

MAY 02 2001

Material Safety Data Sheet

KEMIRON ATLANTIC
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EAST PRESIDENT ST. EXT.
SAVANNAH, GEORGIA 31404

Prod 1053

FERRIC SULFATE GRANULAR

(Ferric Flocc)

This information is required to be disclosed for safety in the workplace. This MSDS has been prepared within the guidelines of the Federal OSHA Hazard Communication Standard, 29CFR 1910.1200. The D.O.T and EPA consider Ferric Sulfate a Hazardous Substance.

Ferric Sulfate is not considered flammable but breathing the fumes or dusts from an ensuing fire in the area can be harmful to the respiratory tract and eyes.

Emergency Wash Facilities: Where there is any possibility that an employee's eyes or skin may become exposed to this substance the employer should provide a safety shower and eye wash station within the immediate work area for emergency use.

Clothing: Protective clothing is not required for Ferric Sulfate. Avoid repeated or prolonged contact with this substance.

Gloves: Protective gloves are not required but are recommended.

Proper decontamination procedures should be followed after any contact with this substance. Thoroughly wash any clothing and equipment with copious amounts of water. Dispose of the wash water to a suitable waste water facility.

I. PRODUCT IDENTIFICATION

Revised: August 18, 2000
Formula: $Fe_2(SO_4)_3 \cdot 9H_2O$
Synonyms/Common Names: Iron Sulfate; Ferric Sulfate
KEMWATER FERIX-3.
CAS Number 10028-22-5
DOT Proper Shipping Name: Environmentally hazardous substances, solid, N.O.S.
DOT Hazard Class: 9
DOT I.D. Number: UN 3077, PG III
DOT Hazardous Substance: RQ= 1000lbs.

II. PHYSICAL DATA

Appearance and Odor: Hydrosopic, yellowish crystals or grayish-white powder. Slight odor.
Freezing Point: N/A
Boiling Point: N/A
Melting Point: 896 F (480 C)
Water Solubility: 99%
pH: <1 in solution
Molecular Weight: 562.0
Specific Gravity: 3.1

III. FIRE AND EXPLOSION DATA

Flash Point: N/A
Autoignition Temperature: N/A

Extinguishing Media: Use extinguishing media as appropriate for surrounding fire. Negligible fire hazard when exposed to heat or flame. No acute hazard. Move container from fire area if possible. Avoid breathing vapors or dusts; keep upwind.

IV. SPILL OR LEAK HANDLING

IN CASE OF EMERGENCY, CALL CHEMTREC (800) 424-9300.

Reportable Quantity per 40 CFR 302.4 is 1000 pounds.

Occupational Spills: For large spills, sweep up with minimum of dusting and place into suitable clean, dry containers for reclamation or later disposal. Residue should be cleaned up using a high-efficiency particulate filter vacuum.

The Reportable Quantity of 1000 pounds requires notification to the Local Emergency Planning Committee and the State Emergency Response Commission. If the release is reportable under CERCLA, the National Response Center must be notified immediately at (800) 424-8802.

DISTRIBUTED BY
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V. PROTECTIVE EQUIPMENT REQUIREMENTS

Ventilation Requirements: Provide local exhaust ventilation system to meet published exposure limits.

Eye Protection: Employee must wear splash-proof or dust-resistant safety goggles and a face shield to prevent contact with this substance.

Respiratory Requirements: The following respirators are recommended based on information found in the physical data, toxicity and health effects sections. They are ranked in order from minimum to maximum respiratory protection. The specific respirator selected must be based on contamination levels found in the work place. They must be based on the specific operation, and must not exceed the working limits of the respirator. The National Institute must jointly approve them for Occupational Safety and Health and the Mine Safety and Health Administration.

For fire fighting any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

VI. HANDLING AND STORAGE

Observe all federal, state and local regulations when storing this substances.

Store in dry, well-closed containers.

Store away from incompatible substances.

The following facilities should be readily accessible in all areas where this material is handled or stored: Safety showers - with quick opening valves which open. Water should be supplied through insulated and heat traced lines to prevent freeze-ups in cold weather; Eye wash fountains - or other means of washing the eyes with a gentle flow of tap water.

VII. TOXICOLOGY

Inhalation:

ACUTE EXPOSURE: May cause irritation with coughing, sneezing or difficulty breathing.

CHRONIC EXPOSURE: No data available.

ANHYDROUS: 601 mg/kg intraperitoneal-mouse LD50; mutagenic data (RTECS).

Hydrate: No data available.

CARCINOGEN STATUS: NONE

LOCAL EFFECTS: Irritant- Inhalation, skin, and eyes.

ACUTE TOXICITY LEVEL: Insufficient data

TARGET EFFECTS: Poisoning may affect the liver and kidneys.

