



# Safety Data Sheet

Report Date 13-Aug-18

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## 1. Identification

**Product Name** : ORBIX 8-5-3  
**Synonyms** : None  
**Product Use** : Ammonia Free Foliar Nutritional Concentrate  
**Manufacturer/Supplier** : Helena Agri-Enterprises, LLC  
**Address** : 225 Schilling Blvd. Collierville, TN 38017  
**General Information** : 901-761-0050  
**Transportation Emergency Number** : CHEMTREC:800-424-9300

## 2. Hazard Identification



**Signal Word** : Warning  
**Skin Irritation** : Slightly irritating (rabbits)  
**Eye Irritation** : Mildly irritating in nonwashed eyes. Minimally irritating in washed eyes. (rabbits)  
**Acute Toxicity Oral** : LD50 >5,010 mg/kg (rats)  
**Acute Toxicity Dermal** : LD50 >2,020 mg/kg (rabbits)

**Hazard Categories** : Oral/Dermal/Inhalation Toxicity-5/5/5; Eye/Skin Irritation-2B/3; Skin sensitization-1B

**Hazard Statement** : May be harmful if swallowed  
May be harmful in contact with skin  
May be harmful if inhaled  
Causes eye irritation  
Causes mild skin irritation  
May cause an allergic skin reaction

## 3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Blend of plant nutrients derived from Urea, Protein Hydrolysate, Potassium Phosphate, Sodium Tetraborate, Cobalt Sulfate, Sodium Molybdate, Iron EDTA, Copper EDTA, Manganese EDTA, and Zinc EDTA. The chelating agent is EDTA (ethylenediaminetetraacetic acid).	Proprietary	100.00
GUARANTEED ANALYSIS: Total Nitrogen (N): 7.5% Urea Nitrogen 0.5% Other Water Soluble Nitrogen		8.0%
Available Phosphate (P2O5): Soluble Potash (K2O): Boron (B): Cobalt (Co): Copper (Cu): 0.05% Chelated Copper Iron (Fe): 0.10% Chelated Iron Manganese (Mn): 0.05% Chelated Manganese Molybdenum (Mo): Zinc (Zn):		5.0% 3.0% 0.02% 0.0005% 0.05% 0.10% 0.05% 0.0005% 0.05%



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0.05% Chelated Zinc

## 4. First Aid Measures

**Eye** : Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

**Skin** : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**Inhalation** : Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**Ingestion** : Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth if unconscious.

**Indication of Immediate Medical Attention and Special Treatment Needed** : Treat symptomatically.

## 5. Fire Fighting Measures

**Extinguishing Media** : Use fire extinguishing media appropriate for surrounding materials. Water spray, foam, dry powder or carbon dioxide.

**Specific Hazards Arising from the Chemical** : This material is non-combustible. May emit ammonia gas, phosphoric acid, carbon dioxide and sulfur dioxide in extreme heat or fire conditions.

**Special Fire Fight Proc** : Use self-contained breathing apparatus in positive pressure mode with full face mask when there is a possibility of exposure to smoke, fumes or hazardous decomposition products. Keep runoff out of water and sewers.

## 6. Accidental Release Measures

**Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area. Avoid inhalation of vapors.

**Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

**Emergency Procedures** : Do not discharge onto ground or into bodies of water. Prevent entry into drains.

**Methods and Materials for Containment and Cleanup** : Absorb with dry earth, clay, sand or other non-combustible material. Use a tool to scoop up soil or absorbed material and place into appropriately labeled waste container. Keep out of water ways.

## 7. Handling and Storage

**Precautions for Safe Handling** : Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists. Ensure there is access to eyewash and showers close to the workstation location.

**Conditions for Safe Storage** : Keep containers tightly closed and store in a cool, well-ventilated area. Keep away from heat and direct sunlight.

## 8. Exposure Controls / Personal Protection

**TLV/PEL** : Not specified

**Appropriate Engineering Controls** : General and/or local exhaust should be sufficient.



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**Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

### 9. Physical and Chemical Properties

**Odor/Appearance** : Liquid  
**Flash Point, °F** : Not flammable  
**Boiling Point, °F** : No information for mixture  
**Melting Point(Freezing point), °C** : No information for mixture  
**Vapor Pressure, mm Hg @ 20 °C** : No information for mixture  
**Vapor Density** : No information for mixture  
**Solubility in Water** : Soluble  
**Molecular Formula** : Not applicable, formulated mixture.  
**Density, g/mL @ 25 °C** : 1.231  
**Evaporation Rate(Butyl Acetate = 1)** : No information for mixture  
**Octanol/Water Partition Coefficient** : Not applicable  
**pH** : 4 to 5.5 (neat)  
**Flammable Limits (approximate volume % in air)** : No information for mixture  
**Auto-ignition Temperature** : Not applicable  
**Decomposition temperature** : No information for mixture

### 10. Stability and Reactivity

**Reactivity** : No information for mixture  
**Chemical Stability** : Stable  
**Hazardous Decomposition Products** : May emit ammonia gas, phosphoric acid, carbon dioxide and sulfur dioxide in extreme heat or fire conditions.  
**Hazardous Polymerization** : Will not occur  
**Conditions to Avoid** : Avoid contact with alkaline materials.  
**Incompatible Materials** : Alkaline materials and strong oxidants.

### 11. Toxicological Information

**Acute Toxicity (Oral LD50)** : >5,010 mg/kg (rat). May be harmful if swallowed.  
**Acute Toxicity (Dermal LD50)** : >2,020 mg/kg (rabbit). May be harmful in contact with skin.  
**Acute Toxicity Inhalation LC50** : No information found. May be harmful if inhaled.  
**Likely Routes of Exposure** : Skin, eyes, inhalation  
**Skin Irritation** : Causes mild skin irritation.  
**Eye Irritation** : Causes eye irritation.  
**Skin Sensitization** : A sensitization reaction was produced in test group at 0.100% v/v in 0.9% saline (Guinea pig). May cause an allergic skin reaction.  
**Carcinogenic** : None currently known.  
**Chronic Effects** : None currently known.  
**Other Hazards** : None currently known.

### 12. Ecological Information

**Ecotoxicity** : No data available  
**Persistence and Degradability** : No data available



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**Bioaccumulative Potential** : No data available  
**Mobility in Soil** : No data available  
**Other Adverse Effects** : Keep out of water ways.

### 13. Disposal Considerations

**Waste Disposal Method** : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

### 14. Transport Information

**UN Proper Shipping Name** : Not regulated by DOT, IATA or IMDG.  
**Transport Hazard Class** : None  
**UN Identification Number** : None  
**Packaging Group** : None  
**Environmental Hazards** : No information for mixture.  
**Transport in Bulk** : No information for mixture.  
**Special Precautions for Transportation** : No information for mixture.  
**Freight Classification** : Fertilizing Compound, (Manufactured Fertilizer), Liquid, NOIBN (NMFC Item 68140, Sub 6, Class 70)

### 15. Regulatory Information

**National Fire Protection Association Rating** :

Health: 1 Fire: 0 Reactivity: 0  
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

**S.A.R.A Title III Hazard Classification (Yes/No)** :

Immediate( Acute) Health: Y  
Delayed (Chronic) Health: Y  
Sudden Release of Pressure: N  
Fire: N  
Reactive: N

### 16. Other Information

**Data of Preparation/Revision** : 13-August-2018