

# Mn

# ChelStar

## 13% Manganese Chelate



### Fully Chelated Micronutrient for Plant Nutrition

CHM 15 258 032220

#### ChelStar 13% Manganese Chelate 6-0-0

##### GUARANTEED ANALYSIS

Total Nitrogen (N).....	6.0%
6.0% Water-Soluble Nitrogen	
Manganese (Mn).....	13.0%
13.0% Chelated Manganese	

Derived from manganese disodium ethylenediaminetetraacetate (MnNa<sub>2</sub>EDTA).

**Precautionary Statements:** This product is not classified as a hazardous substance based on currently available data. However, observe good industrial hygiene practices. Wash hands after handling.

**STORAGE AND DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Keep out of reach of children. Store away from incompatible materials. Dispose of contents/container in accordance with local authority regulations.

**GENERAL INFORMATION:** *ChelStar 13% Manganese Chelate* is a fully chelated, water-soluble, powdered form of manganese EDTA useful for prevention and correction of manganese deficiency in crops. Soil application is the preferred application method to prevent manganese deficiency. Foliar application, however, will provide correction when a soil application is impractical.

**SOIL APPLICATION DIRECTIONS:** *ChelStar 13% Manganese Chelate* may be used on all types of soils. It should be dissolved in water or fluid fertilizer, or dry blended with water-soluble fertilizers for optimum delivery and coverage. For trees or individual plants, *ChelStar 13% Manganese Chelate* may be blended with an inert (such as soil or sand) or sprinkled directly on the soil uniformly under the plant's drip line then watered in. Soil applications may also be made by dissolving in water and then mixing or metering into drip, sprinkler or furrow irrigation systems.

**FOLIAR APPLICATION DIRECTIONS:** *ChelStar 13% Manganese Chelate* may be applied in water or in combination with most pesticides. Buffer the spray solution to a pH of 6 to 6.5 for best performance. Thorough coverage and the use of wetting agents often enhance nutrient uptake from foliar sprays. Application rates and dilution factors depend on crop sensitivity, the amount of foliage to be sprayed, and the application method. Avoid applying *ChelStar 13% Manganese Chelate* when plants are suffering from moisture stress. If there is any doubt, apply the spray solution to a small test area of the crop or foliage to assess any undesirable effects or phytotoxicity before general application.

**AERIAL APPLICATION DIRECTIONS:** Apply 0.33 lb. of *ChelStar 13% Manganese Chelate* per acre in at least 10 gal. of water. For application timing and frequency, refer to following foliar application recommendations.

##### CROP RECOMMENDATIONS – SOIL APPLICATION

**VEGETABLE CROPS** (including beans, peas, potatoes, sweet corn, tomatoes) and **FIELD CROPS** (including corn, dry beans, sorghum, sugar beets, sugarcane): Apply *ChelStar 13% Manganese Chelate* at 4 to 12 lbs. per acre.

**TREE & VINE CROPS** (including almond, apple, apricot, avocado, berry, cherry, citrus, grape, mango, olive, pear, peach, pistachio, plum, walnut): Apply *ChelStar 13% Manganese Chelate* at 4 to 15 lbs. per acre or 0.5 to 2 oz. per inch of tree diameter.

**ORNAMENTAL SHRUBS & TREES** (including azaleas, gardenias, junipers, pines, roses): Apply *ChelStar 13% Manganese Chelate* at 2 Tbsp. for small shrubs and up to 2 Tbsp. per inch of tree diameter for large trees and shrubs.

**TURF:** Apply *ChelStar 13% Manganese Chelate* at 0.5 lb. per 1,000 sq. ft. or 22 lbs. per acre.

**Note:** the rates provided above are based on broadcast application. If broadcast rates are used for spot or banded applications, phytotoxicity may result.

##### CROP RECOMMENDATIONS – FOLIAR APPLICATION

**TREES (CITRUS):** Apply *ChelStar 13% Manganese Chelate* at 1 to 2 lbs. per 100 gal. of cover spray any time except during bloom.

**TREES & VINE CROPS** (excluding citrus): Apply *ChelStar 13% Manganese Chelate* at 1 to 2 lbs. per acre in sufficient spray volume for thorough coverage (25 gal. minimum) at dormant/delayed dormant before bloom, then after full bloom at 2 to 3 week intervals as needed. NOTE: For smooth-skinned fruit (peach, pear, apple, etc.) apply 1 lb. per acre in 50 to 100 gal. of water.

**VEGETABLE & FIELD CROPS** (ground equipment only): Apply *ChelStar 13% Manganese Chelate* at 0.33 to 1.33 lbs. per acre in sufficient spray volume for thorough coverage (25 gallon minimum).

**TURF:** Apply *ChelStar 13% Manganese Chelate* at 1 Tbsp. per 1,000 sq. ft. for general turf. Apply at 1 tsp. per 1,000 sq. ft. for golf greens. Always apply in sufficient spray volume for thorough coverage.

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

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

##### CONDITIONS OF SALE AND WARRANTY

*Chemurgic Agricultural Chemicals, Inc.* warrants that this product conforms to the chemical description on the label and is reasonably suited for the purposes stated when used as recommended under normal conditions.

Unintended consequences such as crop damage or poor performance may result from factors including, but not limited to, method of application, timing, crop and soil condition, weather, and other materials present, all of which are beyond the control of *Chemurgic Agricultural Chemicals, Inc.* and Seller.

*Chemurgic Agricultural Chemicals, Inc.* neither makes, nor authorizes any agent or representative to make any other warranties, expressed or implied, including fitness or merchantability.

Buyer and user acknowledge and assume all risks and liability resulting from the handling, storage and use of this material.

In no case shall *Chemurgic Agricultural Chemicals, Inc.* or the Seller be liable for consequential, special, indirect, or incidental damages or losses resulting from the handling or use of this product.

The foregoing is a condition of sale by *Chemurgic Agricultural Chemicals, Inc.* and is accepted as such by the Buyer.



**Chemurgic Agricultural Chemicals, Inc.**  
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**Net Weight: 25 Lbs (11.3 Kg)**