MATERIAL SAFETY DATA SHEET

FERROUS SULFATE MONOHYDRATE

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Ferrous Sulfate monohydrate

Synonyms: Slight grey to off-white powder or granular

Company information: FerroChem Co.,Ltd.

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SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS No	Chemical Name	%(by weight)	Classification
17375-41-6	Ferrous Sulfate monohydrate	90 ~ 100	Not regulated

SECTION 3 - HAZARDS IDENTIFICATION EMERGENCY OVERVIEW

WARNING!

Harmful if swallowed or inhaled. Causes irritation to skin, eyes and respiratory tract. Affects the liver.

Potential Health Effects

Eye Contact: Causes irritation, redness, and pain.

Skin Contact: Causes irritation to skin. Symptoms include redness, itching, and pain.

Ingestion: Low toxicity in small quantities but larger dosages may cause nausea, vomiting, diarrhea, and black stool. Pink urine discoloration is a strong indicator of iron poisoning. Liver damage, coma, and death from iron poisoning has been recorded. Smaller doses are much more toxic to children.

Inhalation: Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

Chronic Exposure: 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.

SECTION 4 - FIRST AID MEASURES

Eye: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Skin: Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Substance is noncombustible. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Extinguishing Media:

Use protective clothing and breathing equipment appropriate for the surrounding fire.

Use any means suitable for extinguishing surrounding fire.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Place under an inert atmosphere.

SECTION 7 - HANDLING and STORAGE

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Do not ingest or inhale. Handle under an inert atmosphere. Store protected from air.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area. Do not use this product if coated with brownish-yellow basic ferric sulfate. Isolate from incompatible substances.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits: 1 mg/m^3 (TWA) soluble iron salt as Fe

Personal Protective Equipment

Eye: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: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 a respirator's use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Slight grey to off-white powder or granular
Odor:	Odorless.
Solubility:	48.6 g/100 g water @ 50C (122F)
Density:	1.90
pH:	3.0 – 5.0
Boiling Point:	> 300C (> 572F) Decomposes.
Melting Point:	57C (135F) Loses water

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under ordinary conditions of use and storage. Looses water in dry air and oxidizes upon exposure to moisture, forming a brown coating of extremely corrosive basic ferric sulfate.

Conditions to Avoid: Moisture.

Incompatibilities with Other Materials: Alkalis, soluble carbonates, and oxidizing materials.

Reacts in moist air to form ferric sulfate.

Hazardous Decomposition Products: Burning may produce sulfur oxides.

Hazardous Polymerization: Has not been reported

SECTION 11 - TOXICOLOGICAL INFORMATION

LD50/LC50: No information available.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: No information available.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate: No information found.

Environmental Toxicity: No information found.

SECTION 13 - DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

Additionally, waste generators must consult government, state and local hazardous waste regulations to ensure complete and accurate classification.

SECTION 14 – TRANSPORT INFORMATION

Shipping Name	Ferrous Sulfate monohydrate
Hazard Class(IMDG)	N/A
UN Number	N/A
Packing Group	N/A

SECTION 15 –REGULATORY INFORMATION

GB12268-2005

And any applicable national regulations for this product.

SECTION 16 –ADDITIONAL INFORMATION

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