



## SAFETY DATA SHEET

### 1. IDENTIFICATION

**Trade Name:** MicroLink Manganese  
**Chemical Name:** Liquid Fertilizer Solution  
**Manufacturer:** C.O.G. Marketers, LTD.  
**Address:** 3055 W. M-21  
St. Johns, MI 48879

**Product Informaton:** 800 678-9029  
**24 Hour Emergency:** ChemTel Inc. 800-255-3924

**Revision Date:** February 25, 2020

### 2. HAZARDS IDENTIFICATION

**GHS – Classification:** Signal Word: Warning  
**GHS – Classification:** Pictogram: GHS07  
**Health:** Inhalation: H335 If misty condition prevails, may irritate.  
Ingestion: H303 Low oral toxicity.  
Skin: H317 Low skin irritation potential. (pH 6.8 to 7.2)  
Eyes: H320 Low eye irritation potential. (pH 6.8 to 7.2)

**Precautionary Statements:**



P261 Avoid breathing mists or vapors.  
P262 Do not get in eyes, on skin or on clothing.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves, protective clothing and eye protection.  
If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P341 If swallowed: call a POISON CENTER or doctor/physician if you feel unwell.  
P301+P312 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P305+P351+P338

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Element	% Guarantee
Manganese (Mn)	4%

#### 4. FIRST AID MEASURES

<b>Eye Contact:</b>	Flush eyes immediately and thoroughly with water for at least 15 minutes. If irritation persists, get medical attention.
<b>Skin Contact:</b>	Flush skin immediately and thoroughly with water. If irritation persists, get medical attention.
<b>Inhalation:</b>	Generally not considered an inhalation hazard.
<b>Ingestion:</b>	If conscious, immediately give large quantities of water. Consult a physician.

#### 5. FIRE-FIGHTING MEASURES

<b>Unusual fire and explosion hazards:</b>	When heated, it may give off ammonia fumes (this material is a fire retardant).
<b>Fire extinguishing agents recommended:</b>	All standard agents are acceptable.
<b>Special fire-fighting precautions:</b>	Due to possible evolution of ammonia, wear self-contained breathing apparatus approved by NIOSH. Use water spray to keep containers cool.

#### NFPA HAZARD RATING:

0 Least
1 Slight
2 Moderate
3 High
4 Severe

1 Health
0 Flammability
0 Reactivity



#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Ensure adequate ventilation. Use personal protective equipment.
<b>Cleanup:</b>	Soak up with inert absorbent material. A vacuum truck may also be used. Keep in a suitable closed container for disposal.

#### 7. HANDLING AND STORAGE

<b>Normal Handling:</b>	Avoid breathing mist, if any should be formed. Minimize contact of liquid with eye, skin, and clothing. Use good personal hygiene and housekeeping.
<b>Storage:</b>	Avoid using containers, pipes and fittings made of aluminum, mild steel, zinc-clad or, copper bearing alloys.

#### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>Ventilation:</b>	Unless heated to evolve ammonia or misted by heat, agitation, or spraying, natural ventilation should be adequate.
<b>Spill or Leak:</b>	Contain spills and maximize recovery. Cleanup promptly into a container. (Caution should be exercised in the area of spilled material since it can cause a slippery condition.)
<b>Respiratory Protection:</b>	Respirators are not required under normal ventilated conditions.
<b>Eyes and Face:</b>	Safety glasses are recommended.
<b>Hands, Arms, &amp; Body:</b>	Rubber coated gloves and clothing which minimize skin exposure are recommended if there is prolonged or repeated exposure of skin to liquid.

## 9. PHYSICAL DATA

<b>Flashpoint:</b>	NA	<b>Lower Flammability Limit:</b>	NA
<b>Autoignition Temperature:</b>	NA	<b>Upper Flammability Limit:</b>	NA
<b>Boiling Point:</b>	NA	<b>Specific Gravity:</b>	1.246
<b>Melting Point:</b>	NA	<b>Weight:</b>	10.40 lbs/gal
<b>Freezing Point:</b>	20°F		
<b>Vapor Pressure:</b>	NA	<b>% Volatile:</b>	NA
<b>Vapor Density (Air=1)</b>	NA	<b>Evaporation Rate (Water=1)</b>	NA
<b>% Solubility in Water:</b>	100	<b>Viscosity:</b>	NA
<b>Pour Point:</b>	NA	<b>Octanol/Water Partition Coefficient:</b>	NA
<b>Molecular Formula:</b>	NA	<b>pH:</b>	6.8 to 7.2
<b>Salt-Out Point:</b>	NA	<b>Molecular Weight:</b>	NA
<b>Odor/Appearance:</b>	Light Orange Liquid		

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable.
<b>Conditions to avoid:</b>	Avoid extreme temperature changes.
<b>Incompatibilities:</b>	Avoid mixing with products containing boron, calcium, magnesium, and large amounts of ammonium sulfate as these will form crystalline fallout after a short period of time. Always perform a jar test to determine compatibility.

## 11. TOXICOLOGICAL INFORMATION

<b>Routes of Exposure:</b>	Eye Contact. Ingestion. Inhalation.		
<b>Toxicity Data:</b>	Not determined.		
<b>Chronic Toxic Effects:</b>	<u>Carcinogenic Effects:</u>	Not determined.	
	<u>Mutagenic Effects:</u>	Not determined.	
	<u>Teratogenic Effects:</u>	Not determined.	
	<u>Developmental Effects:</u>	Not determined.	
	There is no known effect from chronic exposure to this product. Repeated or prolonged exposure is not known to aggravate existing medical conditions.		
<b>Acute Toxic Effects:</b>	Not determined.		

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	Not determined.
<b>Other Ecotoxicological Advice:</b>	No ecological data available.

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal of Material:</b>	Dispose of in accordance to national, state, and local regulations.
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## 14. TRANSPORT INFORMATION

<b>DOT:</b>	Not regulated.
<b>IATA:</b>	Not regulated.
<b>IMDG:</b>	Not regulated.

## 15. REGULATORY INFORMATION

Canada:	<u>WMIS Hazard Class:</u>	Not determined.
	<u>DSL:</u>	All components either exempt or listed on DSL.
United States:	<u>SARA 313:</u>	Not applicable.
	<u>SARA 311/312:</u>	Not applicable.
	<u>TSCA:</u>	All components either exempt or listed on TSCA inventory.
	<u>OSHA:</u>	Classified as not hazardous under OSHA regulations.
Mexico – Grade:		No information available.
International Regulations: CWC:		This product does not contain any component(s) listed under the CWC Schedule of Chemicals.

## 16. OTHER INFORMATION

Legend:	DOT: Department of Transportation (US) IATA: International Air Transport Association IMDG: International Maritime Dangerous Goods Code WHMIS: Workplace Hazardous Material Information System DSL: Domestic Substances List SARA: Superfund Amendments and Reauthorization Act TSCA: Toxic Substances Control Act OSHA: Occupational Safety and Health Administration AICS: Inventory of Chemical Substances CWC: Chemical Weapons Convention
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