

FERRIC NITRATE

FNT

CAUTIONARY RESPONSE INFORMATION				4. FIRE HAZARDS		7. SHIPPING INFORMATION	
Common Synonyms Ferric nitrate nonahydrate Nitric acid, iron(III) salt		Solid	Green, colorless to pale violet Sinks and mixes with water.	4.1 Flash Point: Not flammable 4.2 Flammable Limits in Air: Not flammable 4.3 Fire Extinguishing Agents: Not pertinent 4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent 4.5 Special Hazards of Combustion Products: Toxic oxides of nitrogen and nitric acid vapor may form in fires. 4.6 Behavior in Fire: In contact with combustible materials, will increase the intensity of a fire. Apply water to cool containers or spilled material. 4.7 Auto Ignition Temperature: Not pertinent 4.8 Electrical Hazards: Not pertinent 4.9 Burning Rate: Not pertinent 4.10 Adiabatic Flame Temperature: Currently not available 4.11 Stoichiometric Air to Fuel Ratio: Not pertinent 4.12 Flame Temperature: Currently not available 4.13 Combustion Molar Ratio (Reactant to Product): Not pertinent 4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed		7.1 Grades of Purity: Technical, 99.0%; Analytical 7.2 Storage Temperature: Ambient 7.3 Inert Atmosphere: No requirement 7.4 Venting: Open 7.5 IMO Pollution Category: C 7.6 Ship Type: 2 7.7 Barge Hull Type: Currently not available	
Fire Keep people away. Avoid contact with solid and dust. Avoid inhalation. Shut off ignition sources and call fire department. Notify local health and pollution control agencies. Protect water intakes.						8. HAZARD CLASSIFICATIONS	
Exposure CALL FOR MEDICAL AID. DUST Irritating to eyes, nose and throat. If inhaled will cause coughing or difficult breathing. If in eyes, hold eyelids open and flush with plenty of water. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. SOLID Irritating to skin and eyes. Harmful if swallowed. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES: hold eyelids open and flush with plenty of water. IF SWALLOWED: and victim is CONSCIOUS, have victim drink water or milk and have victim induce vomiting. IF SWALLOWED: and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.		8.1 49 CFR Category: Oxidizer 8.2 49 CFR Class: 5.1 8.3 49 CFR Package Group: III 8.4 Marine Pollutant: No 8.5 NFPA Hazard Classification: Not listed 8.6 EPA Reportable Quantity: 1000 pounds 8.7 EPA Pollution Category: C 8.8 RCRA Waste Number: Not listed 8.9 EPA FWPCA List: Yes		9. PHYSICAL & CHEMICAL PROPERTIES			
Water Pollution Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		9.1 Physical State at 15° C and 1 atm: Solid 9.2 Molecular Weight: 404.02 9.3 Boiling Point at 1 atm: Not pertinent (decomposes) 9.4 Freezing Point: 117°F = 47°C = 320°K 9.5 Critical Temperature: Not pertinent 9.6 Critical Pressure: Not pertinent 9.7 Specific Gravity: 1.7 at 20°C (solid) 9.8 Liquid Surface Tension: Not pertinent 9.9 Liquid Water Interfacial Tension: Not pertinent 9.10 Vapor (Gas) Specific Gravity: Not pertinent 9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent 9.12 Latent Heat of Vaporization: Not pertinent 9.13 Heat of Combustion: Not pertinent 9.14 Heat of Decomposition: Not pertinent 9.15 Heat of Solution: 40 Btu/lb = 22 cal/g = 0.92 X 10 ³ J/kg 9.16 Heat of Polymerization: Not pertinent 9.17 Heat of Fusion: Currently not available 9.18 Limiting Value: Currently not available 9.19 Reid Vapor Pressure: Currently not available		5. CHEMICAL REACTIVITY			
1. CORRECTIVE RESPONSE ACTIONS Dilute and disperse Stop discharge		2. CHEMICAL DESIGNATIONS		6. WATER POLLUTION		NOTES	
3.1 Personal Protective Equipment: Dust mask; goggles or face shield; protective gloves 3.2 Symptoms Following Exposure: Inhalation of dust irritates nose and throat. Ingestion causes irritation of mouth and stomach. Dust irritates eyes and can irritate skin on prolonged contact. 3.3 Treatment of Exposure: INHALATION: move to fresh air. INGESTION: give large amounts of water; induce vomiting if large amounts have been swallowed. EYES: flush with water; get medical attention if irritation persists. SKIN: flush with water. 3.4 TLV-TWA: 1 mg/m ³ (as iron) 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 2; LD ₅₀ = 0.5 - 5 g/kg 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritant Characteristics: Not pertinent 3.11 Liquid or Solid Characteristics: Currently not available 3.12 Odor Threshold: Currently not available 3.13 IDLH Value: Not listed. 3.14 OSHA PEL-TWA: Not listed. 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: Not listed. 3.17 EPA AEGL: Not listed		2.1 CG Compatibility Group: Not listed. 2.2 Formula: Fe(NO ₃) ₃ ·9H ₂ O 2.3 IMO/UN Designation: 5.1/1466 2.4 DOT ID No.: 1466 2.5 CAS Registry No.: 10421-48-4 2.6 NAERG Guide No.: 140 2.7 Standard Industrial Trade Classification: 52359		6.1 Aquatic Toxicity: Currently not available 6.2 Waterfowl Toxicity: Currently not available 6.3 Biological Oxygen Demand (BOD): None 6.4 Food Chain Concentration Potential: None 6.5 GESAMP Hazard Profile: Not listed			

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	NOT PERTINENT		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
34	67.950		NOT		NOT		NOT
36	68.800						
38	69.660						
40	70.520						
42	71.379		PERTINENT		PERTINENT		PERTINENT
44	72.230						
46	73.089						
48	73.940						
50	74.799						
52	75.650						
54	76.509						
56	77.360						
58	78.219						
60	79.080						
62	79.929						
64	80.790						
66	81.639						
68	82.500						
70	83.349						
72	84.209						
74	85.059						
76	85.919						
78	86.780						
80	87.629						
82	88.490						
84	89.339						