FERROUS CHLORIDE

1. CORRECTIVE RESPONSE ACTIONS

1.1 Personal Protective Equipment: Dust mask; goggles or face shield; rubber gloves
1.2 Symptoms Following Exposure: Inhalation of dust irritates nose and throat. Ingestion causes irritation of mouth and stomach. Dust irritates eyes and may cause skin irritation on prolonged contact.
1.3 Treatment of Exposure: INHALATION: move to fresh air. INGESTION: if large amounts are swallowed, promptly induce vomiting and get medical help. EYES: flush with plenty of water for at least 15 min. get medical help promptly if it affects eyes. SKIN: wash with soap and water.
1.4 TLV:TWA: 1 mg/m^3 (as iron)
1.5 TLV-STEL: Not listed.
1.6 TVL-Ceiling: Not listed.
1.7 Toxicity by Ingestion: Grade 2, LD_50 = 0.5-5 g/kg (rat)
1.8 Toxicity by Inhalation: Currently not available.
1.9 Chronic Toxicity: Currently not available
1.10 Vapor (Gas) Irritant Characteristics: Currently not available
1.11 Liquid or Solid Characteristics: Currently not available
1.12 Odor Threshold: Currently not available
1.13 IDLH Value: Not listed.
1.14 OSHA PEL-TWA: Not listed.
1.15 OSHA PEL-STEL: Not listed.
1.16 OSHA PEL-Ceiling: Not listed.
1.17 EPA AEGL: Not listed

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.
2.2 Formula: FeCl_2·4H_2O
2.3 IMO/UN Designation: Not listed
2.4 DOT ID No.: 1759
2.5 CAS Registry No.: 7758-94-3
2.6 HAZARD Guide No.: 154
2.7 Standard Industrial Trade Classification: 5269

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Dust mask; goggles or face shield; rubber gloves
3.2 Symptoms Following Exposure: Inhalation of dust irritates nose and throat. Ingestion causes irritation of mouth and stomach. Dust irritates eyes and may cause skin irritation on prolonged contact.
3.3 Treatment of Exposure: INHALATION: move to fresh air. INGESTION: if large amounts are swallowed, promptly induce vomiting and get medical help. EYES: flush with plenty of water for at least 15 min. get medical help promptly if it affects eyes. SKIN: wash with soap and water.
3.4 TLV-TWA: 1 mg/m^3 (as iron)
3.5 TLV-STEL: Not listed.
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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

4. FIRE HAZARDS

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: Inhaling hydrogen chloride fumes may form in fire.
4.6 Behavior in Fire: Currently not available
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

5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: No reaction
5.2 Reactivity with Common Materials: Solutions may corrode metals.
5.3 Stability During Transport: Stable
5.4 Neutralizing Agents for Acids and Cations: Flush with water, rinse with dilute solution of sodium bicarbonate or soda ash.
5.5 Polymerization: Not pertinent
5.6 Inhibitor of Polymerization: Not pertinent

6. WATER POLLUTION

6.1 Aquatic Toxicity: 1.58 ppm/kg in daphnia/toxic/fresh water
6.2 Waterfowl toxicity: Currently not available
6.3 Biological Oxygen Demand (BOD): Currently not available
6.4 Food Chain Concentration Potential: None
6.5 GESAMP Hazard Profile: Not listed

8. HAZARD CLASSIFICATIONS

8.1.4 CFR Categorization: Corrosive material
8.2.4 CFR Class: II
8.3.4 CFR Package Group: II
8.4 Marine Pollutant: No
8.5 NFPA Hazard Classification: Not listed
8.6 EPA Reportable Quantity: 100 pounds
8.7 EPA Pollution Category: B
8.8 RCRA Waste Number: Not listed
8.9 EPA FWPCA List: Yes

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Physical State at 15°C and 1 atm: Solid
9.2 Molecular Weight: 138
9.3 Boiling Point at 1 atm: Not pertinent
9.4 Freezing Point: Not pertinent
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Not pertinent
9.7 Specific Gravity: 1.93 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: 18.8 kJ/mol = -0.42 x 10^2 J/g
9.16 Heat of Polymerization: Not pertinent
9.17 Heat of Fusion: 61.5 kcal
9.18 Limiting Value: Currently not available
9.19 Reid Vapor Pressure: Currently not available

NOTES

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