

KI03259 A Ferric chloride anhydrous

SDS No.: FF0100

10204

SAFETY DATA SHEET

KI03259A

CORROSIVE STORAGE CODE WHITE

Section 1

Chemical Product

**Nasco**

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P.O. Box 901  
Fort Atkinson, WI 53538-0901

**CHEMTREC 24 Hour Emergency**  
Phone Number (800) 424-9300  
For laboratory use only  
Not for drug, food or household use

**Product** FERRIC CHLORIDE, ANHYDROUS

**Synonyms** Iron(III) Chloride, Anhydrous

**Section 2** Hazards Identification

**Signal word:** DANGER

**Pictograms:** GHS05 / GHS07 / GHS09

**Target organs:** Eyes, Skin, Respiratory system, Liver, Gastrointestinal tract



**GHS Classification:**

Corrosive to metals (Category 1)  
Acute toxicity, oral (Category 4)  
Acute toxicity dermal (Category 5)  
Skin irritation (Category 2)  
Eye damage (Category 1)  
Acute aquatic toxicity (Category 2)  
Chronic aquatic toxicity (Category 2)

**GHS Label information Hazard statement:**

H290 May be corrosive to metals  
H302 Harmful if swallowed  
H313 May be harmful in contact with skin.  
H315 Causes skin irritation  
H318 Causes serious eye damage  
H411 Toxic to aquatic life with long lasting effects

**Precautionary statement:**

P234 Keep only in original container  
P406 Store in corrosive resistant container with a resistant inner liner  
P273 Avoid release to the environment.  
P391 Collect spillage  
P264 Wash hands thoroughly after handling  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/protective clothing/eye protection/face protection  
P301+P330+P312 IF SWALLOWED Rinse mouth. Call a POISON CENTER or doctor if you feel unwell  
P302+P352 IF ON SKIN Wash with plenty of water and soap  
P332+P313 If skin irritation occurs Get medical attention  
P305+P351+P338 IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 Immediately call a POISON CENTER or doctor  
P362+P364 Take off contaminated clothing and wash it before reuse  
P501 Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm

**Section 3** Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Ferric chloride, anhydrous	7705-08-0	100%	231-728-4

**Section 4** First Aid Measures

**INGESTION:** HARMFUL IF SWALLOWED. MAY CAUSE LIVER OR KIDNEYS DAMAGE. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** MAY CAUSE EYE DAMAGE. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

**Section 5** Fire Fighting Measures

**Suitable Extinguishing Media:** Do NOT use water! Dry chemicals, CO<sub>2</sub> or other agents as appropriate for surrounding fires.

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. May release toxic fumes of Hydrogen chloride gas in a fire.

**Section 6** Accidental Release Measures

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Recover for reuse if not contaminated. Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

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Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts or vapors. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources. Avoid contact with humid or wet areas. Keep away from metals.

Section 8 Exposure Controls / Personal Protection

Table with 5 columns: Exposure Limits, Chemical Name, ACGIH (TLV), OSHA (PEL), NIOSH (REL). Row 1: Iron salts, soluble, as Fe, TWA 1 mg/m³, No listing, TWA 1 mg/m³.

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or face shield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid, Greenish-black. Odor: Slight iron/acid odor. Odor threshold: Data not available. pH: <1.0 (2% solution). Melting / Freezing point: 307°C (580°F). Boiling point: 307°C (580°F). Flash point: Data not available. Evaporation rate (n-Butyl acetate = 1): <1. Flammability (solid/gas): Data not available. Explosion limits, Lower / Upper: Data not available. Vapor pressure (mm Hg): Negligible. Vapor density (Air = 1): Data not available. Relative density (Specific gravity): 2.80-2.90 @ 17.5°C. Solubility(ies): 50% by weight in water. Partition coefficient: Data not available. Auto-ignition temperature: Data not available. Decomposition temperature: Data not available. Viscosity: Data not available. Molecular formula: FeCl3. Molecular weight: 162.21.

Section 10 Stability & Reactivity

Chemical stability: Stable. Hazardous polymerization: Will not occur. Conditions to avoid: Excessive temperatures, heat, water, potassium, sodium, incompatible materials. Incompatible materials: Water, oxidizing agents, metals, strong bases, reducing agents, alcohols. Hazardous decomposition products: Hydrogen gas on contact with metals.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50 >1,932 mg/kg. Dermal-rabbit LD50 >2,000 mg/kg. Skin corrosion/irritation: Data not available. Serious eye damage/irritation: Data not available. Respiratory or skin sensitization: Data not available. Germ cell mutagenicity: Data not available. Carcinogenicity: Data not available. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Reproductive toxicity: Data not available. STOT-single exposure: Data not available. STOT-repeated exposure: Data not available. Aspiration hazard: Data not available. Potential health effects: Inhalation: Dust or vapors may be corrosive or irritating to the nose, throat and respiratory tract. Symptoms may include burning sensation, coughing, shortness of breath, lung inflammation and pulmonary edema. Ingestion: May cause severe liver or kidneys damage. May also cause gastrointestinal damage. Skin: May cause severe irritation and/or burns. Eyes: May cause severe irritation tearing, blurred vision, burns, severe damage, and permanent blindness. Signs and symptoms of exposure: See Potential health effects above. Exercise appropriate procedures to minimize potential hazards. Additional information: RTECS #: LJ9100000.

Section 12 Ecological Information

Toxicity to fish: Fathead minnows LC50 >1,000 ppm. Toxicity to daphnia and other aquatic invertebrates: Daphnia magna, EC50 >1,000 ppm. Toxicity to algae: No data available. Persistence and degradability: No data available. Bioaccumulative potential: No data available. Mobility in soil: No data available. PBT and vPvB assessment: No data available. Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: UN1773. Shipping name: Ferric chloride, anhydrous. Hazard class: 8. Packing group: III. Reportable Quantity: 1,000 lbs (454 kg). Marine pollutant: No. Exceptions: Limited quantity equal to or less than 5 Kg. 2012 ERG Guide # 154.

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the inventory list.

Table with 7 columns: Component, TSCA, CERCLA (RQ), RCRA code, DSL, NDSL, WHMIS Classification. Row 1: Ferric chloride anhydrous, Listed, 1,000 lbs (454 kg), Not listed, Listed, Not listed, E.

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

