



Safety Data Sheet

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Version: 4.01

1. IDENTIFICATION

Product identifier

Product Name: Micromax® Granular
Product Number(s): G90505
Formula No.: S10583

Recommended use of the chemical and restrictions on use

Restricted to professional users

Company:

Everris NA Inc.
P.O. Box 3310
Dublin, OH 43016

24-HOUR EMERGENCY TELEPHONE NUMBERS:

CHEMTREC (U.S.): 1-800-424-9300
CHEMTREC (International): 1-703-527-3887
Non-Emergency Calls: 1-800-492-8255

2. HAZARD(S) IDENTIFICATION

Acute toxicity - Oral	Category 4
Skin Corrosion or Irritation	Category 2
Serious eye damage/eye irritation	Category 1
Reproductive Toxicity	Category 1B
Specific Target Organ Toxicity (Repeated Exposure)	Category 2

Label Elements:

Danger

Hazard Statements:

Harmful if swallowed
Causes skin irritation
Causes serious eye damage
May damage fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure



Appearance: Granules

Physical state Solid

Odor: Fertilizer

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor

IF ON SKIN: Wash with plenty of water and soap

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash it before reuse

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC):

Not applied

Other Information

Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Unknown Acute Toxicity: 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%	Trade Secret
Iron sulphate; FeSO ₄	7720-78-7	50 - 60%	*
Manganese sulfate monohydrate; MnSO ₄ +1H ₂ O	10034-96-5	5 - 10%	*
Copper sulphate+5H ₂ O; CuSO ₄ +5H ₂ O	7758-99-8	1 - 5%	*
Zinc sulphate+1H ₂ O; ZnSO ₄ +1H ₂ O	7446-19-7	1 - 5%	*
Disodium tetraborate pentahydrate	12179-04-3	0.1 - 1%	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

Description of first aid measures

Eye Contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

<u>Suitable Extinguishing Media:</u>	Carbon dioxide (CO ₂). Foam. Water spray. Dry powder.
<u>Unsuitable Extinguishing Media:</u>	High volume water jet.
<u>Specific hazards:</u>	Dust may form explosive mixture in air.
<u>Hazardous Combustion Products</u>	Toxic fumes may be produced.
<u>Explosion Data:</u>	
Sensitivity to Mechanical Impact:	no data available.
Sensitivity to Static Discharge:	no data available.
<u>Special Protective Equipment for Firefighters:</u>	In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:	Avoid dust formation. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not inhale dust/mist.
Environmental precautions:	Prevent product from entering drains. Avoid subsoil penetration.

Methods and material for containment and cleaning up

Methods for containment:	Vacuum or sweep up material and place in a disposal container.
Methods for Cleanup:	Take up mechanically and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling: Avoid container breakage. Avoid inhalation or contact with skin, eyes, or clothing. Keep out of reach of children and pets. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling. Do not contaminate water while cleaning equipment. this product is toxic to fish. Keep out of lakes, streams or ponds. Use proper protective equipment to minimize exposure.

Conditions for safe storage, including any incompatibilities

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	ACGIH TLV	OSHA:	ACGIH:	IDLH:
Iron sulphate; FeSO ₄ 7720-78-7	-	-	1 mg/m ³ TWA	-
Manganese sulfate monohydrate; MnSO ₄ +1H ₂ O 10034-96-5	-	-	0.02 mg/m ³ TWA 0.1 mg/m ³ TWA	500 mg/m ³ IDLH Mn
Copper sulphate+5H ₂ O; CuSO ₄ +5H ₂ O 7758-99-8	-	-	1 mg/m ³ TWA	100 mg/m ³ IDLH Cu
Disodium tetraborate pentahydrate 12179-04-3	TWA: 2 mg/m ³ inhalable particulate matter	-	2 mg/m ³ TWA	-

	STEL: 6 mg/m ³ inhalable particulate matter			
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Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas. Eyewash. Showers.

Individual protection measures, such as personal protective equipment

Eye/face Protection Wear safety glasses with side shields (or goggles).

Hand Protection Impervious gloves.

Skin and body protection Wear suitable protective clothing. Impervious clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Solid
Color: tan
Appearance: Powder(s)
Odor: Fertilizer

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH:	No data available	
Melting Point/Freezing Point:	Not applicable	
Boiling Point/Range:	No data available	
Flash Point:		
Evaporation Rate:	no data available	
Flammability (solid, gas):	No data available	
Flammability Limits in Air:		
Upper Flammability Limit:	No data available	
Lower Flammability Limit:	No data available	
Vapor Pressure:	No data available	
Vapour density	No data available	
Relative density	no data available	
Solubility:	slightly soluble	
Solubility in other Solvents:	no data available	
Partition Coefficient:	no data available	
Autoignition Temperature:	No data available	
Hyphen	no data available	
Kinematic Viscosity:	No data available	
Dynamic Viscosity:	no data available	
Explosive Properties:	no data available	
Oxidizing Properties:	Not considered an oxidizer	

Other information

Softening Point: no data available
Molecular Weight: no data available
VOC content No data available
Density: no data available
Bulk density: no data available

10. STABILITY AND REACTIVITY

Reactivity:

Stable under recommended storage conditions

Chemically Stable:

Yes.