At increased risk from exposure: Persons with preexisting skin disorders, eye problems, or impaired liver, kidney, or respiratory functions.

Skin Contact:

FERRIC SULFATE: IRRITANT

ACUTE EXPOSURE: Ferric sulfate may cause irritation.

CHRONIC EXPOSURE: No data available.

Eye Contact: IRRITANT

ACUTE EXPOSURE: May cause irritation, redness, and corneal burns due to the reaction of the compound with moisture to form sulfuric acid.

CHRONIC EXPOSURE: Repeated or prolonged contact with irritants may cause conjunctivitis or effects similar to those for acute exposure.

Exposure Limit Information:

The Federal OSHA	1 mg/m ³ TWA
ACGIH	1 mg/m ³ TWA
NIOSH recommended	1 mg/m ³ TWA

OSHA revoked the final rule limits of January 19, 1989 in response to the 11th Circuit Court of Appeals decision (AFL-CIO v. OSHA) effective June 30, 1993. See 29 CFR 1910.1000 (58 FR 35388).

VIII. FIRST AID

INHALATION FIRST AID: Remove from exposure area to fresh air immediately. Perform artificial respiration if necessary. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

Ingestion: If patient is not in shock or coma, induce emesis with syrup of ipecac, if vomiting has not occurred. Follow with gastric lavage using deferoxamine, 2 grams in 1 liter of water containing sodium bicarbonate in the stomach. Maintain airway, blood pressure and respiration. Treatment should be administered by qualified medical personnel. Get medical attention immediately.

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Skin Contact: Remove contaminated clothing and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes.)

Eye Contact: Immediately flush the eyes with large quantities of running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. Do not attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used. Continue the flushing for an additional 15 minutes if the physician is not immediately available.

NOTE TO PHYSICIAN:

ANTIDOTE:

The following antidote has been recommended. However, the decision as to whether the severity of poisoning requires administration of any antidote and actual dose required should be made by qualified medical personnel.

Iron Salt Poisoning: Give deferoxamine, 15 mg/kg/hour by continuous intravenous infusion to a maximum of 80 mg/kg in each 12 hour period. Monitor the blood pressure during administration of deferoxamine and reduce the rate of administration if the blood pressure falls. Single doses should not exceed 1 gram and the maximum in 24 hours should not exceed 6 grams. Deferoxamine is hazardous in patients with severe renal disease or anuria, and dialysis is necessary.

Injected deferoxamine is associated with a high risk and should be reserved for serious poisoning. Continue deferoxamine therapy until the patient is free of symptoms and signs for 24 hours.

IX. REACTIVITY DATA

REACTIVITY:

Stable under normal temperatures and pressures.

CONDITIONS TO AVOID:

Prevent dispersion of dust in the air.

INCOMPATIBILITIES:

Mineral Acids: Incompatible

Hazardous Decomposition: Thermal decomposition products may include toxic and hazardous oxides of iron and sulfur.

POLYMERIZATION: Not applicable.

X. TRANSPORTATION DATA

D.O.T Proper Shipping Description:
Environmentally Hazardous Substance, Solid,
N.O.S (Ferric Sulfate Granular), 9, UN 3077, PGIII

D.O.T Hazard Class or Division: 9

D.O.T Packing Group: PGIII

D.O.T Labeling Requirements: Class 9

XI. DISPOSAL

If this product becomes a hazardous waste, it must be disposed of in accordance with all federal, state, and local health and pollution regulations.

XIII. ADDITIONAL REGULATORY STATUS INFORMATION

TSCA STATUS: YES

CERCLA SECTION 103 (40CFR302.4):
SARA SECTION 302 (40CFR355.30): NO
SARA SECTION 304 (40CFR355.40): NO
SARA SECTION 313 (40CFR372.65): NO

OSHA PROCESS SAFETY (29CFR1910.119):
NO

CALIFORNIA PROPOSITION 65: NO

SARA HAZARD CATEGORIES

SARA SECTIONS 311/312 (40CFR370.21):
ACUTE HAZARD YES
CHRONIC HAZARD NO
FIRE HAZARD NO
REACTIVITY HAZARD NO
SUDDEN RELEASE HAZARD NO

XIII. ADDITIONAL INFORMATION

All information is offered in good faith, without guarantee or obligation for the accuracy or sufficiency thereof, or the results obtained, and is accepted at user's risk. The uses referred to are for the purpose of illustration only. User should investigate and establish the suitability of such use(s) in every case. Nothing herein shall be construed as a recommendation for use which infringe valid patents or as extending license under valid patents.

XIV. SOURCE OF REFERENCES

Material Safety Data Sheet

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FOR FURTHER PRODUCT INFORMATION CONTACT:

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