

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : GreenFurrow Organics MultiMix

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertilizer

1.3. Supplier

Manufacturer

MarVista Resources
 745 North Ave.
 P.O. Box 218
 Corcoran, Ca. 93212 - USA
 T 559-992-4535

1.4. Emergency telephone number

Emergency number : 24 Hour Emergency Response Chemtrec: 1-800-262-8200

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Serious eye damage/eye irritation Category 2B	H320	Causes eye irritation
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H320 - Causes eye irritation
 H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) : P260 - Do not breathe mist, spray
 P264 - Wash skin thoroughly after handling
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P314 - Get medical advice/attention if you feel unwell
 P337+P313 - If eye irritation persists: Get medical advice/attention
 P501 - Dispose of contents/container to comply with local, state, and federal regulations

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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Name	Product identifier	%	GHS-US classification
iron(II) sulfate, heptahydrate	(CAS-No.) 7782-63-0	8-11	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315
zinc sulfate, monohydrate	(CAS-No.) 7733-02-0	6-9	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
manganese(II)sulfate, monohydrate	(CAS-No.) 7785-87-7	5-8	STOT RE 2, H373 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
copper(II) sulfate, pentahydrate	(CAS-No.) 7758-99-8	<5	Acute Tox. 3 (Oral), H301 Aquatic Acute 2, H401

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Get medical advice/attention if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water.
- First-aid measures after eye contact : Rinse eyes with water as a precaution. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : If you feel unwell, seek medical advice.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/injuries after inhalation : May cause slight irritation.
- Symptoms/injuries after skin contact : May cause irritation to skin.
- Symptoms/injuries after eye contact : mild eye irritation.
- Symptoms/injuries after ingestion : May cause gastrointestinal discomfort.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Do not breathe mist, spray. Avoid breathing mist, spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8 : Exposure-controls/personal protection".

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe mist, spray. Avoid breathing mist, spray. Avoid contact with skin and eyes. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

copper(II) sulfate, pentahydrate (7758-99-8)		
NIOSH	NIOSH REL (TWA) (mg/m ³)	1 mg/m ³
iron(II) sulfate, heptahydrate (7782-63-0)		
ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
manganese(II)sulfate, monohydrate (7785-87-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.1 mg/m ³
zinc sulfate, monohydrate (7733-02-0)		
Not applicable		

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
: No data available
: No data available
- Odor threshold : No data available
- pH : 2 - 3
- Melting point : Not applicable
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Flammability (solid, gas) : Not applicable.
- Vapor pressure : No data available
- Relative vapor density at 20 °C : No data available

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Relative density	: 1.325
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

copper(II) sulfate, pentahydrate (7758-99-8)	
LD50 oral rat	300 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 482 mg/kg bodyweight; Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study; OECD 402: Acute Dermal Toxicity)
ATE US (oral)	300 mg/kg body weight

iron(II) sulfate, heptahydrate (7782-63-0)	
LD50 oral rat	1480 mg/kg (Rat)
ATE US (oral)	1480 mg/kg body weight

zinc sulfate, monohydrate (7733-02-0)	
ATE US (oral)	500 mg/kg body weight

Skin corrosion/irritation	: Not classified pH: 2 - 3
Serious eye damage/irritation	: Causes eye irritation. pH: 2 - 3
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified

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Specific target organ toxicity – repeated exposure : May cause damage to organs through prolonged or repeated exposure.

manganese(II)sulfate, monohydrate (7785-87-7)	
Specific target organ toxicity – repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/injuries after inhalation : May cause slight irritation.
Symptoms/injuries after skin contact : May cause irritation to skin.
Symptoms/injuries after eye contact : mild eye irritation.
Symptoms/injuries after ingestion : May cause gastrointestinal discomfort.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

