

Material Safety Data Sheet

Effective Date: 17-JAN-2011
Product: QuickShot Max 4-0-0

I. IDENTIFICATION

Chemical Name: Chelated Micronutrients
Chemical Family: Chelated inorganic metal salts
Formula: Not applicable, formulated mixture.
Synonyms: None
CAS Number: Not applicable, formulated mixture.
EPA Number: None required

II. PHYSICAL DATA

Boiling Point: >100 Degrees C.
Freezing Point: <0 Degrees C.
Spec Gravity: 1.319 gms/cc
Vapor Pressure: Not determined
Vapor Density: Not determined
Solubility: Soluble
Volatiles: Not determined
Evaporation: Not determined
Melting Point: Not applicable
Appearance: Clear, dark reddish-brown to black liquid.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
Complexed metal salts of iron, manganese and zinc nitrates; Alpha-Keto-Acids and Alkanoates.		100.00	N/E	Skin & eye irritant.

Guaranteed Analysis:
Total Nitrogen (N): 4.00%
Iron (Fe): 0.50%
Manganese (Mn): 4.00%
Zinc (Zn): 4.00%

Derived from Ferric Nitrate, Manganese Nitrate, Zinc Nitrate. Chelating agent is glucoheptonate.

IV. FIRE AND EXPLOSION HAZARD

Flash Point: Non-combustible
Autoignition Temp: Not determined
Flammable Limit: Not determined
Extinguishing Media: Non-combustible liquid. If involved in fire, use extinguishing agent suitable for

Material Safety Data Sheet

Effective Date: 17-JAN-2011
Product: QuickShot Max 4-0-0

Special Fire Fight Proc: underlying cause of fire. Wear self-contained breathing apparatus and full protective clothing. This product increases the flammability of combustibile, organic and readily-oxidizable materials.
Fire and Expl Hazard: May react violently with combustibile, organic or readily oxidizable materials.

V. HEALTH HAZARD

Carcinogen Information: Not listed by IARC, NTP or OSHA.

ACUTE EFFECTS OF OVER EXPOSURE

Swallowing: Ingestion of large amounts of this product may cause irritation of the gastrointestinal tract due to the acidic nature (pH 2.0 to 3.0). Not toxicologically hazardous.
Skin Absorption: May be harmful if absorbed through skin.
Inhalation: Inhalation of spray mist may cause irritation to the upper respiratory tract due to the acidic nature of the product.
Skin contact: Skin contact may cause irritation.
Eye Contact: Severe irritation of the eyes may occur with contact due to the acidic nature of this product (pH 2.0 to 3.0).
Chronic Effects: None currently known.
Other Hazard: None currently known.

EMERGENCY AND FIRST AID PROCEDURES

Swallowing: Dilute by drinking large quantities of water. Immediately call a physician or poison control center for additional treatment advice.
Skin: Remove contaminated clothing and wash skin with soap and water. Call a physician if irritation develops or persists.
Inhalation: Move to fresh air. Give artificial respiration if needed. Immediately call a physician if irritation develops or persists.
Eyes: Immediately flush the eyes with water, continuing for at least 15 minutes. Seek medical attention.
Notes to Physician: In the event of an adverse response, treatment should be directed toward control of the symptoms and the clinical condition of the patient. Ingestion may cause irritation to the

Material Safety Data Sheet

Effective Date: 17-JAN-2011
Product: QuickShot Max 4-0-0

digestive tract due to the acidic nature of
the product (pH of 2.0 to 3.0).

VI. REACTIVITY

Stability: Stable
Conditions to Avoid: Avoid contact with strong alkalis.
Polymerization: Will Not Occur
Conditions to Avoid: Will not occur.
Incompatibility material: Avoid materials that react with acidic or
oxidizing materials.
Hazardous Combustion: May produce oxides of carbon and nitrogen
under fire conditions.

VII. SPILL OR LEAK PROCEDURES

Spill or Leak Proc: Contain spilled product. If uncontaminated,
collect and reuse as intended. If
contaminated, collect with an absorbent and
place in suitable chemical waste containers
for proper disposal.
Waste Disposal Method: This material must be disposed of according to
Federal, State or Local procedures under the
Resource Conservation and Recovery Act.

VIII. SPECIAL PROTECTION INFORMATION

Respiration: None needed under normal conditions of use.
Use NIOSH-approved respirator when needed.
Ventilation: Local exhaust sufficient.
Gloves: Impervious gloves.
Eyes: Splashproof goggles.
Other: Emergency shower, eyewash station, impervious
apron and footwear.

IX. SPECIAL PRECAUTIONS

Special precaution: Keep out of reach of children. Do not store
with food, feed or other material to be used
or consumed by humans or animals. Do not
contaminate water supplies, lakes, streams,
ponds or drains. Do not store near heat or
open flames.
Other precaution: None currently known.

Material Safety Data Sheet

Effective Date: 17-JAN-2011
Product: QuickShot Max 4-0-0

X. SHIPPING INFORMATION

Shipping name: Nitrates, Inorganic, Aqueous Solution (Iron, Manganese and Zinc Nitrates), 5.1, UN3218, PG II "ERG # 140"
Hazard Class: Oxidizer (5.1)
Identification No: UN3218
Labels Required: Oxidizer (5.1)
Placarding: Oxidizer (5.1)
Freight Class: Compound, Fertilizer (Manufactured Fertilizer), Liquid, NOIBN
Chemical Name Equivalent R.Q.
Zinc Nitrate (CAS No. 7779-88-6) 1,000 lbs / 2,273 gallons
Ferric Nitrate (CAS No. 10421-48-4) 1,000 lbs / 2,273 gallons

XI. GENERAL PRODUCT INFORMATION

National Fire Protection Association Rating:
(Rating level: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

Health: 2 Fire: 1 Reactivity: 2

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

Mail inquiries to: 225 Schilling Blvd., Suite 300 Collierville, TN 38017
Helena Chemical Company believes that the data contained herein is factual.
This data is not to be taken as a warranty or representation of legal responsibility. It is offered solely for your consideration, investigation and verification.