rates as high as 1.5 gallons per ton may be used depending on the dry fertilizer to be coated, the blender and prevailing environmental conditions.

**FOLIAR APPLICATIONS:** Foliar application of **TILL-IT 5% MANGANESE EDTA** is a means of obtaining a quick response to needed manganese. Foliar applications of **TILL-IT 5% MANGANESE EDTA** may be particularly beneficial during periods of peak nutrient demand, to crops growing on soils having poor nutrient availability or to crops suffering from a weakened root system.

Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.aapfco.org/metals.htm>

Avoid foliar nutrient applications to crops suffering from moisture, salinity or heat stress. Applications of micronutrients to fruit within 30 days of harvest may result in staining of rind or fruit.

When foliar applying through a conventional ground sprayer a minimum of 20 gallons of water per 1 quart of **TILL-IT 5% MANGANESE EDTA** is recommended. Higher concentrations may result in burning. When foliar applying in low volume spray equipment, a maximum of 1 quart per acre is recommended. Burning may occur in low volume sprays. When applying multiple TILL-IT products in single tank mix, do not exceed 3 quarts per acre for all TILL-IT products. For best results spray when the crop is actively growing after irrigation or rainfall and include a high quality CPDA approved adjuvant such as R-11® or RAINIER-EA™ to maximize cover and uptake. Foliar applications to certain crops or varieties may result in spotting of foliage or fruit. If unsure of crop safety for the crop in question, then spraying a small area first for observation is advised.

#### SPECIFIC CROP RECOMMENDATIONS FOR FOLIAR APPLICATIONS:

**Deciduous Fruit and Nuts:** 1-2 quarts per acre per application as needed any time during the growing season.

**Citrus:** 1-3 quarts per acre as needed. Reserve the 3-quart rate for full size, mature trees.

**Wine and Table Grapes:** Limit rates to 1 quart per acre per application as needed any time during the growing season.

**Field and Row Crops:** 0.5-1 quart per acre per application as needed any time during the growing season.

**Vegetable Crops:** 0.5-1 quart per acre per application as needed. Reserve the 1-quart rate for more developed plants.

**Turf and Ornamentals:** 0.5-1 quart per acre (0.36-0.74 ounce per 1,000 sq. ft.).

**All Other Crops:** 0.5-1 quart per acre per application as needed any time during the growing season.

### COMPATIBILITY

**TILL-IT 5% MANGANESE EDTA** is compatible with most slightly acidic to alkaline fertilizers. **TILL-IT 5% MANGANESE EDTA** will lose chelate activity if combined with strongly acidic fertilizers such as phosphoric acid, sulfuric acid or urea sulfuric acid. **TILL-IT 5% MANGANESE EDTA** is compatible with most plant protection products. Always jar test new combinations for compatibility before field mixing.

#### Conditions of Sale and Limitation of Warranty and Liability:

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using the product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of the product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of many different factors including, without limitation, manner of use or application, weather, combination with other products, or crop conditions. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Manufacturer and Seller harmless from any claims relating to such factors.

**Seller warrants that this product conforms to the chemical description on the label. EXCEPT FOR THIS WARRANTY, THE PRODUCT IS FURNISHED "AS-IS," AND NEITHER SELLER NOR MANUFACTURER MAKES ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE SELECTION, PURCHASE OR USE OF THIS PRODUCT; SELLER AND MANUFACTURER SPECIFICALLY DISCLAIM ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Buyer and User accept all risks arising from any use of this product, including without limitation uses contrary to label instructions, under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or Manufacturer.**

To the extent permitted by law, neither Manufacturer nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF THE BUYER OR USER, AND THE EXCLUSIVE LIABILITY OF MANUFACTURER AND SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT, OR, AT THE ELECTION OF MANUFACTURER OR SELLER, THE REPLACEMENT OF THE PRODUCT.

These Conditions of Sale and Limitation of Warranty and Liability shall be interpreted in accordance with the laws of the State of California, excluding its conflicts of laws rules, and may not be amended by any oral or written agreement.

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K-092216

Manufactured by: **WILBUR-ELLIS COMPANY LLC**  
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**NET CONTENTS: 2.5 GALLONS (9.46 Liters)**  
WEIGHT PER GALLON: 10.3 POUNDS at 68°F