

2 Hazards Identification

2.1 Classification of the substance or mixture *CLP Classification-Regulation (EC) No. 1272/2008[EU-GHS/CLP]*

Not a hazardous substance or mixture according to Regulation (EC) No.1272/2008.

2.2 Label elements

Labeling according to Regulation (EC) No.1272/2008

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other Hazards

None

3 Composition/Information On Ingredients

3.2 Mixture

Component		Classification	Concentration
Ferrous sulphate			
CAS No. :	7720-78-7	As Per EC Regulation 1272/2008	>=0.01 - <=0.1%
EC No. :	231-753-5	Acute Tox.oral 4; Skin Irrit. 2; Eye Irrit.	
Index-No :	026-003-00-7	2A H302; H315; H319	
Molecular Formula :	FeSO₄		

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Component		Classification	Concentration
Manganese sulpl	hate		
CAS No. :	10034-96-5	As Per EC Regulation 1272/2008	>=0.1 - <=1%
EC No. :	232-089-9	STOT RE 2; Aquatic Chronic 2 H373;	
Index-No :	025-003-00-4	H411	

Component		Classification	Concentration
Ammonium citrate			
CAS No. :	3012-65-5	As Per EC Regulation 1272/2008	>=1 - <=10%
EC No. :	221-146-3	Eye Irrit. 2A; STOT SE 3 H319; H335	

Refer Section 16 for complete statement of H codes and its classification

4 First Aid Measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse immediately with plenty of water for at least 15 minutes. Consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed No data available.

4.3 Indication of immediate medical attention and special treatment needed No data available

5 Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

No data available.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Sodium oxides, Sulphur oxides, Pottasium oxides,Oxides of phosphorous, Iron oxides, Magnesium oxides, Manganese/manganese oxides

5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary

5.4 Further information No data available

6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up Soak up with inert adsorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections For disposal see Section 13.

7 Handling and Storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Recommended Storage Temperature : On receipt store between 2-8°C

7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8 Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the products.

Personal protective equipment

Hygiene measure

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the product.

Eye/face protection

Tightly fitting saftey goggles; Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). *Skin protection*

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 contaminated gloves after use in accordance with applicable laws and good laboratory practices.

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Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425/EEC and the standard EN ISO 374-1/2016 derived from it.

Body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environment exposure controls Do not empty into drains.

9 **Physical and chemical properties**

9.1 Information on basic physical and chemical properties

Appearance	Cream to yellow coloured homogeneous free
	flowing powder
Odour	No data available
Odour Threshold	No data available
рН	5.20 - 5.60
Melting/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Flammability (Solid, gas)	No data available
Vapour pressure	No data available
Relative density	No data available
Water Solubility	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Vapour density	No data available
Thermal decomposition	No data available

9.2 Other safety information

No data available

10 **Stability and Reactivity**

10.1 Reactivity

No data available

10.2 **Chemical stability**

No data available

Possibility of hazardous reactions 10.3 No data available

10.4 **Conditions to avoid** No data available

- **10.5** Incompatible materials No data available
- **10.6 Hazardous decomposition products** Refer Section 5.2. Other Decomposition products not known.

11 Toxicological Information

11.1 Information on toxicological effects Acute toxicity No data available Skin corrosion/irritation No data available Serious eye damage/eye irritation No data available Respiratory or skin sensitisation No data available Germ cell mutagenicity No data available Carcinogenicity IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Reproductive toxicity No data available Specific target organ toxicity- single exposure No data available Aspiration hazard No data available

Aspiration hazard No data available Potential Health Effects Inhalation REFER SECTION 2 Skin REFER SECTION 2 Eyes REFER SECTION 2 Ingestion REFER SECTION 2 Additional Information RTECS : No data available

11.2 Components

Ferrous sulphate Acute Oral Toxicity Mouse LD50: 1.520 mg/kg

Additional Information

RTECS: NO8510000 **Manganese sulphate** Acute oral toxicity Rat LD50 :2,150 mg/kg (As per IUCLID) Acute Dermal Toxicity Rat LD50: Not determined. Acute Inhalation Toxicity Rat LC50 : > 4.45 mg/l (As per OECD Test Guideline 403) Additional Information RTECS: OP0893500

Ammonium citrate

No toxicological data available

Additional information

RTECS: GE7545000

12 Ecological Information

12.1 Toxicity

No data available **Components Ferrous sulphate** *Toxicity to fish* Brook trout (Salvelinus fontinalis) LC 50: 0.41 mg/l ; 96h *Toxicity to daphnia and other aquatic invertebrates* Water flea (Daphnia magna) EC 50:6.15 mg/l;48h

Components

Manganese sulphate

Toxicity to Fish Onchorhynchus mykiss (Rainbow trout) LC50 :14.5 mg/l; 96h. Pimephales promelas (fathead minnow) LC50 : 30.6 mg/l; 96 h. Toxicity to daphnia and other aquatic invertebrates Daphnia magna (Water flea) EC50 : 8.3 mg/l; 48 h. Acute Toxicity to Aquatic Plants Desmodesmus subspicatus (algae) EC50 61 mg/l; 72 h (As per OECD Test Guideline 201)

12.2 Persistence and degradability

No data available

- **12.3 Bioaccumulative potential** No data available
- **12.4 Mobility in soil** No data available

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12.5 PBT and vPvB assessment

This substance or mixture contains no components considered to be persistent, bioaccumulating nor toxic (PBT) at levels of 0.1% or higher.

12.6 Other adverse effects No data available

13 Disposal Considerations

13.1 Waste treatments methods

Product

Offer surplus and non- recyclable solutions to a licenced company. Contact a licenced professional waste disposal service to dispose off this material.

13.2 Contaminated packaging

Dispose of as unused product.

14 Transport Information

14.1 UN-No

ADNR : ADR : IATA_C : IATA_P : IMDG : RID :

14.2	UN proper shipping name
	ADNR : Not dangerous goods
	ADR : Not dangerous goods
	IATA_C : Not dangerous goods
	IATA_P : Not dangerous goods
	IMDG : Not dangerous goods
	RID : Not dangerous goods
14.3	Transport hazard class(es)
	ADNR: - ADR: - IATA_C: - IATA_P: - IMDG: - RID: -
14.4	Packaging group
	ADNR : ADR : IATA_C : IATA_P : IMDG : RID :
14.5	Environmental hazards
	ADNR : No ADR : No IMDG : Marine Pollutant No IATA_C : No IATA_P : No RID : No
14.6	Special precautions for use
	No data available
15	Regulatory Information
	This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
15.1	Safety health and environment regulations/legislation specific for the substance or
	mixture
	No data available
15.2	Chemical Safety Assessment
	No data available

16 Other information

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
Acute Tox.oral 4	Acute toxicity, oral, Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment, long term hazard, Category 2
Eye Irrit. 2A	Serious eye damage or eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion or irritation, Category 2
STOT RE 2	Specific target organ toxicity, repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3

Further Information

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The information given in this safety data sheet is believed to be correct yet does not claim to be all inclusive. This document is intended only as a guide for appropriate precautionary handling of the material by properly trained individuals, information here being commensurate with the present state of our knowledge regarding the manner and conditions of use, handling, storage or disposal. The information provided herein shall not be considered as guarantee of the properties of the product. HiMedia Laboratories, shall not be held liable for any damage resulting from improper handling or contact with the above product. Unless explicitly stated on the product or in any of the documentation accompanying the product, it is intended for research or testing purpose only and is not to be used for any other purpose.