Conditions to Avoid:

Dust may form explosive mixture in air.

Materials to avoid

Strong oxidizing agents.

Hazardous Decomposition Products:

Combustion produces caustic fumes.

Possibility of Hazardous Reactions:

Poses little or no immediate hazard.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin Contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms no data available.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:

Oral LD50	535.00 mg/kg
Dermal LD50	55,928.40 mg/kg

Unknown Acute Toxicity: 0% of the mixture consists of ingredient(s) of unknown toxicity

LD50/oral: no data available

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Iron sulphate; FeSO ₄ 7720-78-7	= 319 mg/kg (Rat)	-	-
Manganese sulfate monohydrate; MnSO ₄ +1H ₂ O 10034-96-5	=2150 mg/kg (Rat)	-	> 4.45 mg/L (Rat)
Copper sulphate+5H ₂ O; CuSO ₄ +5H ₂ O 7758-99-8	= 960 mg/kg (Rat)	> 8 g/kg (Rabbit)	-
Disodium tetraborate pentahydrate 12179-04-3	= 2403 mg/kg (Rat)	-	-

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure:

Skin corrosion/irritation no data available.

Serious eye damage/eye irritation	no data available.
Respiratory or skin sensitization	no data available.
Germ Cell Mutagenicity	no data available.
Carcinogenicity	no data available.
Reproductive Toxicity	no data available.
STOT - Single Exposure	no data available.
STOT - Repeated Exposure	no data available.
Aspiration Hazard	no data available.

12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a severe marine pollutant according to DOT.

The environmental impact of this product has not been fully investigated.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Iron sulphate; FeSO ₄ 7720-78-7	-	LC50: =925mg/L (96h, Poecilia reticulata) LC50: =0.56mg/L (96h, Cyprinus carpio)	-	EC50: =152mg/L (48h, Daphnia magna) EC50: 6.15 - 9.26mg/L (48h, Daphnia magna)
Copper sulphate+5H ₂ O; CuSO ₄ +5H ₂ O 7758-99-8	-	LC50: 0.66 - 1.15mg/L (96h, Lepomis macrochirus) LC50: 0.96 - 1.8mg/L (96h, Lepomis macrochirus) LC50: 0.1478 - 0.165mg/L (96h, Oncorhynchus mykiss) LC50: 0.09 - 0.19mg/L (96h, Oncorhynchus mykiss) LC50: =0.6752mg/L (96h, Pimephales promelas)	-	EC50: 0.147 - 0.227mg/L (48h, Daphnia magna)

Persistence and Degradability:	no data available.
Bioaccumulation	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods:

Disposal of Wastes:	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging:	Do not reuse container.

14. TRANSPORT INFORMATION

The description shown may not apply to all situations. Consult 49 CFR, or appropriate dangerous goods regulations for additional description requirements (e.g. technical name) and mode-specific or quantity-specific shipping requirements.

DOT (Land)	For domestic shipments marine pollutant container mark and shipping paper entry only apply to bulk and vessel transport
DOT (AIR)	No data available
DOT (Vessel)	UN3077, Environmentally Hazardous Substance, solid, N.O.S., (copper sulfate pentahydrate), 9, PGIII, Marine Pollutant
IATA (Air)	UN3077, Environmentally Hazardous Substance, solid, N.O.S., (copper sulfate pentahydrate), 9, PGIII, Marine Pollutant
IMO/MDG (Vessel)	UN3077, Environmentally Hazardous Substance, solid, N.O.S., (copper sulfate pentahydrate), 9, PGIII, Marine Pollutant

15. REGULATORY INFORMATION

Federal Regulations:

SARA 313:

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories:

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act):

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	Clean Water Act - Priority Pollutants	Clean Water Act - Hazardous Substances
Iron sulphate; FeSO ₄ 7720-78-7	-	-	-	Present

CERCLA:

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical name	CERCLA/SARA 313	CERCLA/SARA RQ
Iron sulphate; FeSO ₄ 7720-78-7	1000 lb final RQ 454 kg final RQ	-

California Proposition 65:

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations:

State Regulations (RTK): no data available

U.S. EPA Label information:

EPA Pesticide Registration Number: Not applied

16. OTHER INFORMATION

NFPA: Health hazards 3 Flammability 2 Reactivity: 1

HMIS: Health hazards - Flammability 2 Reactivity: 1

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End of Safety Data Sheet