

# Material Safety Data Sheet

AgriSolutions™ MAX-IN® Vine & Vegetable

## Section 1 – PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** AgriSolutions™ MAX-IN® Vine & Vegetable  
**TRADE NAMES:** None  
**SYNONYMS:** Calcium, Boron, Manganese and zinc (in complexed form)  
**CHEMICAL FAMILY:** Metallic salt  
**MSDS CREATION DATE:** January, 2007  
**MSDS CURRENT REVISION DATE:** 05/13/08  
**DISTRIBUTED BY:** Winfield Solutions, LLC, PO Box 64589, St. Paul, Minnesota 55164-0589  
**EMERGENCY: CHEMTREC (24 Hour Emergency Response) 1-800-424-9300**  
**MEDICAL EMERGENCY: 1-877-424-7452**

## Section 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	% wt
Nitrogen (N) (in nitrate form)		1.0
Calcium (Ca) (in complexed form)		1.33
Boron (B) (in complexed form)		1.33
Manganese (Mn) (in complexed form)		0.66
Zinc (Zn) (in complexed form)		2.00
Proprietary Ingredients		5 to 25%
Water		Balance

Derived from: Calcium glucoheptonate, boric acid, manganese nitrate, zinc nitrate, and zinc glucoheptonate.

## Section 3 – HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** A light green liquid with a slight odor. Skin irritation possible with continued exposure. Harmful if swallowed. **NFPA Rating:** Health = 1, Fire = 0, Reactivity = 0

### POTENTIAL HEALTH EFFECTS:

**INHALATION:** Product mists cause irritation of the nasal membranes and upper respiratory tract. Prolonged inhalation of product mist may cause toxic affects to the lungs.

**SKIN CONTACT:** May cause irritation or burns.

**EYE CONTACT:** Contact can cause irritation or burns.

**INGESTION:** May irritate or burn the digestive tract. May be toxic if taken in large quantities.

**LONG-TERM AND/OR DELAYED EFFECTS:** Long-term inhalation of metallic manganese has resulted in toxic affects to the lungs.

### CARCINOGEN STATUS:

**OSHA:** Not listed    **NTP:** Not listed    **IARC:** Not listed

## Section 4 – FIRST AID MEASURES

**INHALATION:** Remove from exposure area to fresh air immediately. Get medical attention for irritation or any other symptom.

**SKIN CONTACT:** Remove contaminated clothing and shoes immediately. Wash affected area with running water. Get medical assistance for irritation or any other symptom.

**EYE CONTACT:** Flush eyes immediately with large amounts of water (approximately 15-20 minutes). Get medical attention for irritation or any other symptom.

**INGESTION:** Dilute the product immediately with large amounts of water or milk. Do not induce vomiting unless directed to do so by a doctor or other medical professional. If vomiting occurs, keep head lower than hips to prevent introduction of fluid into the lungs. Get medical attention immediately.

**NOTE TO PHYSICIAN:** Treat symptomatically.

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AgriSolutions™ MAX-IN® Vine & Vegetable

## Section 5 – FIRE-FIGHTING MEASURES

**FLASH POINT:** None

**AUTOIGNITION TEMPERATURE:** Not determined

**FIRE AND EXPLOSION HAZARD:** No special hazard anticipated.

**EXTINGUISHING MEDIA:** Use any standard agent suitable for surrounding structural fire or for other chemicals that may be involved.

**FIREFIGHTING:** Wear appropriate self-contained positive pressure breathing apparatus. Dike area to prevent runoff and contamination of water sources.

**HAZARDOUS COMBUSTION PRODUCTS:** Thermal decomposition may include carbon dioxide, carbon monoxide. Airborne manganese may also be present (harmful to respiratory system).

## Section 6 – ACCIDENTAL RELEASE MEASURES

**IN CASE OF SPILL:** Absorb small spills with sand or another absorbent. Dike larger spills and pump into containers for reuse and/or disposal. Do not allow product and/or runoff to enter sewers or waterways.

