

# RSA MicroTech, LLC

## Material Safety Data Sheet

FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL:  
CHEMTREC 1-800-424-9300

### Section 1 – Chemical Product and Company Identification

Product Name: **Micro-Tech™ Manganese 5%**

Common Name: Micronutrient Fertilizer

Chemical Description: Chelated Micronutrient

Distributor's Name:

**RSA MicroTech, LLC**

PO Box 39

Marysville, WA 98270

Revision Date: 09-11-05

Emergency Telephone Number:

**CHEMTREC 1-800-424-9300**

International Telephone Number

703-527-3887

Replaces: new

### Section 2 – Composition Information on Ingredients

Ingredient	%	TLV or PEL
Nitrogen	2.0	N/A
Sulfur	2.0	N/A
Manganese	5.0	N/A
Proprietary Ingredients	10-25	N/A
water	balance	N/A

### NFPA HAZARD RATING:

0	Least		
1	Slight	<b>1</b>	Health
2	Moderate	<b>0</b>	Flammability
3	High	<b>0</b>	Stability
4	Severe		

Derived from manganese sulfate. Chelated with citric acid and glycine. Nitrogen derived from glycine

### Section 3 – Hazards Identification

**Emergency Overview:** See health effects below.

**CAUTION: Keep out of reach of children.**

**Route(s) of Entry:** Eyes, Inhalation, Skin and Ingestion

**Health Hazards (Acute and Chronic):**

**Inhalation:** Inhalation of mist may cause irritation of the upper respiratory tract.

**Eyes:** Irritation of eyes.

**Skin:** Contact may cause irritation. Prolonged or repeated exposure may lead to reddening of skin, rash, dermatitis or other skin reactions.

**Ingestion:** Harmful if swallowed.

**Carcinogenicity** NTP: Not Listed IARC: Not Listed OSHA: Not Listed

**Medical Conditions Generally Aggravated by Exposure:**

None known. Preexisting respiratory conditions may be aggravated by exposure to dusts.

### Section 4 – First Aid Measures

**Inhalation:** Remove person to fresh air and support breathing as needed. Seek medical attention if irritation persists.

**Ingestion:** Seek medical attention or call a poison control center immediately.

**Eyes:** Flush with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation.

Seek medical attention if eye irritation persists.

**Skin:** Remove contaminated clothing and wash before re-using. Flush skin with water, and then wash with soap and water. Seek medical attention if skin becomes irritated.

***After first aid, get appropriate in-plant, paramedic, or community medical support.***

## Section 5 – Fire and Explosion Hazard Data

<b>Flash Point:</b> Non-combustible	<b>Flammable Limits:</b> Non-combustible	<b>LEL:</b> Not Established	<b>UEL:</b> Not Established
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**Extinguishing Media:** Materials suitable to surrounding fire.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus. Smoke and fumes from fire may contain hazardous components.

**Hazardous Combustion Products:** This is not a flammable material. Metal fume fever may result from the inhalation of manganese oxides fume if manganese oxide is heated to high temperatures. Symptoms of metal fume fever include chills, fever, headache, tightness of chest, coughing, weakness, dryness of nose and mouth, muscular pain, nausea, and vomiting. Symptoms of metal fume fever occur about 4 to 12 hours after exposure and usually last about 24 hours.

**Unusual Fire and Explosion Hazards:** Closed containers may explode from vapor expansion in high heat. Contain run off by diking to prevent contamination to water supplies.

## Section 6 – Accidental Release Measures

**Small Spills:** Clean up personnel should protect against mist inhalation and skin contact. Avoid generating mists. Spills when handling should be cleaned up immediately to prevent spreading.

**Large Spills:** Clean up personnel should protect against mist inhalation and skin contact. Avoid generating mist.

**Containment:** Do not release into sewers or waterways. Dike spills to prevent contamination to water supplies. Contained spills, absorb liquids by covering with clay or other absorbent material, vacuum, scoop or sweep up waste and place in a container for disposal.

## Section 7 – Precautions for Safe Handling and Use

**Precautions to Be taken in Handling and Storing:** Store in cool, dry areas away from children, feed and food products and sources of heat. Immediately clean up spills that occur during handling or storage. Protect from freezing, keep containers closed when not in use. Do not store in aluminum vessels.

**Other Precautions:** Consult local, State and Federal regulations pertaining to storage and disposal.

## Section 8 – Control Measures / Personal Protection

**Respiratory Protection (*Specify Type*):** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear an MSHA/NIOSH-approved respirator.

**Ventilation: Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred.

**Protective Gloves:** Wear chemically protective gloves

**Eye Protection:** Wear protective eyeglasses or chemical safety goggles. Contact lenses are not eye protective devices.

**Other Protective Clothing or Equipment:** Wear chemically protective boots, aprons and gauntlets to prevent prolonged or repeated skin contact.

**Work / Hygienic Practices:** Never eat, drink or smoke in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet or applying cosmetics.

## Section 9 – Physical / Chemical Characteristics

<b>Physical State:</b>	Liquid	<b>Specific Gravity (water=1)</b>	1.26 ( 10.5 lbs gal.)
<b>Vapor Pressure (mm Hg.)</b>	N/A	<b>Freezing Point</b>	32°F

<b>Vapor Density (AIR=1)</b>	N/A	<b>Boiling Point</b>	212°F
<b>Solubility in Water:</b>	100%	<b>pH</b>	3.9
<b>Appearance and Odor</b>	brown liquid with a slight odor.		

**Section 10 – Reactivity Data**

**Stability:** Product stable at room temperature in tightly closed containers under normal storage and handling conditions.

**Chemical Incompatibilities:** strong bases

**Conditions to avoid:** Jar test with orthophosphate to check compatibility before full scale mixing.

**Hazardous Decomposition Products:** Toxic gases may be formed in a fire situation, carbon monoxide and other asphyxiates may form as well.

**Hazardous Polymerization:** Cannot occur.

**Section 11 – Toxicological Information**

**Eye Effects:** Irritation

**Chronic Effects:** Repeated or prolonged exposure may lead to dry skin and subsequent irritation contact dermatitis

**Skin Effects:** May cause irritation

**Carcinogenicity:** Not listed as carcinogenic

**Acute Inhalation Effects:** Not Determined

**Mutagenicity:** Not listed as mutagenic

**Acute Oral Effects:** Not Determined

**Teratogenicity:** Unknown

**Section 12 – Ecological Information**

**Soil Absorption / Mobility:** Limited Mobility in soil profile

**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**

Not regulated by the DOT for packages size less than 250 gallons.

**Section 15 – Regulatory Information**

<b>SARA TITLE II HAZARD CATEGORY:</b>	<b>Immediate: Yes</b>	<b>Delayed: No</b>
<b>Sudden Release of Pressure: No</b>	<b>Fire: No</b>	<b>Reactive: No</b>

**CERCLA:** None Listed

**SARA, TITLE III, SECTION 313:** None listed.

**Section 16 – Other**

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Reviewed by: Dennis Belau

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