

Common Name: **FERRIC SULFATE**

Synonyms: Iron Persulfate; Iron (3+) Sulfate

CAS No: 10028-22-5

Molecular Formula: $Fe_2O_{12}S_3$

RTK Substance No: 0925

Description: Odorless, grayish-white or yellow powder or crystalline, lumpy solid

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
2 - Health 0 - Fire 0 - Reactivity DOT#: UN 3077 ERG Guide #: 171 Hazard Class: 9 (Miscellaneous Hazardous Material)	Extinguish fire using an agent suitable for type of surrounding fire. Ferric Sulfate itself does not burn. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Sulfur Oxides</i> and <i>Iron Oxides</i> . Use water spray to keep fire-exposed containers cool.	Ferric Sulfate may react violently with STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE). Ferric Sulfate is not compatible with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE). Ferric Sulfate is hygroscopic and sensitive to light.

SPILL/LEAKS

Isolation Distance:

Spill: 25 meters (75 feet)

Fire: 800 meters (1/2 mile)

Moisten spilled material first or use a HEPA-filter vacuum for clean-up and place into sealed containers for disposal.

DO NOT wash into sewer.

Ferric Sulfate is dangerous to aquatic life.

PHYSICAL PROPERTIES

Odor Threshold:	Odorless
Flash Point:	Nonflammable
Specific Gravity:	3.1 (water = 1)
Water Solubility:	Soluble
Boiling Point:	Decomposes
Melting Point:	Decomposes at 896°F (480°C)
Molecular Weight:	399.9

EXPOSURE LIMITS

NIOSH: 1 mg/m³, 10-hr TWA (as *Iron*)

ACGIH: 1 mg/m³, 8-hr TWA (as *Iron*)

The Protective Action Criteria values are:

PAC-1 = 10.7 mg/m³

PAC-2 = 17.9 mg/m³

PAC-3 = 75 mg/m³

PROTECTIVE EQUIPMENT

Gloves:	Nitrile, Neoprene and Natural Rubber
Coveralls:	Tyvek®
Respirator:	>1 mg/m ³ - Supplied air or full-facepiece APR with High efficiency particulate filters >10 mg/m ³ - SCBA

HEALTH EFFECTS

Eyes: Irritation

Skin: Irritation

Inhalation: Nose and throat irritation with coughing and wheezing.

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of water.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer promptly to a medical facility.