

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 Flo Cell™ Manganese 27**

Common Name: Manganese Flowable Fertilizer

Chemical Description: Manganese Suspension Fertilizer

Distributor's Name:

RSA MicroTech, LLC

PO Box 39

Marysville, WA 98270

Revision Date: 5-15-05

Emergency Telephone Number:

CHEMTREC 1-800-424-9300

International Telephone Number

703-527-3887

Replaces: new

Ingredient	%
Nitrogen	2.5
Manganese	27
Proprietary Ingredients	5.00-20.00
Water	Balance

Derived from urea (57-13-6) and manganese carbonate (598-62-9)

NFPA HAZARD RATING:

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

Section 2– 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

Flash Point: Non-combustible	Flammable Limits: Non-combustible	LEL: Not Established	UEL: 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: 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 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

Physical State:	Liquid	Specific Gravity (water=1)	1.82-1.83
Freezing Point	32°F	Boiling Point	212°F
Solubility in Water:	practically insoluble		pH 8-9
Appearance and Odor	Pink to light brown suspension with virtually no odor.		

Section 10 – Reactivity Data

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

Chemical Incompatibilities: strong acids, strong bases and strong oxidizing agents- may decompose

Conditions to avoid:

Hazardous Decomposition Products: Toxic gases may be formed in a fire situation, carbon monoxide and other asphyxiates may form as well. Decomposes on heating emitting toxic fumes of copper oxide,

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 highway or rail transportation.

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: None listed.

Section 16 – Other

Prepared by: Mike Barry

Reviewed by: Dennis Belau

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