## Section 7 – HANDLING AND STORAGE

**STORAGE:** Store in a cool, dry place, between 40°F and 100°F. Protect containers from physical damage.

**NORMAL HANDLING:** Avoid contact with skin and eyes. Wash thoroughly after handling.

## Section 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE LIMITS

INGREDIENT	OSHA PEL	ACGIH TLV	Other values
Manganese	5 mg/m <sup>3</sup> (ceiling value for metallic fume)	0.2 mg/m <sup>3</sup>	None
Zinc Oxide (as fume)	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	None

\* = ACGIH Biological Exposure Value \*\* = AIHA Workplace Environmental Exposure Level

**VENTILATION:** Not normally required.

**EYE PROTECTION:** Wear safety glasses. Use of splash shields or safety goggles.

**CLOTHING:** Wear trousers and long sleeved shirt to avoid skin contact.

**GLOVES:** Wear rubber or other impervious gloves to prevent contact with this product.

**RESPIRATOR:** If product mists may be generated, use a NIOSH approved organic mist air-purifying respirator.

**EMERGENCY WASH FACILITIES:** Where there is the potential that an employee's eyes and/or skin may be exposed to this product, the employer should provide an eye wash fountain and safety shower or another source of running water within the immediate work area.

# Material Safety Data Sheet

AgriSolutions™ MAX-IN® Vine & Vegetable

## Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

**DESCRIPTION:** Clear light green liquid  
**MOLECULAR FORMULA:** Mixture  
**MOLECULAR WEIGHT:** Mixture  
**pH:** 4.4-4.8  
**MELTING POINT:** Not applicable  
**BOILING POINT:** Not determined  
**VAPOR PRESSURE:** Similar to water  
**VAPOR DENSITY:** Similar to water vapor  
**WATER SOLUBILITY:** Miscible  
**SOLVENT SOLUBILITY:** Not determined  
**SPECIFIC GRAVITY:** ~ 1.18, 9.8 lbs per gallon

## Section 10 – STABILITY AND REACTIVITY

**REACTIVITY:** Stable under normal temperatures and pressures.  
**CONDITIONS TO AVOID:** Avoid contact with strong oxidizers and/or excessive heat. Do not allow spilled material to contaminate water sources.  
**INCOMPATIBILITIES:** None  
**HAZARDOUS DECOMPOSITION:** Thermal decomposition may include carbon monoxide, carbon dioxide, and oxides of manganese and zinc.  
**POLYMERIZATION:** Has not been reported to occur under normal temperatures and pressures.

## Section 11 – TOXICOLOGICAL INFORMATION

No data available.

## Section 12 – ECOLOGICAL INFORMATION

**ACUTE AQUATIC TOXICITY:** No data available  
**DEGRADABILITY:** No data available  
**LOG BIOCONCENTRATION FACTOR (BCF):** No data available  
**LOG OCTANOL/WATER PARTITION COEFFICIENT:** No data available

## Section 13 – DISPOSAL CONSIDERATIONS

**Disposal:** Dispose of in an approved landfill or apply at recommended label rates.  
**Disposal Regulatory Requirement:** Follow applicable Federal, State and local regulations.

## Section 14 - TRANSPORT INFORMATION

This product is not regulated in surface transportation in quantities below 45,000 lbs in a single container.

## Section 15 – REGULATORY INFORMATION

## ***Material Safety Data Sheet***

### **AgriSolutions™ MAX-IN® Vine & Vegetable**

**TSCA STATUS:** All ingredients are listed on the TSCA Inventory of Chemical Substances and/or are in compliance with the TSCA chemical inventory and pre-manufacturing regulations.

**OTHER TSCA ISSUES:** None

**SARA 311 CLASSIFICATION:** Acute hazard.

**SARA 313 NOTIFICATION:** This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community-Right-To-Know Act of 1986 (40CFR 372): Manganese Compounds 5 to 9 percent by weight and Zinc Compounds 8 to 12 percent by weight..

**CERCLA RQs and TPQs:** Zinc: RQ = 1,000 #.

**CALIFORNIA PROPOSITION 65:** No ingredients found on the Propositions 65 list.

**CANADIAN INVENTORY:** Not determined. Fertilizer products are regulated under the Fertilizers Act.

**WHMIS:** This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. Classification: D2B

### **Section 16 – ADDITIONAL INFORMATION**

**CHANGES FROM PREVIOUS VERSION:** Revised the product name

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. Customers are responsible for compliance with local, state and federal regulations that may be pertinent in the storage, application and disposal of this product.