WINFIELD UNITED

Max-In® Manganese Four HW

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: Max-In® Manganese Four HW
EPA Registration #: Exempt
Product ID/Unity #: 10123920, 10123922, 10127986, 10136118
Common Name: Liquid manganese fertilizer
Chemical Description: Manganese EDTA
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:	MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs)
WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	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: Light tan to light pink liquid with a light soapy odor. May cause mild and temporary skin and eye irritation. Based on currently available data, this product does not meet the regulatory definition of a hazardous chemical. However, good industrial hygiene practices should be used in handling the product.

POTENTIAL HEALTH EFFECTS:
Eyes: May cause mild but reversible eye irritation.
Skin: May cause mild but reversible skin irritation.
Inhalation: May cause minor irritation of the upper respiratory tract.
Ingestion: May cause minor irritation of the digestive tract.
Preexisting Conditions: None known
Chronic Health Effects: None known

Carcinogenicity NTP: Not listed IARC: Not listed OSHA: Not listed

OSHA HCS 2012 CLASSIFICATION: This product does not meet the definition of a hazardous chemical under OSHA's Hazard Communication Standard.

SIGNAL WORD: CAUTION

HAZARD STATEMENTS:
None required

Percent of product with unknown toxicity: 0.05%

PRECAUTIONARY STATEMENTS:
Prevention: See Section 8 for personal protective equipment.
Response: See Section 4 for first aid information.
Storage: See Section 7 for storage information.
Disposal: See Section 13 for disposal information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS		
Ingredient	% (wt)	CAS Reg. #
Manganese dipotassium EDTA	29.0 – 31.0%	68015-77-0
*Ingredients not specifically listed are non-hazardous and 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 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 if 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.

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Carbon dioxide, dry chemical, water spray or foam

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: Asphyxiates such as carbon monoxide may result from combustion. Manganese and nitrogen oxides may form as well.

Unusual Fire and Explosion Hazards: Closed containers may explode from vapor expansion in high heat.

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. Copper or any of its alloys (brass or bronze) should never be used in any chelate handling system.

Storage: Store in cool, dry areas away from children, food and feed products in an area away from incompatible substances. Ensure that storage area is secured. Protect packaging from physical damage. Protect from exposure to fire. Maintain product above minimum storage temperature. Store this product in stainless steel, fiberglass, polyethylene, or certain other plastic materials. Aluminum and mild steel tanks are not recommended for storage of this product.

Minimum Storage Temperature: 40°F

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component:	OSHA PEL	ACGIH TLV	NIOSH REL
Manganese compounds	5 mg/m3		

Respiratory Protection: If conditions are poorly ventilated or exceed the established limits, 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: While not expected to cause skin irritation, the use of chemically protective gloves is recommended to prevent against skin contact.

Eye Protection: While not expected to cause eye irritation, the use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

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 (H_2O=1):**	1.215 (typical)
Vapor Pressure (mm Hg):	Not determined	**Density (lbs/gallon):**	10.14 lbs/gallon (typical)
Vapor Density (Air=1):	Not determined	**Melting Point/Freezing Point:**	Not determined
Solubility in Water (wt %):	Soluble	**Boiling Point/Range:**	Not determined
Viscosity:	Not determined	**pH:**	4.0 – 5.0
Appearance and odor:	Light tan to light pink liquid with a light soapy odor.	**Flash Point:**	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Over a period of time, the EDTA in this product could be corrosive to copper and its alloys (brass and bronze), aluminum and mild steel.

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: Excessive heat

Incompatible Materials: Strong bases and acids, copper and its alloys (brass and bronze), aluminum and mild steel.

Hazardous Decomposition Products: Asphyxiates such as carbon monoxide may result from combustion. Manganese and nitrogen oxides may form as well.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Eye Effects:	May cause mild but temporary eye irritation.
Skin Effects:	Estimated LD50 > 5,000 mg/kg; May cause mild but temporary skin irritation.
Acute Inhalation Effects:	No available LC50 value for classification but based upon component information, this product is not anticipated to be toxic by inhalation.
Acute Oral Effects:	Estimated LD50 >5,500 mg/kg
Specific Target Organ Toxicity:	None known

CHRONIC TOXICITY

Chronic Effects:	None known
Carcinogenicity:	No component is anticipated to have carcinogenic effects.
Mutagenicity:	No component is anticipated to have mutagenic effects.
Teratogenicity:	No component is anticipated to have teratogenic effects.
Reproductive Toxicity:	No component is anticipated to have effects on the reproductive system.

Continued on next page

POTENTIAL HEALTH EFFECTS:

Eyes: May cause mild but reversible eye irritation.
Skin: May cause mild but reversible skin irritation.
Inhalation: May cause minor irritation of the upper respiratory tract.
Ingestion: May cause minor irritation of the digestive tract.

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: (Ground)	This product is not regulated by the U.S. Department of Transportation as a hazardous material for ground shipment.
IMDG: (Sea)	Not determined
IATA: (Air)	Not determined
TDG: (Canada)	Not determined

SECTION 15: REGULATORY INFORMATION

TSCA Inventory: All components are 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: None
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:
None listed

CERCLA - This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
None listed

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

Continued on next page

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

Chemical Name	CAS #	State(s)
Manganese dipotassium EDTA (reportable as manganese)	68015-77-0	MA, MN, NJ, PA

Canadian Domestic Substances List: All components are listed on the DSL.

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

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.

Revision Date: July 18, 2019 Supersedes document dated: September 3, 2013
Sections Revised: All