

SAFETY DATA SHEET

KEYLATE MANGANESE

1. Product and Company Identification

Product Code:	Z-KEYMN	
Product Name:	KEYLATE MANGANESE	
Trade Name:	KEYLATE MANGANESE	
Company Name:	Stoller 9090 Katy Freeway Suite 400 Houston, TX 77024	Phone Number: 1 (713)461-1493
Web site address:	www.stollerusa.com	
Email address:	compliance@stollerusa.com	
Emergency Contact:	CHEMTREC, In the US and Canada call CHEMTREC, From other countries call	1 (800)424-9300 +1 (703)527-3887
Information:		1 (800)539-5283
Intended Use:	For agricultural use only	
Synonyms:	Chelated micronutrient solution	

2. Hazards Identification

Skin Corrosion, Category 1B
Serious Eye Damage, Category 1



GHS Signal Word:	Danger
GHS Hazard Phrases:	H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage.
GHS Precautionary Phrases:	P260 - Do not breathe dust/fume/gas/mist/vapors/spray. P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
GHS Response Phrases:	P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor/physician. P321 - Specific treatment see ... on this label. P363 - Wash contaminated clothing before reuse.
GHS Storage and Disposal Phrases:	P405 - Store locked up. P501 - Dispose of contents/container to permitted waste facility.
Potential Health Effects (Acute and Chronic):	Acute: Depending on the duration of contact, overexposure can irritate the eyes, skin, mucous membranes and any other exposed tissue. Chronic: Expected toxicity hazard: slight Expected toxicity hazard: slight
Inhalation:	Prolonged exposure to low concentrations of vapors may cause irritation to throat and upper respiratory tract, headache, nausea, dizziness, and even unconsciousness.
Skin Contact:	May be harmful if absorbed through the skin. Prolonged and/or repeated contact may cause irritation and/or dermatitis.
Eye Contact:	Contact with product may cause redness, slight to severe eye irritation.
Ingestion:	The toxicological properties of this substance have not been fully investigated.

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3. Composition/Information on Ingredients

CAS #	Components (Chemical Name)	Concentration	RTECS #
2222021-23-8	Manganese EAHP	<35.0 %	NA
141-43-5	Ethanol, 2-Amino-	< 7.0 %	KJ5775000

4. First Aid Measures

Emergency and First Aid Procedures:	Victims of severe exposure to chemicals must be taken to health providing centers for medical attention. Always bring with victim a copy of label and SDS of product to health professional.
In Case of Inhalation:	Remove from exposure and move to fresh air immediately. Get medical aid.
In Case of Skin Contact:	Wipe off product and immediately wash affected area with abundant soap and water. Remove contaminated clothing taking care not to impregnate eyes. Seek medical attention if irritation occurs. Wash clothing before reuse.
In Case of Eye Contact:	Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
In Case of Ingestion:	Consult a physician.
Note to Physician:	Treat symptomatically and supportively.

5. Fire Fighting Measures

Flash Pt:	N.A.
Explosive Limits:	LEL: N.A. UEL: N.A.
Autoignition Pt:	N.A.
Suitable Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.
Unsuitable Extinguishing Media:	None known.
Fire Fighting Instructions:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Flammable Properties and Hazards:	Toxic fumes under fire conditions.
Hazardous Combustion Products:	None known.

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures:	In case of a large spill, protect people by clearing and isolating the affected area. Such releases should be responded to by trained personnel using pre-planned procedures. In the event of an incidental release, minimum Personal Protective Equipment must be worn: latex or rubber gloves and rubber boots, goggles or full face-shield and coveralls or long-sleeved shirt and pants.
Environmental Precautions:	Do not allow to enter drains or waterways.
Steps To Be Taken In Case Material Is Released Or Spilled:	It is necessary to contain the spill into the smallest area possible by diking, scooping, etc., and recover liquid into an appropriate container, labeling it accordingly. If product is clean, use it as intended, following original label directions; should it get contaminated, salvage for proper disposal as waste. Absorb residual product onto dry carrier such as dirt, sand or any other absorbent material, then put in covered, labeled containers and dispose of as dry waste in accordance with Federal, State and Local waste disposal regulations.

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7. Handling and Storage

Precautions To Be Taken in Handling: Use with adequate ventilation. Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, or clothing. Avoid ingestion and inhalation. Empty containers may contain residual liquid or vapors and therefore should be handled the same as full containers.

Precautions To Be Taken in Storing: Inspect all incoming containers before storage to ensure all are properly labeled and not damaged. Keep containers tightly closed when not in use. Store in a cool, dry place, away from direct sunlight, sources of intense heat or where freezing is possible. Store away from food, feed, clothing materials and living quarters. Whenever possible, place chemicals on secondary containers or diked area. Store a maximum of three pails high; do not stack pallets. Store Keylate Micronutrients in fiberglass, polyethylene or polyolefin.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
2222021-23-8	Manganese EAHP	No data.	No data.	No data.
141-43-5	Ethanol, 2-Amino-	PEL: 3 ppm	No data.	No data.

Recommended Exposure Limits: No occupational exposure limits have been established for this mixture.

