

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: **RSA IronMan +**

Common Name: 6-0-0 Micronutrient fertilizer solution, liquid

Chemical Description: Micronutrient Fertilizer Solution, liquid

Manufacturer's Name:
RSA MicroTech, LLC
PO Box 39
Marysville, WA 98270
Revision Date: 2-14-05

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

Replaces: 6/10/03

Section 2 – Composition Information on Ingredients

Derived from Urea, Ferrous Sulfate, Ferric Chloride, Ferric Nitrate, Manganese Nitrate, and Zinc Nitrate.

Ingredient	%	TLV or PEL
Nitrogen (N)	6.0	N/A
Iron (Fe)	5.0	N/A
Manganese (Mn)	2.0	N/A
Zinc (Zn)	1.0	N/A
Water	balance	N/A

NFPA HAZARD RATING:

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

Section 3 – Hazards Identification

Emergency Overview: Product is acidic and may cause oxygen deficiency in enclosed spaces, follow all OSHA regulations pertaining to enclosed space entry. 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			
Flash Point: Non-combustible	Flammable Limits: Non-combustible	LEL: Not Established	UEL: Not Established
<p>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: 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.</p>			
Section 6 – Accidental Release Measures			
<p>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.</p>			
Section 7 – Precautions for Safe Handling and Use			
<p>Precautions to Be taken in Handling and Storing: Store in a cool, dry place. Protect containers from physical damage. Product can be corrosive to tanks, pumps, meters and fittings. Store in stainless steel or polyethylene tanks with stainless steel or polypropylene/polyethylene fittings Other Precautions: Consult local, State and Federal regulations pertaining to storage and disposal.</p>			
Section 8 – Control Measures / Personal Protection			
<p>Respiratory Protection (<i>Specify Type</i>): 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.</p>			
<p>Ventilation: Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred.</p>			
<p>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.</p>			
Section 9 – Physical / Chemical Characteristics			
Physical State:	Liquid	Specific Gravity (water=1)	1.307 (10.9 lbs gal).
Solubility in Water:	Miscible	Freezing Point	32 °F
Boiling Point	212 °F	pH	1 to 3
Appearance and Odor	Clear, slightly green liquid with no odor		
Section 10 – Reactivity Data			
<p>Stability: Product stable at room temperature in closed containers under normal storage and handling conditions Chemical Incompatibilities: Strong alkalis</p>			
<p>Conditions to avoid: Avoid excessive heat. Hazardous Decomposition Products: Toxic gases may be formed in a fire situation, carbon monoxide and other asphyxiates may form as well.</p>			

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	
Mutagenicity: Not listed as mutagenic		
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 US DOT.		Do not ship by air!
Section 15 – Regulatory Information		
SARA TITLE II HAZARD CATEGORY:	Immediate: Yes	Delayed: No
Sudden Release of Pressure: No	Fire: No	Reactive: No
CERCLA: Ferrous sulfate RQ 1,000 lbs; Zinc Nitrate RQ 1,000 lbs., can not be meet any in package sizes		
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 5.9 percentage by weight and Zinc Compounds 5.9 percentage by weight..		
Section 16 – Other		
Prepared by: Weldon McFarland		Reviewed by: Dennis Belau
<p>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.</p>		