Material Safety Data Sheet

Ferric nitrate nonahydrate

Section 1 - Chemical Product and Company Identification

MSDS Name: Ferric nitrate nonahydrate

Company Identification: SPE Chemcials Co., Ltd

Emergency Number: +86-21 51386314

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7782-61-8	Ferric nitrate nonahydrate	>98	unlisted

Hazard Symbols: XI O
Risk Phrases: 36/37/38 8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: light purple. **Danger!** Oxidizer. May cause severe respiratory and digestive tract irritation with possible burns. May cause severe skin irritation and possible burns. May cause central nervous system effects. May cause cardiac disturbances. May cause liver and kidney damage. May cause blood abnormalities.
Target Organs: Blood, kidneys, heart, central nervous system, liver.

Potential Health Effects

Eye: Contact with eyes may cause severe irritation, and possible eye burns.
Skin: May cause severe skin irritation. May cause skin burns.
Ingestion: May cause central nervous system depression, kidney damage, and liver damage. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause cardiac disturbances.

Inhalation: May cause respiratory tract irritation. May cause methemoglobinemia, cyanosis, convulsions, tachycardia, dyspnea (labored breathing), and death.
Chronic: May cause methemoglobinemia, which is characterized by chocolate-brown colored blood, headache, weakness, dizziness, breath shortness, cyanosis (bluish skin due to deficient oxygenation of blood), rapid heart rate, unconsciousness and possible death.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.
Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Notes to Physician: Treat symptomatically and supportively.
Antidote: The use of Deferoxamine as a chelating agent should be determined only by qualified medical personnel.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Use water spray to keep fire-exposed containers cool. Oxidizer. Greatly increases the burning rate of combustible materials.
Extinguishing Media: Use water only! Do NOT use carbon dioxide or dry chemical.

Section 6 - Accidental Release Measures

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

Spills/Leaks: Wear a self contained breathing apparatus and appropriate Personal protection. (See Exposure Controls, Personal Protection section). Sweep up, then place into a suitable container for disposal.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get on skin or in eyes. Do not ingest or inhale. Keep away from clothing and other combustible materials.
Storage: Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ferric nitrate nonahydrate	none listed	none listed	none listed

OSHA Vacated PELs: Iron (III) Nitrate Nonahydrate: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Appearance: light purple
Odor: none reported
pH: Not available.
Vapor Pressure: Negligible.
Vapor Density: Not available.
Evaporation Rate: Negligible.
Viscosity: Not available.
Boiling Point: 257 deg F
Freezing/Melting Point:117 deg F
Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
Decomposition Temperature:100 deg C
NFPA Rating: Not published.
Explosion Limits, Lower: Not available.
Upper: Not available.
Solubility: Soluble in water.
Specific Gravity/Density:1.6840 (water)
Molecular Formula: FeN3O9.9H2O
Molecular Weight:403.9823

Section 10 - Stability and Reactivity

Chemical Stability: Stable. However, may decompose if heated.

Conditions to Avoid: Incompatible materials, temperatures above 50°C.

Incompatibilities with Other Materials: Combustible materials, reducing agents, strong oxidizing agents, light.
Hazardous Decomposition Products: Nitrogen oxides.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 7782-61-8: NO7175000
LD50/LC50:
CAS# 7782-61-8:
Oral, rat: LD50 = 3250 mg/kg;<BR.

Carcinogenicity:
CAS# 7782-61-8: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: No information available.
Other Studies: None.

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: No information reported.
Physical: No information available.
Other: None.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	FERRIC NITRATE				FERRIC NITRATE
Hazard Class:	5.1				5.1(9.2)
UN Number:	UN1466				UN1466
Packing Group:	III				III

Section 15 - Regulatory Information

Hazard Symbols:
XI O
Risk Phrases:
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 8 Contact with combustible material may cause fire.

Safety Phrases:
S 17 Keep away from combustible material.
S 24/25 Avoid contact with skin and eyes.

Section 16 - Additional Information

MSDS Creation Date: 9/02/2007

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall spe chemical be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.