

This SDS complies with the Canadian Hazardous Products Regulations of 2015

1. Product and Company Identification

Product Code:	Z-MPSS		
Product Name:	MICRO PLUS SUPER START		
Company Name:	Stoller Enterprises 284 Industrial Drive Regina, SK,		
Web site address:	http://stollerenterprises.ca/		
Emergency Contact:	CHEMTREC, In the US and Canada call	1 (800)424-9300	
	CHEMTREC, From other countries call	+1 (703)527-3887	
Information:	For agricultural use only	1 (800)539-5283	

2. Hazards Identification

Acute Toxicity: Oral, Category 4
Skin Corrosion/Irritation, Category 1B
Aquatic Toxicity (Acute), Category 1
Aquatic Toxicity (Chronic), Category 1
Serious Eye Damage/Eye Irritation, Category 2



GHS Signal Word:	Danger
GHS Hazard Phrases:	H302 - Harmful if swallowed. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H400 - Very toxic to aquatic life. H410 - Very toxic to aquatic life with long lasting effects.
GHS Precaution Phrases:	P260 - Do not breathe mist/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/, ace 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 - Give 2-3 glasses of water if victim is conscious and alert. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. Obtain medical attention immediately if ingested. Do not leave victim unattended. Wear impervious gloves while decontaminating skin and hair. P337+313 - If eye irritation persists, get medical advice/attention. P363 - Wash contaminated clothing before reuse. P391 - Collect spillage.
GHS Storage and Disposal	P501 - Dispose of contents/container to treatment at a permitted facility or as advised by

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Phrases:	your local regulatory authority.
Potential Health Effects (Acute and Chronic):	Hazards not otherwise classified (HNOC) or not covered by GHS: None. Chronic: May cause liver and kidney damage.
Inhalation:	Causes chemical burns to the respiratory tract. May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract. May cause respiratory tract irritation.
Skin Contact:	Causes skin burns. May cause skin irritation. May be harmful if absorbed through the skin.
Eye Contact:	Causes eye burns. May cause eye irritation. Exposure to solid may cause pain and redness.
Ingestion:	Harmful if swallowed. Causes gastrointestinal tract burns. May cause irritation of the digestive tract.

3. Composition/Information on Ingredients

CAS #	Components (Chemical Name)	Concentration	
7646-85-7	Zinc chloride	< 8.0 %	
7773-01-5	Manganese chloride	< 5.0 %	
7758-89-6	Copper(I) chloride	< 4.0 %	
7758-94-3	Ferrous chloride	< 1.5 %	

4. First Aid Measures

Emergency and First Aid Procedures:	Consult a physician. Show this safety data sheet to the doctor in attendance.
In Case of Inhalation:	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical aid. Remove from exposure and move to fresh air immediately. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Consult a physician.
In Case of Skin Contact:	Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In case of skin contact, flush with copious amounts of water for at least 15 minutes. Call a physician. Get medical aid. Wash off with soap and plenty of water. Consult a physician.
In Case of Eye Contact:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Assure adequate flushing by separating the eyelids with fingers. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
In Case of Ingestion:	Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If swallowed, wash out mouth with water provided person is conscious. Call a poison control center. Consult a physician.
Signs and Symptoms Of Exposure:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Men exposed to manganese dusts showed a decrease in fertility. Chronic manganese poisoning primarily involves the central nervous system. Early symptoms include languor, sleepiness and weakness in the legs. The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed:	No data available.

Note to Physician: Treat symptomatically and supportively.

5. Fire Fighting Measures

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

Suitable Extinguishing Media: Suitable: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

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. Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Use extinguishing media appropriate to surrounding fire conditions. Further information:

Flammable Properties and Hazards: Hydrogen chloride gas.

Hazardous Combustion Products: No data available.

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental Precautions: If spilling or leakage occurs, contain and clean if safe to do so. Prevent from reaching drains, sewer, or waterways. Do not let product enter drains.

Steps To Be Taken In Case Material Is Released Or Spilled: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Provide ventilation.

Do not let this chemical enter the environment. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section).

Keep in suitable, closed containers for disposal.

