

SAFETY DATA SHEET (SDS) FERROUS SULFATE MONOHYDRATE

SECTION 1 – IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Manufacturer & Supplier: NUMINOR CHEMICAL INDUSTRIES LTD.

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Product Name: Ferrous Sulfate Monohydrate:

Formula: FeSO₄.H₂O
Synonyms: Ferrous Sulphate, IronSulfate Monohydrate
Primary Use: Mineral nutrient additive for the feed industry.

SECTION 2 - HAZARDS IDENTIFICATION

Classification according to Regulation (EC) 1272/2008 (GHS-CLP)

According to Regulation (EC) No1272/2008
Accute toxicity - Acute toxicity, Oral (Category 4)

GHS Pictogram:



Signal Word: **Warning**

Hazard Statements:

H302 Harmful if swallowed
H315 Causes Skin Irritation
H319 Causes serious eye irritation

Precautionary Statements:

P305+P351+P338 If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do

Classification according to Directive 67/548.

Hazard Symbol:



Xn; Xi

R-Phrases:

R22 Harmful if swallowed
R36/38 Irritating to eyes and skin
R 43 may cause irritation to skin

S- Phrases

S2 Keep out of the reach of children
S46 If swallowed, seek medical advice immediately and show this container or label.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Formula: FeSO4. H2O
Molecular Weight:: 169,92 g/mol
Appearance & Odour: Solid granular powder(fine), white to yellowish in colour.
CAS-No 17375-41-6
EC-No. 231-753-5
Index-No.
Classification Acute Tox. 4; Eye Irritation 2; Skin irritation 2

SECTION 4 - FIRST AID MEASURES

Effects and symptoms: Chills, fever, nausea, vomiting, coughing, weakness and headaches, skin irritation.

First aid

- **Skin contact:** Wash immediately with plenty of water and soap/
- **Inhalation:** Remove victim to fresh air. Clean nasal cavity with water. Give oxygen if breathing difficulty. Seek medical attention. If feeling unwell, immediately seek medical attention.
- **Eye contact:** Rinse immediately with clean water for 15 minutes. If feeling unwell, immediately seek medical attention.
- **Ingestion:** Immediately rinse mouth with water. Do not induce vomiting. Give large quantities of water or milk to drink. If feeling unwell, immediately seek medical attention.

Protection of rescue personnel: Avoid all unnecessary exposure. Use appropriate protection (see Section 6).

SECTION 5 – FIRE, FIGHTING & EXPLOSION DATA

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| | |
|---|--|
| Fire: | Non Combustible. |
| Flammability: | Non Flammable |
| Flash point: | Not Combustible |
| Extinguishing media: | In case of fire in immediate vicinity use any extinguishing agent. |
| Protection of fire-fighters: | Use breathing apparatus (self-contained breathing apparatus with full face shield). Wear suitable protective clothing. |
| Hazardous combustion and: Decomposition products | None. |

SECTION 6 - ACCIDENTAL RELEASE MEASURES & SPILL LEAK PROCEDURES

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| Personal precautions: | Wear suitable gloves and eye/face protection. Avoid dust creation. |
| Environmental precautions: | Avoid allowing product to enter drains, sewage system, ground water. |
| Methods for cleaning up: | Sweep up and shovel into suitable containers for disposal. Re-use or recycle waste. |

SECTION 7 - HANDLING AND STORAGE

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| Handling & storing: | Good housekeeping - store in a cool dry place - keep containers shut. Avoid making dust. Avoid moisture. |
| Packing Materials: | All materials suitable. |

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

- **Respiratory protection:** Respiratory protection equipment necessary when dust is apparent
Type P1 respirator (EN 143).
- **Hand protection:** Protective Gloves.
Material: leather gloves, cotton gloves, rubber gloves.
- **Skin protection:** Work clothes.
- **Eye protection:** Chemical goggles or safety glasses.
- **Engineering measures:** Mechanical ventilation is recommended.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------------|---|
| Form: | solid |
| Melting Point: | 64 °C |
| Solubility in water: | Soluble |
| Appearance & Odour: | Solid granular powder(fine), white to off white colour. |
| Density: | 1,898 g/cm3 at 25 °C |

SECTION 10 - STABILITY & REACTIVITY DATA

- Stability:** Stable under ordinary conditions, avoid moisture.
Hazardous Reactions: Hazardous decomposition products formed under fire conditions. - Iron oxides, Sulphur oxides
Incompatibility (materials to avoid): Strong oxidizing agents. Avoid moisture

SECTION 11 – TOXICOLOGICAL INFORMATION

- Acute toxicity** LD50 Oral - mouse - 1.520 mg/kg , LD50 Intraperitoneal - mouse - 245 mg/kg, LD50 Intravenous - mouse - 51 mg/kg
- **Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.
- **Dermal:** May be harmful if absorbed through skin. May cause skin irritation.
- **Ingestion:** Harmful if swallowed.
Dermal irritation: Can cause minor irritation.
Eyes irritation: May cause eye irritation.
Chronic toxicity: Severe or chronic ferrous sulfate poisonings may damage blood vessels. Large chronic doses cause rickets in infants. Chronic exposure may cause liver effects. Prolonged exposure of the eyes may cause discoloration.
- Sensitization:** Not available.
Carcinogenicity: 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.
Mutagenicity: Not available.
Reproductive toxicity: No data available.

SECTION 12 - ECOLOGICAL INFORMATION

- Persistence and degradability:** Not applicable.
Bioaccumulative potential: Not applicable.
Ecotoxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Mobility: Not applicable.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Disposal:** Comply with local regulations for disposal.
Waste of residues: This material and its container should be labeled Hazardous Goods.
Contaminated packaging: Keep waste packaging separate.
Waste should be disposed of in a permitted chemical waste facility.

SECTION 14 - TRANSPORT INFORMATION

ADR/RID

Not Regulated

IMDG

Not Regulated

IATA

Not Regulated

SECTION 15 – REGULATORY INFORMATION

Classification according to Regulation (EC) 1272/2008 (GHS-CLP).
This Safety Data Sheet complies with EC regulation No. 1907/2006/

SECTION 16 - OTHER INFORMATION

Text of H-code(s) and R-phrases(s) mentioned in Section 2

| | |
|----------------|---|
| H302 | Harmful if swallowed |
| H315 | Causes Skin Irritation |
| H319 | Causes serious eye irritation |
| P305+P351+P338 | If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do |
| Xn | Harmful |
| Xi | Irritant |
| R22 | Harmfull if swallowed |
| R36/38 | Irritating to eyes and skin |
| R 43 | May cause irritation to skin |
| S2 | if swallowed, seek medical advice immediately and show this container or label. |
| S46 | If swallowed, seek medical advice immediately and show this container or label. |

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