


Safety Data Sheet

NFPA HAZARD RATING				U.S. TRANSPORT SUMMARY	
0	Least			Not regulated by the U.S. DOT as a hazardous material. See Section 14 for additional information.	
1	Slight	1	Health		
2	Moderate	0	Flammability		
3	High	0	Reactivity		
4	Severe				

SECTION 1: IDENTIFICATION	
Product Name:	Crop Booster® Manganese 5%
EPA Registration #:	Exempt
Product ID/Unity #:	10123662, 16120922
Common Name:	Manganese fertilizer
Chemical Description:	Manganese fertilizer
Recommended Uses:	Fertilizer product – See product label for full directions for use.
Restrictions for Use:	See product label for any potential restrictions on use.
Manufactured For: WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs) Non-Emergency Business Inquiries: 1-855-494-6343 Mon – Fri 8am – 5pm (Central Standard Time)
FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL: CHEMTREC 1-800-424-9300 (24 hours)	

SECTION 2: HAZARDS IDENTIFICATION	
EMERGENCY OVERVIEW: Pink liquid. Causes serious eye and skin irritation. Harmful if swallowed.	
POTENTIAL HEALTH EFFECTS: Eyes: Causes serious eye irritation. Skin: Causes serious skin irritation. Inhalation: May cause irritation of the upper respiratory tract. Ingestion: Harmful if swallowed. May cause irritation of the mouth and esophagus. Preexisting Conditions: Pre-existing respiratory and skin conditions may be aggravated by exposure. Chronic Health Effects: None known	
Carcinogenicity	NTP: Not listed IARC: Not listed OSHA: Not listed
OSHA HCS 2012 CLASSIFICATION: Skin Irritation Category 2; Eye Irritation Category 2A	
SIGNAL WORD: WARNING	
HAZARD STATEMENTS: Causes skin irritation. Causes serious eye irritation.	
Percent of product with unknown toxicity: 1.45%	
PRECAUTIONARY STATEMENTS: Prevention: Wash hands thoroughly after handling. Wear eye and face protection and protective gloves. Response: If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse. If in eyes: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. Storage: See section 7 for storage information. Disposal: See section 13 for disposal information.	

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS		
Ingredient	% (wt)	CAS Reg. #
Manganese sulfate	9.0 – 10.0%	7785-87-7
Manganese citrate	6.0 – 7.0%	10024-66-5
Manganese salt of dipotassium EDTA	<0.5%	68015-77-0
*Ingredients not specifically listed are non-hazardous and/or are considered to be confidential business information under 29 CFR 1910.1200(i).		
See Section 8 for exposure limits.		

SECTION 4: FIRST AID MEASURES	
Inhalation:	Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
Ingestion:	Seek medical attention or call a poison control center immediately for treatment advice. Do not induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Eyes:	Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention immediately.
Skin:	Remove contaminated clothing and wash before re-using. Flush skin with water and then wash with soap and water. Seek medical attention immediately.

SECTION 5: FIRE FIGHTING MEASURES	
Suitable Extinguishing Media:	Water fog, foam, dry chemical powder, carbon dioxide (CO ₂)
Unsuitable Extinguishing Media:	Water jet – this may spread the fire
Special Fire Fighting Procedures:	Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Avoid breathing vapors; keep upwind.
Hazardous Combustion Products:	Carbon oxides and nitrogen oxides may be formed under fire conditions.
Unusual Fire and Explosion Hazards:	None known

SECTION 6: ACCIDENTAL RELEASE MEASURES	
Personal Precautions:	Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.
Environmental Precautions:	Do not allow spilled product to enter sewers or waterways.
Methods for Containment:	Contain spilled product by diking area with sand or earth.
Methods for Clean-up:	Cover contained spill with an inert absorbent material such as sand, vermiculite or other appropriate material. Vacuum, scoop or sweep up material and place in a container for disposal. Do not place spilled material back in original container.
Other Information:	None known

SECTION 7: HANDLING AND STORAGE	
Handling:	Ensure adequate ventilation during handling and use. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.
Storage:	Store in a secured area, away from children, feed and food products. Store in original container only and in a cool, well-ventilated dry place above the minimum storage temperature.
Minimum Storage Temperature:	32°F
Other Precautions:	Consult Federal, state and local laws and regulations pertaining to storage.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION			
Exposure Guidelines			
Component:	OSHA PEL	ACGIH TLV	NIOSH REL
Manganese compounds (as Mn)	5 mg/m ³	0.2 mg/m ³ (resp.) 0.1 mg/m ³ (IHL)	1 mg/m ³ (TWA) 3 mg/m ³ (ST)
Respiratory Protection: For most well-ventilated conditions, no respiratory protection should be needed. If used in areas where ventilation is inadequate or if a pre-existing respiratory condition exists, use a NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates.			
Engineering Controls: Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.			
Protective Gloves: Wear chemically protective gloves to prevent exposure to skin.			
Eye Protection: Wear chemical goggles or safety glasses and full face shield. Contact lenses are not protective eye devices. An emergency eyewash or water supply should be readily accessible to the work area.			
Other Protective Clothing or Equipment: Wear long-sleeve shirt, long pants and shoes plus socks to prevent skin contact.			
Work/Hygienic Practices: Never eat, drink, nor use tobacco in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.			