Respiratory Equipment (Specify Type): A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Eye Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Protective Gloves: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Other Protective Clothing: Long-sleeved shirt, long pants and protective shoes should be worn as a good safety practice. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear long sleeve shirt, long pants, and protective shoes with socks.

Engineering Controls (Ventilation etc.): General ventilation is usually adequate. Local exhaust should be used if needed for safe, comfortable working conditions. An eye bath and washing facilities should be readily available.

Work/Hygienic/Maintenance Practices: Handle in accordance with good industrial hygiene and safety practice. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove all dirty or contaminated clothing and wash it before reusing, as well as any other PPE.

Environmental Exposure Controls: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment wash water.

9. Physical and Chemical Properties

Physical States: Gas Liquid Solid

Appearance and Odor: Clear, brown color.
Pleasant, characteristic odor.

pH: 9.0 - 11.0

Melting Point: No data.

Boiling Point: No data.

Flash Pt: N.A.

Evaporation Rate: N.E.

Flammability (solid, gas): Material will not burn.

Explosive Limits: LEL: N.A. UEL: N.A.

Vapor Pressure (vs. Air or mm Hg): N.E.

Vapor Density (vs. Air = 1): N.E.

Specific Gravity (Water = 1): 1.18 - 1.22

Density: ~ 10.0 LB/GA

Solubility in Water: Soluble

Saturated Vapor Concentration: N.E.

Octanol/Water Partition Coefficient: N.E.

Autoignition Pt: N.A.

Decomposition Temperature: N.E.

Viscosity: N.E.

Information with regard to primary physical hazard:

10. Stability and Reactivity

Reactivity: N.A.

Stability: Unstable Stable

Conditions To Avoid - Instability: Stable under normal condition, but avoid extreme heat and contact with incompatible materials.

Incompatibility - Materials To Avoid: Strong oxidizing agents.

Hazardous Decomposition or Byproducts: Toxic fumes under fire conditions.

Possibility of Hazardous Reactions: Will occur Will not occur

Conditions To Avoid - Hazardous Reactions: None known.

11. Toxicological Information

Toxicological Information:	Mutagenicity: This product has not been investigated for mutagenic effects. Embryotoxicity: This product has not been investigated for embryotoxic effects. Teratogenicity: This product has not been investigated for teratogenic effects. Reproductive Toxicity: This product has not been investigated for toxic reproductive effects.
Irritation or Corrosion:	No data available.
Symptoms related to Toxicological Characteristics:	No data available.
Sensitization:	The sensitizing properties of this product have not been thoroughly investigated.
Chronic Toxicological Effects:	The toxicological properties of this material have not been fully investigated.
Carcinogenicity/Other Information:	The carcinogenic properties of this product have not been thoroughly investigated. The components of this product are not listed as a carcinogenic by CPDB, IARC, NTP, OSHA, CAL/OSHA and ACGIH.
Carcinogenicity:	NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

General Ecological Information:	The available data on this material does not indicate any undue hazard to the environment under anticipated use and storage. All work practices must be aimed at eliminating environmental contamination. Any waste due to spillage or leakage should be contained and disposed of accordingly, see above under Section 6 "Accidental Release Measures." Due to its nutritional nature, may cause eutrophication if discharged in bodies of water.
Results of PBT and vPvB assessment:	No data available.
Persistence and Degradability:	No data available.
Bioaccumulative Potential:	No data available.
Mobility in Soil:	No data available.

13. Disposal Considerations

Waste Disposal Method:	This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local waste regulatory authority. Avoid contaminating water by disposal of equipment wash waters or other product wastes. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
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14. Transport Information

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Revision: 05/07/2023
Supersedes Revision: 04/30/2023**LAND TRANSPORT (US DOT):****DOT Proper Shipping Name:** Not Regulated. Trade Name: KEYLATE MANGANESE**DOT Hazard Class:****UN/NA Number:****MARINE TRANSPORT (IMDG/IMO):****IMDG/IMO Shipping Name:** Not Regulated. Trade Name: KEYLATE MANGANESE**UN Number:****Packing Group:****Hazard Class:****IMDG MFAG Number:** N/A**AIR TRANSPORT (ICAO/IATA):****ICAO/IATA Shipping Name:** Not Regulated. Trade Name: KEYLATE MANGANESE**UN Number:****Packing Group:****Hazard Class:****Additional Transport Information:**

Placards / Markings: N.A.

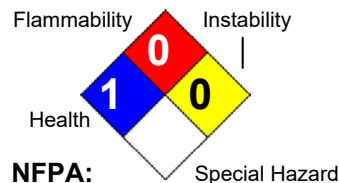
Emergency Response Guide Number: N.A.

Reportable Quantity: N.A.

15. Regulatory Information

Regulatory Information: TSCA Inventory: In compliance with inventory requirements for commercial purposes.

16. Other Information

Revision Date: 05/07/2023**Previous revision:** 04/30/2023**Hazard Rating System:****Additional Information About This Product:** No data available.**This Product:****Company Policy or Disclaimer:**

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