7. Handling and Storage

Precautions To Be Taken in Handling: Do not ingest or inhale. Avoid contact with eyes, skin, or clothing. Avoid contact with skin and eyes.

Precautions To Be Taken in Storing: Store in a tightly closed container. Do not store in metal containers. Suitable: Keep tightly closed.

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.
7773-01-5	Manganese chloride	No data.	TLV: 0.2 mg/m ³ as Mn	No data.
7758-89-6	Copper(I) chloride	No data.	No data.	No data.
7758-94-3	Ferrous chloride	No data.	TLV: 1 mg/m ³ as Fe	No data.

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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. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
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:	Hand: Compatible chemical-resistant gloves. Eyes: Wash and dry hands.
Other Protective Clothing:	Wear appropriate protective clothing to prevent skin exposure. Complete suit protecting against chemicals.
Engineering Controls (Ventilation etc.):	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Handle in accordance with good industrial hygiene and safety practice.
Work/Hygienic/Maintenance Practices:	Wash thoroughly after handling.
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 let product enter drains. Discharge into the environment must be avoided.

9. Physical and Chemical Properties

Physical States:	[] Gas	[X] Liquid	[] Solid
Appearance and Odor:	No data available.		
pH:	No data.		
Melting Point:	No data.		
Boiling Point:	No data.		
Flash Pt:	No data.		
Evaporation Rate:	No data.		
Flammability (solid, gas):	No data available.		
Explosive Limits:	LEL: No data.	UEL: No data.	
Vapor Pressure (vs. Air or mm Hg):	No data.		
Vapor Density (vs. Air = 1):	No data.		
Specific Gravity (Water = 1):	1.05 - 1.25		
Density:	1.05 - 1.25 LG/M3		
Solubility in Water:	No data.		
Octanol/Water Partition Coefficient:	No data.		
Autoignition Pt:	No data.		
Decomposition Temperature:	No data.		
Viscosity:	No data.		

10. Stability and Reactivity

Reactivity: No data available.

Stability: Unstable [] Stable [X]

Conditions To Avoid - Instability: Toxic fumes may be generated under fire conditions or by contact with incompatible materials.

Incompatibility - Materials To Avoid: Strong oxidizing agents.

Hazardous Decomposition or Byproducts: Hydrogen chloride gas.

Possibility of Hazardous Reactions: Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Reactions: No data available.

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.

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

CAS# 7758-94-3: Acute toxicity, LD50, Intraperitoneal, Mouse, 59.00 MG/KG. Result: Behavioral: Changes in psychophysiological tests. ; Naunyn-Schmiedeberg's Archiv fuer Experimentelle Pathologie und Pharmakologie., Vol/p/yr: 244,17, 1962

Irritation or Corrosion: No data available.

Sensitization: No data available.

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.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

General Ecological Information: The available data on the ingredients of this plant nutrient product does not indicate any undue hazard to the environment under anticipated use and storage. No environmental impact studies have been performed with this product. Any waste due to spillage or leakage should be contained and disposed of accordingly, see Section 6 "Accidental Release Measures." Due to its nutritional nature, may cause eutrophication if discharged in bodies of water. Due to its nutrient value, may contribute to eutrophication in bodies of water.

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. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Avoid contaminating water by disposal of equipment wash waters or other product wastes. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Contact a licensed professional waste disposal service to dispose of this material.

14. Transport Information

LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Trade Name: MICRO PLUS SUPER STARTER

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

Excepted Quantities: Class E1.

UN Number:

2802

Packing Group:

III

Hazard Class:

8 - CORROSIVE

TDG Classification:

15. Regulatory Information

Canadian WHMIS Classification:



CLASS E: Corrosive Materials

CLASS D, DIVISION 1, SUBDIVISION B: Toxic Materials (moderate LD50 values)

16. Other Information

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Additional Information About This Product: No data available.

This Product:

Company Policy or

Disclaimer:

Stoller believes the information contained in this Safety Data Sheet is accurate based on the information provided by reputable suppliers of our raw materials. However, Stoller does not guarantee their accuracy or completeness. The information contained herein is furnished without warranty of any kind, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for any particular purpose. Users should consider these data only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. Stoller assumes no

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