

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

**Section 1—Chemical Product and Company Identification**

<b>Product Name:</b>	Gravity™ L 12-0-0 with Max-In® Technology		
<b>Common Name:</b>	Liquid fertilizer with micronutrients		
<b>Chemical Description:</b>	Liquid fertilizer derived from Urea, Iron Sulfate and Manganese Sulfates		
<b>Manufactured For:</b> <b>WINFIELD SOLUTIONS, LLC</b> P. O. Box 64589 St. Paul, MN 55164-0589	<b>Medical Emergency Telephone Number:</b> <b>1-877-424-7452</b>		<b>MSDS Revision Date:</b> 02/01/2013

**Section 2—Hazards Identification**

**Emergency Overview:** Brown liquid with burned caramel odor. May cause eye and skin irritation. Maybe harmful if ingested. Product may cause oxygen deficiency in confined spaces; follow all OSHA regulations pertaining to confined 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:** May cause 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.

**Medical Conditions Generally Aggravated by Exposure:**

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

**Section 3—Composition Information on Ingredients**

<b>Ingredient</b>	<b>% (wt)</b>	<b>CAS reg. #</b>
Ferrous Sulfate	24.5%	7783-63-0
Manganese Sulfate	3.2%	10034-96-5

\*Ingredients not specifically listed are non-hazardous and considered to be confidential business information.

<b>NFPA HAZARD RATING:</b>			
0	Least		
1	Slight	1	Health
2	Moderate	0	Flammability
3	High	0	Reactivity
4	Severe		

**Section 4—First Aid Measures**

**Inhalation:** Remove person to fresh air. If not breathing give artificial respiration and get medical attention.

**Ingestion:** Seek medical attention or call a poison control center immediately. Do not give anything by mouth to an unconscious person.

**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 irritation persists.

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

### **Section 5—Fire and Explosion Hazard Data**

**Extinguishing Media:** Use foam, carbon dioxide, dry chemical or water fog.  
**Special Fire Fighting Procedures:** Wear positive pressure self-contained breathing apparatus and full bunker gear. Smoke and fumes from fire may contain hazardous components. Contain any liquid run off.  
**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:** None known.

### **Section 6—Accidental Release Measures**

**Small Spills:** Clean-up personnel should protect against mist inhalation and skin contact. Avoid generating mists. Spills should be cleaned up immediately to prevent spreading.  
**Large Spills:** Clean-up personnel should protect against mist inhalation and skin contact. Avoid generating mists. Spills should be cleaned up immediately to prevent spreading.  
**Containment:** Do not release into sewers or waterways. Dike spills to prevent contamination to water supplies. Contain spills and 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 Storage:** Store in original container in cool, well ventilated dry areas away from children, feed and food products and sources of heat. Immediately clean up spills that occur during handling or storage. Store at temperatures between 40 and 95°F. Protect from freezing. Keep containers closed when not in use. Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.  
**Other Precautions:** Consult Federal, state and local regulations pertaining to storage and disposal.

### **Section 8—Control Measures/Personal Protection**

**Exposure Limits:** Manganese compounds, 5 mg/m<sup>3</sup> (OSHA PEL)  
**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a properly FIT TESTED 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 chemical safety goggles or safety glasses and full face shield to prevent eye contact. 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, nor 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 (H<sub>2</sub>O=1):</b>	Not available
<b>Vapor Pressure (mm Hg):</b>	Not available	<b>Freezing Point:</b>	10°F
<b>Vapor Density (Air=1):</b>	Not available	<b>Boiling Point:</b>	>200°F
<b>Solubility in Water (wt %):</b>	Miscible	<b>pH:</b>	Not available
<b>Appearance and odor:</b>	Green to brown with slight sweet odor.	<b>Flash Point:</b>	Does not flash

### **Section 10—Reactivity Data**

**Stability:** Product stable at room temperature in closed containers under normal storage and handling conditions.  
**Chemical Incompatibilities:** Not available  
**Conditions to Avoid:** Intense heat and flames  
**Hazardous Decomposition Products:** Burning may result in carbon monoxide fumes.  
**Hazardous Polymerization:** Will not occur.

### **Section 11—Toxicological Information**

<b>Eye Effects:</b>	May cause temporary eye Irritation
<b>Skin Effects:</b>	May cause slight irritation, especially from prolonged exposure. May cause redness.
<b>Acute Inhalation Effects:</b>	May cause mild irritation of nasal mucus membranes
<b>Acute Oral Effects:</b>	May cause stomach cramps and/or nausea.
<b>Chronic Effects:</b>	Not determined
<b>Mutagenicity:</b>	Not determined
<b>Teratogenicity:</b>	Not determined
<b>Carcinogenicity:</b>	NTP: Not available                      IARC: Not available                      OSHA: Not available

### **Section 12—Ecological Information**

**Soil Absorption/Mobility:** Mobile in soil profile.

### **Section 13—Disposal Considerations**

**Waste:** Dispose of in accordance with applicable Federal, state and local laws and regulations.  
**Container:** Triple rinse (or equivalent) the empty containers. Then offer for recycling or reconditioning.  
**RCRA characteristics:** It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

### **Section 14—Transport Information**

Not regulated as a hazardous substance for transport by the U.S. DOT.

### **Section 15—Regulatory Information**

**TSCA Inventory:** All components are listed

**SARA Title III, Section 302:** None listed

<b>SARA Title III, Section 311/312:</b>	Immediate: <b>Yes</b>	Delayed: <b>No</b>
Sudden Release of Pressure: <b>No</b>	Fire: <b>No</b>	Reactive: <b>No</b>

**SARA Title III, Section 313:** Manganese compounds – Category N450

**CERCLA:** Manganese sulfate does not have a reportable quantity (RQ) however, manganese compounds are considered to be a CERCLA hazardous substance.

**PROPOSITION 65: WARNING:** This product may contain chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

### **Section 16—Other**

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