copper(II) sulfate, pentahydrate (7758-99-8)	
LC50 fish 1	1.5 mg/l (24 h; Lepomis macrochirus; Toxicity test)
EC50 Daphnia 1	0.109 - 0.798 mg/l (48 h; Daphnia magna; Anhydrous form)
LC50 fish 2	0.17 mg/l (24 h; Salmo gairdneri (Oncorhynchus mykiss); Anhydrous form)
TLM fish 1	3.8 ppm 24 h; Salmo gairdneri (Oncorhynchus mykiss)
Threshold limit algae 1	0.01 - 0.28,72 h; Selenastrum capricornutum; Anhydrous form
Threshold limit algae 2	0.368 mg/l (72 h; Pseudokirchneriella subcapitata; Anhydrous form)

iron(II) sulfate, heptahydrate (7782-63-0)	
LC50 fish 1	925 mg/l (96 h; Poecilia reticulata)
EC50 Daphnia 1	7.2 mg/l (48 h; Daphnia magna; Metal ion)
LC50 fish 2	> 200 mg/l (48 h; Leuciscus idus)
EC50 Daphnia 2	152 mg/l (48 h; Daphnia magna; Anhydrous form)

manganese(II)sulfate, monohydrate (7785-87-7)	
LC50 fish 1	2850 mg/l (96 h; Colisa fasciatus; Anhydrous form)
EC50 Daphnia 1	8.28 mg/l (48 h; Daphnia magna; Anhydrous form)
LC50 fish 2	33.8 mg/l (96 h; Pimephales promelas; Anhydrous form)
EC50 Daphnia 2	10 mg/l (24 h; Daphnia magna; Anhydrous form)
Threshold limit algae 1	25.7 mg/l (Phaeodactylum; Anhydrous form)

zinc sulfate, monohydrate (7733-02-0)	
LC50 fish 1	1.7 mg/l (96 h; Poecilia reticulata; Anhydrous form)
EC50 Daphnia 1	0.56 mg/l (48 h; Daphnia magna; Anhydrous form)
LC50 fish 2	2.4 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Anhydrous form)
EC50 Daphnia 2	1 mg/l (24 h; Daphnia magna; Anhydrous form)

12.2. Persistence and degradability

copper(II) sulfate, pentahydrate (7758-99-8)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

iron(II) sulfate, heptahydrate (7782-63-0)	
Persistence and degradability	Biodegradability in water: no data available. Biodegradability in soil: no data available. Adsorbs into the soil.

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manganese(II)sulfate, monohydrate (7785-87-7)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

zinc sulfate, monohydrate (7733-02-0)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

copper(II) sulfate, pentahydrate (7758-99-8)	
Bioaccumulative potential	Bioaccumable.

iron(II) sulfate, heptahydrate (7782-63-0)	
Bioaccumulative potential	Not bioaccumulative.

zinc sulfate, monohydrate (7733-02-0)	
BCF fish 1	59 - 242 (Cyprinus carpio; Anhydrous form)
BCF fish 2	59 - 242 (Cyprinus carpio; Test duration: 8 weeks)
Bioaccumulative potential	Bioaccumable.

12.4. Mobility in soil

copper(II) sulfate, pentahydrate (7758-99-8)	
Ecology - soil	Toxic to flora.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Sewage disposal recommendations : Prevent liquid from entering sewers, watercourses, underground or low areas.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

TDG

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

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SECTION 15: Regulatory information

15.1. US Federal regulations

copper(II) sulfate, pentahydrate (7758-99-8)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

iron(II) sulfate, heptahydrate (7782-63-0)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

Not listed on SARA Section 313 (Specific toxic chemical listings)

CERCLA RQ

1000 lb

manganese(II)sulfate, monohydrate (7785-87-7)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

zinc sulfate, monohydrate (7733-02-0)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

Component	State or local regulations
iron(II) sulfate, heptahydrate(7782-63-0)	U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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Full text of H-phrases:

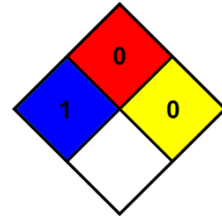
H301	Toxic if swallowed
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H320	Causes eye irritation
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

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NFPA health hazard	: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard	: 0 - Materials that will not burn.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



SDS US (GHS HazCom 2012)

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