



# Safety Data Sheet

Report Date 31-May-15

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## 1. Identification

**Product Name** : QuickShot Max 4-0-0  
**Synonyms** : None  
**Product Use** : Chelated Micronutrients/Alpha Keto Acids/Alkanoate  
**Manufacturer/Supplier** : Helena Chemical Company  
**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** : Causes skin irritation.  
**Eye Irritation** : Causes serious eye irritation.  
**Acute Toxicity Oral** : LD50 = 1,520 mg/kg (ferrous sulfate heptahydrate)  
**Acute Toxicity Dermal** : No data available.

**Hazard Categories** : Oral/Dermal/Inhalation Toxicity-4/5/5; Eye/Skin Irritation-2A/2;  
STOT-Single Exposure-3; Oxidizer

**Hazard Statement** : May intensify fire; oxidizer  
Harmful if swallowed  
May be harmful in contact with skin  
Causes serious eye irritation  
Causes skin irritation  
May be harmful if inhaled  
May cause respiratory irritation

## 3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Blend of plant nutrients derived from Ferrous Sulfate Heptahydrate, Zinc Nitrate Solution, Manganese Nitrate Solution.	Proprietary	90-95
Also includes Alpha-Keto Acids and Alkanoates	Proprietary	5-10
GUARANTEED ANALYSIS:		
Total Nitrogen (N): 4.00%		
Iron (Fe): 0.50%		
Manganese (Mn): 4.00%		
Zinc (Zn): 4.00%		
The chelating agent is Glucoheptonate.		

## 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.



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- 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** : In the event of an adverse response, treatment should be directed toward control of the symptoms.

### 5. Fire Fighting Measures

- Extinguishing Media** : Non-combustible liquid. If involved in fire, use extinguishing agent suitable for underlying cause of fire.
- Specific Hazards Arising from the Chemical** : Oxidizer: May intensify fire. May react violently with combustible, organic or readily oxidizable materials.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing. This product increases the flammability of combustible, organic and readily-oxidizable materials.

### 6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area.
- 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** : Contain spilled product to prevent spreading to soil, waterways or drains.
- Methods and Materials for Containment and Cleanup** : If uncontaminated, collect and reuse as intended. If contaminated, collect with an absorbent and place in suitable chemical waste containers for proper disposal.

### 7. Handling and Storage

- Precautions for Safe Handling** : Keep locked up and out of reach of children. Do not contaminate water, food or feed by storage, handling or disposal. Keep container tightly closed. Do not allow water to be introduced into the contents of the container.
- Conditions for Safe Storage** : Store in original container only. Do not store near heat or open flame. Store away from combustible materials.

### 8. Exposure Controls / Personal Protection

- TLV/PEL** : Ferrous sulfate heptahydrate (Iron salts, soluble (as Fe)) TLV=1 mg/m<sup>3</sup>; Manganese nitrate (Manganese compounds), PEL=5 mg/m<sup>3</sup>, TLV=0.2 mg/m<sup>3</sup>
- Appropriate Engineering Controls** : Local exhaust should be sufficient.
- 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



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**Odor/Appearance** : Clear, dark red, brown to black liquid.  
**Flash Point, °F** : Non-combustible  
**Boiling Point, °F** : >100 Degrees C.  
**Melting Point(Freezing point), °C** : <0 Degrees C.  
**Vapor Pressure, mm Hg @ 20 °C** : Not determined  
**Vapor Density** : Not determined  
**Solubility in Water** : Soluble  
**Molecular Formula** : Not applicable, formulated mixture.  
**Density, g/mL @ 25 °C** : 1.260-1.280  
**Evaporation Rate(Butyl Acetate = 1)** : Not determined  
**Octanol/Water Partition Coefficient** : No information found  
**pH** : 3.0 to 4.0  
**Flammable Limits (approximate volume % in air)** : Not determined  
**Auto-ignition Temperature** : Not determined  
**Decomposition temperature** : No information found

### 10. Stability and Reactivity

**Reactivity** : No information found  
**Chemical Stability** : Stable  
**Hazardous Decomposition** : May produce oxides of carbon and nitrogen under fire conditions.  
**Products**  
**Hazardous Polymerization** : Will not occur  
**Conditions to Avoid** : Avoid contact with strong alkalis. May react violently with combustible, organic or readily oxidizable materials.  
**Incompatible Materials** : Avoid materials that react with acidic or oxidizing materials.

### 11. Toxicological Information

**Acute Toxicity (Oral LD50)** : 1,520 mg/kg (ferrous sulfate heptahydrate). Harmful if swallowed.  
**Acute Toxicity (Dermal LD50)** : No LD50 available. May be harmful in contact with skin.  
**Acute Toxicity Inhalation LC50** : No LC50 available. May be harmful if inhaled.  
**Likely Routes of Exposure** : Skin, eyes, ingestion, inhalation.  
**Skin Irritation** : Causes skin irritation.  
**Eye Irritation** : Causes serious eye irritation.  
**Skin Sensitization** : Not listed as a skin sensitizer.  
**Carcinogenic** : Not listed by IARC, NTP or OSHA.  
**Chronic Effects** : None currently known.  
**Other Hazards** : May cause respiratory irritation (manganese nitrate).

### 12. Ecological Information

**Ecotoxicity** : No information found  
**Persistence and Degradability** : No information found  
**Bioaccumulative Potential** : No information found  
**Mobility in Soil** : No information found  
**Other Adverse Effects** : No information found

### 13. Disposal Considerations



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**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 D.O.T. in accordance with 49 CFR 172.102 Special Provision 58.  
**Transport Hazard Class** : None  
**UN Identification Number** : None  
**Packaging Group** : None  
**Environmental Hazards** : No information found  
**Transport in Bulk** : No information found  
**Special Precautions for Transportation** : Reportable Quantity (RQ) for Zinc Nitrate=1,000 lbs/401 gallons; Ferrous Sulfate Heptahydrate=1,000 lbs/3,773 gallons  
**Freight Classification** : Fertilizing Compound, (Manufactured Fertilizer), Liquid, NOIBN (NMFC Item 68140, Sub 6, Class 70)

## 15. Regulatory Information

**National Fire Protection Association Rating** :

Health: 2      Fire: 1      Reactivity: 2  
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: N  
Sudden Release of Pressure: N  
Fire: Y  
Reactive: N

## 16. Other Information

**Data of Preparation/Revision** : 31-May-2015