

SAFETY DATA SHEET

MICRO-PLUS ZINC

1. Product and Company Identification

Product Code: Z-MPZN
Product Name: MICRO-PLUS ZINC
Trade Name: MICRO-PLUS ZINC
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 1 (800)424-9300
CHEMTREC, From other countries call +1 (703)527-3887
Information: 1 (800)539-5283
Intended Use: For agricultural use only
Synonyms: Chelated micronutrient solution

2. Hazards Identification

Acute Toxicity: Oral, Category 4
Serious Eye Damage/Eye Irritation, Category 1
Skin Corrosion/Irritation, Category 1C
Aquatic Toxicity (Acute), Category 1
Aquatic Toxicity (Chronic), Category 1



GHS Signal Word: **Danger**

GHS Hazard Phrases: H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.

GHS Precautionary Phrases: P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases: P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P330 - Rinse mouth.
P363 - Wash contaminated clothing before reuse.
P391 - Collect spillage.

GHS Storage and Disposal P405 - Store locked up.

Phrases:	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
Inhalation:	Prolonged exposure to low concentrations of vapors may cause sore throat, headache, nausea, dizziness and even unconsciousness.
Skin Contact:	May cause discomfort, skin irritation or rash unless treated promptly.
Eye Contact:	Contact with product may cause redness, slight to severe eye irritation.
Ingestion:	May cause malaise, nausea, stomach cramps, burning sensation in stomach. Large doses may cause gastrointestinal damage.

3. Composition/Information on Ingredients

CAS #	Components (Chemical Name)	Concentration	RTECS #
7646-85-7	Zinc chloride	<25.0 %	ZH1400000

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. If breathing is difficult, give oxygen. Call a physician if no improvement on patient condition.
In Case of Skin Contact:	Remove product and immediately flush affected area with water for 15 minutes. Remove contaminated clothing, taking care not to impregnate eyes. Seek medical attention if irritation occurs.
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:	Immediately call a poison control center or physician for treatment advice. Wash mouth out with water. Never give anything by mouth to an unconscious person.
Signs and Symptoms Of Exposure:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
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 chemical foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media:	None known.
Fire Fighting Instructions:	It is recommended that firefighters wear self-contained breathing apparatus and full protective equipment, like chemical resistant clothing.
Flammable Properties and Hazards:	None known.
Hazardous Combustion Products:	Toxic fumes under fire conditions. Zinc compounds, chlorhydric acid (hydrogen chloride) and chlorine.

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures: In case of a large spill, clear the affected area and protect people. 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 the product 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 collect in covered, labeled containers and dispose of as dry waste in accordance with Federal, State, and Local waste disposal regulations.

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.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7646-85-7	Zinc chloride	PEL: 1 mg/m3	TLV: 1 mg/m3 STEL: 2 mg/m3	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: This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. 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 Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations

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Supersedes Revision: 07/10/2020

(Ventilation etc.):	and safety showers are close to the workstation location.
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. Wash clothing and other PPE thoroughly after handling this product before wearing again.
Environmental Exposure Controls:	If spilling or leakage occurs, contain and clean if safe to do so. Prevent from reaching drains, sewer, or waterways. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark.

9. Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid
Appearance and Odor:	Clear to light yellow color. Odorless.
pH:	~ 3.2 - 5.2
Freezing Point:	NE
Boiling Point:	NE
Flash Pt:	N.A.
Evaporation Rate:	N.E.
Flammability (solid, gas):	Product is non-flammable.
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):	~ 1.23 - 1.27 N.E.
Density:	~ 10.5 LB/GA
Solubility in Water:	Soluble
Saturated Vapor Concentration:	N.E.
Octanol/Water Partition Coefficient:	N.E.
Autoignition Pt:	N.A.
Decomposition Temperature:	NE
Viscosity:	N.E.

Information with regard to primary physical hazard:

10. Stability and Reactivity

Reactivity:	Stable under normal condition, but avoid contact with incompatible materials.
Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	Stable under normal condition, but avoid extreme heat and contact with incompatible materials.
Incompatibility - Materials To Avoid:	Potassium, strong bases and strong oxidizing agents.
Hazardous Decomposition or Byproducts:	Zinc compounds, chlorhydric acid (hydrogen chloride) and chlorine.

Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	None known.

11. Toxicological Information

Toxicological Information:	<p>Mutagenicity: This product has not been investigated for mutagenic effects.</p> <p>Embryotoxicity: This product has not been investigated for embryotoxic effects.</p> <p>Teratogenicity: This product has not been investigated for teratogenic effects.</p> <p>Reproductive Toxicity: This product has not been investigated for toxic reproductive effects.</p> <p>CAS# 7646-85-7: Acute toxicity, LD50, Oral, Rat, 350.0 MG/KG. Result: Gastrointestinal:Nausea or vomiting. Blood:Change in clotting factors. ; Food Research., For publisher information, see JFDSAZ, Champaign, IL, Vol/p/yr: 7,313, 1942</p>
Irritation or Corrosion:	Causes eye, skin, and respiratory tract irritation.
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:	No environmental impact studies have been performed with this product. The available data on this plant nutrient material does not indicate any undue hazard to the environment under anticipated use and storage. All work practices must be aimed at preventing 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:	<p>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. Dispose of empty container in a sanitary landfill or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Avoid contaminating water by disposal of equipment wash waters or other product wastes.</p> <p>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.</p>
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14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Zinc chloride, solution. CLASS 8, PG III. Marine Pollutant.

DOT Hazard Class: 8 CORROSIVE

UN/NA Number: UN1840

Packing Group: III



LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Zinc chloride, solution. CLASS 8, PG III. Marine Pollutant.

UN Number: 1840

Packing Group: III

Hazard Class: 8 - CORROSIVE

TDG Classification:

LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Zinc chloride, solution. CLASS 8, PG III. Marine Pollutant.

UN Number: 1840

III

Hazard Class: 8 - CORROSIVE

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Zinc chloride, solution. CLASS 8, PG III. Marine Pollutant.

UN Number: |

Packing Group: III

Hazard Class: 8 - CORROSIVE

IMDG MFAG Number:

IMDG EMS Page:

Marine Pollutant: Yes

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Zinc chloride, solution. CLASS 8, PG III. Marine Pollutant.

UN Number: 1840

Packing Group: III

Hazard Class: 8 - CORROSIVE

Additional Transport Information: Placards / Markings: N.A.

Emergency Response Guide Number: N.A.

Reportable Quantity: N.A.

15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

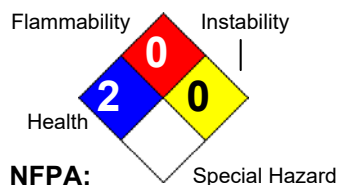
CAS #	Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7646-85-7	Zinc chloride	No	Yes NA	Yes-Cat. N982

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

16. Other Information

Revision Date: 01/24/2022

Hazard Rating System:



Additional Information About No data available.

This Product:

Company Policy or

Disclaimer:

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