



**GUARANTEED ANALYSIS** 

 Total Nitrogen (N)
 4.00%

 4.00% Ammoniacal Nitrogen
 4.00%

 Soluble Potash (K2O)
 4.00%

 Manganese (Mn)
 5.00%

 5.00% Chelated Manganese
 5.00%

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

# 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. Store in original container only and keep tightly sealed when not in use. Dispose of unused product and empty containers in accordance with federal, state and local regulations.

## **GENERAL INFORMATION**

VERSATILE® MANGANESE is a liquid micronutrient product containing 5.0% manganese with nitrogen and potassium, formulated with both EDTA and IDS chelates for maximum stability and effectiveness. VERSATILE MANGANESE is effective and safe for both soil and foliar applications, is stable across a wide range of soil or spray tank solution pH and will not degrade in the presence of buffer adjuvants. VERSATILE MANGANESE is ortho and polyphosphate compatible and offers exceptional tank mix compatibility with other nutrient sources and plant protection products.

**VERSATILE MANGANESE** should be used as a comprehensive Total Nutrition System® for maximizing plant growth, 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

**VERSATILE MANGANESE** may be applied as foliar treatments, soil injection, surface dribble or spray, or metered into irrigation systems.

FOLIAR APPLICATIONS: Foliar application of VERSATILE MANGANESE is a means of obtaining a quick response to needed micronutrients. Foliar applications of VERSATILE MANGANESE 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. 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 **VERSATILE MANGANESE** 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 VERSATILE products in a single tank mix, do not exceed 3 quarts per acre for all VERSATILE products in essential spray when the crop is actively growing after irrigation or rainfall and include a high quality CPDA approved adjuvant, such as RAINIER-EA<sup>™</sup> or R-11<sup>®</sup>, 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.

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

**DECIDUOUS FRUIT AND NUTS:** 1-2 quarts per acre per application as needed any time during the growing season.

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 guart 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.

SOIL APPLICATIONS: VERSATILE MANGANESE may applied with pop-up or starter fertilizers, side-dress or water run fertilizers, broadcast or banded. VERSATILE MANGANESE will not foul low volume irrigation systems or plug emitters. VERSATILE MANGANESE may be applied with other VERSATILE products or as a stand-alone treatment. Repeated applications at reduced rates may be more efficient than single higher rate applications. Soil-applied VERSATILE MANGANESE is recommended at 1-4 quarts per acre per application for all crops.

**FERTILIZER IMPREGNATION: VERSATILE MANGANESE** 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, blender and prevailing environmental conditions.

#### **COMPATIBILITY**

VERSATILE MANGANESE is compatible with most slightly acidic to alkaline fertilizers. VERSATILE MANGANESE will lose chelate activity if combined with strongly acidic fertilizers such as phosphoric acid, sulfuric acid or urea sulfuric acid. VERSATILE MANGANESE 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.

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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 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.

Under conditions not reasonably toreseeable to (or beyond the control of) seller of 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.

WILBUR-ELLIS logo, Ideas to Grow With, R-11, Total Nutrition System, and Versatile are registered trademarks, and RAINIER-EA and Versatile logo are trademarks of Wilbur-Ellis Company LLC.

K-090616

Manufactured by: **WILBUR-ELLIS COMPANY LLC** 7 E. Washington Ave., Yakima, WA 98903

LOT#

# **NET CONTENTS: 2.5 GALLONS (9.46 Liters)**