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES			
Physical State:	Liquid	Specific Gravity (H₂O=1):	1.16 (typical)
Vapor Pressure (mm Hg):	Not determined	Density (lbs/gallon):	9.7 lbs/gallon (typical)
Vapor Density (Air=1):	Not determined	Melting Point/Freezing Point:	Not determined
Solubility in Water (wt %):	100%	Boiling Point/Range:	Not determined
Viscosity:	Not determined	pH:	2.2
Appearance and odor:	Pink liquid	Flash Point:	Not determined

SECTION 10: STABILITY AND REACTIVITY
Reactivity: None known
Chemical Stability: Product is stable at ambient temperature and pressure, under normal storage and handling conditions.
Possibility of Hazardous Reactions: Will not occur.
Conditions to Avoid: Extreme temperatures and contact with incompatible materials.
Incompatible Materials: Strong oxidizing agents.
Hazardous Decomposition Products: No hazardous decomposition products are known.

SECTION 11: TOXICOLOGICAL INFORMATION	
ACUTE TOXICITY	
Eye Effects:	Causes serious eye irritation.
Skin Effects:	Causes serious skin irritation. Estimated LD50 >5,000 mg/kg.
Acute Inhalation Effects:	Estimated LC50 >5.0 mg/L (4 hr)
Acute Oral Effects:	May irritation of the mouth and esophagus. Estimated LD50 >10,000 mg/kg
Specific Target Organ Toxicity:	None
CHRONIC TOXICITY	
Chronic Effects:	None known
Carcinogenicity:	None known
Mutagenicity:	None known
Teratogenicity:	None known
Reproductive Toxicity:	None known
POTENTIAL HEALTH EFFECTS:	
Eyes: Causes serious eye irritation.	
Skin: Causes serious skin irritation.	
Inhalation: May cause irritation of the upper respiratory tract.	
Ingestion: Harmful if swallowed. May cause irritation of the mouth and esophagus.	

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SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Not determined

ECOTOXICITY DATA:

Fish Acute and Prolonged Toxicity: Not determined
Aquatic Invertebrate Acute Toxicity: Not determined
Aquatic Plant Toxicity: Not determined
Bird Acute and Prolonged Toxicity: Not determined
Honeybee Toxicity: Not determined

ENVIRONMENTAL EFFECTS:

Soil Absorption/Mobility: Not determined
Persistence and degradability: Not determined
Bioaccumulative Potential: Not determined
Other adverse effects: Not determined

SECTION 13: DISPOSAL CONSIDERATIONS

Waste: Dispose of in accordance with applicable Federal, state and local laws and regulations.
Container: Triple rinse and recycle the container or dispose of in accordance with Federal, state and local laws and regulations.
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

DOT: This product is not regulated by the U.S. Department of Transportation as a hazardous material for ground shipment.
(Ground)

IMDG: This product is not regulated by the IMDG code as a hazardous material for shipment by sea.
(Sea)

IATA: This product is not regulated by the IATA as a hazardous material for air shipment.
(Air)

TDG: Not determined
(Canada)

SECTION 15: REGULATORY INFORMATION

TSCA Inventory: All components are either listed or exempt from listing on the TSCA inventory.

SARA Title III Information:

Section 302 - Extremely hazardous substances: None listed

Section 311/312 – Hazard Categories: Immediate (Acute)

Section 313 – The following chemicals are subject to the reporting requirements of Section 313 of Title III, Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:

Manganese compounds (<17.5%)

CERCLA - This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):

Manganese compounds are considered CERCLA hazardous substances though no RQ has been established.

California Proposition 65: This product does not contain any chemicals known to the state of California to cause cancer and/or reproductive harm.

U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI):

Chemical Name	CAS #	State(s)
	7785-87-7	
Manganese compounds	10024-66-5	MA, MN, NJ, PA
	68015-77-0	

Canadian Domestic Substances List: Not determined

WHMIS Classification: This product is not approved for use in Canada. WHMIS classification is not determined.

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SECTION 16: OTHER

Disclaimer: The information presented herein is based on available data from reliable sources and is correct to the best of WinField Solutions' knowledge. WinField Solutions, LLC makes no warranty, express nor implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

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