

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

<u>Section 1—Chemical Product and Company Identification</u>	
Product Name:	Gravity™ L 5-0-0 with Max-In® Technology
Common Name:	Micronutrient Fertilizer
Chemical Description:	Complexed liquid micronutrient fertilizer
Manufactured For: WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	Medical Emergency Telephone Number: 1-877-424-7452 MSDS Creation Date: 02/01/2013

<u>Section 2—Hazards Identification</u>
Emergency Overview: Brown liquid with slight sweet odor. 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: Irritation of eyes. Skin: Contact may cause irritation. Ingestion: Harmful if swallowed.
Medical Conditions Generally Aggravated by Exposure: None known. Preexisting respiratory conditions may be aggravated by exposure to mists.

<u>Section 3—Composition Information on Ingredients</u>		
Ingredient	% (wt)	CAS reg. #
Ferrous Sulfate	20.0%	7783-63-0
Manganese Sulfate	2.5%	10034-96-5
Zinc Sulfate	1.5%	7446-19-7

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

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

<u>Section 4—First Aid Measures</u>	
Inhalation:	Remove person to fresh air and assist breathing as needed. Seek medical attention.
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.
Skin:	Remove contaminated clothing and wash before re-using. Flush skin with water, and then wash with plenty of 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 a cool, well ventilated dry space between 40 and 95°F. Keep out of reach of children. Do not store near feed and food products. Immediately clean up spills that occur during handling or storage. Keep containers closed when not in use. Do not stack pallets greater than 2 high.

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

Section 8—Control Measures/Personal Protection

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 goggles or safety glasses with 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

Physical State:	Liquid	Specific Gravity (H₂O=1):	Not determined
Vapor Pressure (mm Hg):	Not determined	Freezing Point:	Not determined
Vapor Density (Air=1):	Not determined	Boiling Point:	>230°F
Solubility in Water (wt %):	89% soluble	pH:	2 - 4
Appearance and odor:	Brown with slight sweet odor	Flash Point:	Does not flash

Section 10—Reactivity Data

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

Chemical Incompatibilities: Strong acids, chlorides, nitrocarbons, chlorocarbons or strong bases.

Conditions to Avoid: Avoid excessive heat over 130°F

Hazardous Decomposition Products: Oxides of sulfur, nitrogen, and other chemicals may be formed in a fire situation. Carbon monoxide and other asphyxiates may form as well.

Hazardous Polymerization: Will not occur.

Section 11—Toxicological Information

Eye Effects:	Irritant. May cause redness and burning.		
Skin Effects:	Irritant, especially from prolonged exposure. Concentrate may cause slight burn to human tissue.		
Acute Inhalation Effects:	None expected, but inhalation may cause mild irritation of nasal mucus membranes.		
Acute Oral Effects:	May cause stomach cramps and/or nausea.		
Chronic Effects:	Not determined		
Mutagenicity:	Not determined		
Teratogenicity:	Not determined		
Carcinogenicity:	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: Do not contaminate any waterways by discharge of waste effluents, or equipment wash water. 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 by the U.S. DOT as a hazardous material.

Section 15—Regulatory Information

TSCA Inventory: Not determined

SARA Title III, Section 302: None listed

SARA Title III, Section 311/312:	Immediate: Yes	Delayed: No
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Sudden Release of Pressure: No	Fire: No	Reactive: No
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SARA Title III, Section 313: Zinc Compounds 1.5%, Manganese Compounds 2.5%

CERCLA: Zinc sulfate has a reportable quantity (RQ) of 1,000 lbs. (Not reached with any practical quantity.)

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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