

# 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: **Ruffin-Redy® CROP MIX I**

Common Name: Liquid Fertilizer Micronutrient Compound

Chemical Description: Liquid Fertilizer Micronutrient Compound

Manufacturer's Name:  
**RSA MicroTech, LLC**

PO Box 64589

St Paul, MN 55164-0589

Date Prepared: 11-15-03

Emergency Telephone Number:  
**CHEMTREC 1-800-424-9300**

Revision Date: 04-05-06

### Section 2 – Composition Information on Ingredients

Derived from: Manganese Sulfate, Citric Acid, Ammonium Hydroxide, Zinc Sulfate, Copper Chloride, Chelating agents citric acid and EDTA

Ingredient	%	TLV or PEL
Manganese (Mn) As metal	3.00	N/A
Sulfur (S) Combined	2.00	N/A
Proprietary Ingredients	15.00-20.00	N/A
Copper (Cu) As metal	1.00	N/A
Zinc (Zn) As metal	5.00	N/A
Nitrogen (N)	5.00	N/A
Water	balance	

### NFPA HAZARD RATING:

0	Least		
1	Slight	1	Health
2	Moderate	0	Flammability
3	High	0	Instability
4	Severe		

### 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 mists.

### 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 and full bunker gear. Smoke and fumes from fire may contain hazardous components.

**Hazardous Combustion Products:** Oxides of nitrogen and other toxic gases may be formed in a fire situation, carbon monoxide and other asphyxiates may form as well.

**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. Product stored in packaged, keep above 32°F. Do not store in aluminum or metal 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>	1.319 (11.00 lbs gal.)
<b>Vapor Pressure (mm Hg.)</b>	N/A	<b>Freezing Point</b>	N/A
<b>Vapor Density (AIR=1)</b>	N/A	<b>Boiling Point</b>	212F
<b>Solubility in Water:</b>	100%	<b>pH</b>	7.50-8.00
<b>Appearance and Odor</b>	Dark blue liquid, slight ammonia odor.		

### **Section 10 – Reactivity Data**

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

**Chemical Incompatibilities:** Strong bases and Acids

**Conditions to avoid:** Avoid excessive heat.

**Hazardous Decomposition Products:** Oxides of nitrogen and other 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:** No unusual chronic effects

**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:** Mobile 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 .

### **Section 15 – Regulatory Information**

**SARA TITLE II HAZARD CATEGORY:**

Immediate: **Yes**

Delayed: **No**

Sudden Release of Pressure: **No**

Fire: **No**

Reactive: **No**

**CERCLA:** None Listed.

**SARA, TITLE III, SECTION 313:** 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 15.00 percentage by weight. Zinc Compounds 12.00 percentage by weight. Copper Compounds 8.00 percentage by weight.

### **Section 16 – Other**

**Disclaimer:** All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of this product. Users also assume all risks in regards to the publications of use of, or reliance upon, information contained therein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.