(Food additive) Ferric chloride 18511 April 5, 2012



Material safety data sheet

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION SECTION 1 Catalog Numbers: 18511 Catalog Name: (Food additive) Ferric chloride Company Identification: Junsei Chemical Co., Ltd. 4-16, 4-Chome, Nihonbashi-Honcho, Chuo-ku Tokyo, 103-0023 JAPAN EMERGENCY TELEPHONE NUMBER: +81-48-988-3621 Sales Headquarters 6, 1-Chome, Ohmano-cho, Koshigaya, Saitama 343-0844, JAPAN FAX: +81-48-988-8719 E-mail: shiyaku-t@junsei.co.jp Web: http://www.junsei.co.jp/ CREATION DATE: April 5, 2012 _____ SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS _____ **COMPONENT:** Ferric chloride SYNONYMES: Iron(III) chloride hexahydrate CAS NUMBER:10025-77-1, 7705-08-0(anhydrous) EC NUMBER (EINECS): unlisted JAPAN NUMBER (ENCS): 1-213 PERCENTAGE: 98.5+% _____ SECTION 3 HAZARDS IDENTIFICATION _____

EMERGENCY OVERVIEW

Harmful if swallowed. Causes burns. Harmful. Corrosive. Hygroscopic.

Potential Health Effects

Eye:

May cause eye burns.

Skin:

Exposure may cause irritation and possible burns.

Ingestion:

May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.

Based upon known information concerning inorganic iron-containing substances, may cause severe digestive tract irritation with nausea, vomiting, diarrhea, and hemorrhage. May cause delayed effects including cardiovascular disturbances, liver/kidney damage, cerebral swelling, coma, and

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| Inhalation: May | cause severe irritation of the upper respiratory tract with |
|---|---|
| | burns, and inflammation. |
| Chronic: | |
| | available. |
| | eated exposure may cause an increased body load of iron, with sible chronic systemic effects. |
| SECTION 4 | FIRST AID MEASURES |
| Eyes: | |
| | rediately flush eyes with plenty of water for at least 15 minutes, asionally lifting the upper and lower eyelids. Get medical aid. |
| Skin: | |
| min | nediately flush skin with plenty of soap and water for at least 15 utes while removing contaminated clothing and shoes. Get medical if irritation develops or persists. |
| Ingestion: | |
| cup | NOT induce vomiting. If victim is conscious and alert, give 2-4 fulls of milk or water. Get medical aid immediately. |
| Inhalation | |
| give | nove from exposure to fresh air immediately. If not breathing, e artificial respiration. If breathing is difficult, give oxygen. medical aid. |
| Notes to | Physician: |
| | at symptomatically and |
| Antidote: | |
| | use of an iron chelator should be determined only by qualified lical personnel. |
| SECTION 5 | FIRE FIGHTING MEASURES |
| General Ir | oformation: |
| As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is noncombustible. Extinguishing Media: | |
| 0 | extinguishing media most appropriate for the surrounding fire. |
| SECTION 6 | ACCIDENTAL RELEASE MEASURES |
| General Ir | formation: Use proper personal protective equipment as indicated in Section 8. |
| Spills/Lea | |
| | uum or sweep up material and place into a suitable disposal tainer. |
| SECTION 7 | HANDLING AND STORAGE |

18511 April 5, 2012 Handling: Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood. Storage: Store in a cool, dry place. Store in a tightly closed container. Corrosives area. _____ EXPOSURE CONTROLS, PERSONAL PROTECTION SECTION 8 _____ Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure. Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary. _____ PHYSICAL AND CHEMICAL PROPERTIES SECTION 9 _____ Physical State: Granules ochre Appearance: Odor: Not available. pH: Not available Vapor Pressure: Not available.

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Viscosity: Not available. 280 - 285 deg C @ 760.00mm Hg Boiling Point: Freezing/Melting Point: 37 deg C Autoignition Temperature: Not available. Flash Point: Not available. Explosion Limits, lower: Not available. Not available. Explosion Limits, upper: **Decomposition Temperature:** Solubility: 920 G/L IN WATER (20-C)

| Specific Gravity/Density: Molecular Formula: Molecular Weight: | | FeCl3.6H2O 270.29 | |
|---|-----------|---|--|
| SECTION 10 | STABILITY | AND REACTIVITY | |
| Chemical Stability: Stable under normal temperatures and pressures. Conditions to Avoid: Incompatible materials, exposure to moist air or water. Incompatibilities with Other Materials: Strong oxidizing agents, allyl chloride, potassium, sodium. Hazardous Decomposition Products: Hydrogen chloride. Hazardous Polymerization: Will not occur. | | | |
| SECTION 11 | TOXICOLO | GICAL INFORMATION | |
| RTECS#: CAS# 10025-77-1 unlisted. LD50/LC50: Not available. Carcinogenicity: Iron(III) chloride hexahydrate, pure, granulated - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. Other: See actual entry in RTECS for complete information. | | | |
| SECTION 12 | ECOLOGIC | AL INFORMATION | |
| Ecotoxicity: Invertebrate toxicity: EC50 (2 and 4 day Aselllus aquaticus 183 and 124 mg/l respectively EC50 (2 and 4 day) Crangonyx pseudogracilis 160 and 120 mg/l respectively [Martin, T. R. et al Water Res. 1986, 20(9), 1137-1147] | | | |
| | | CONSIDERATIONS | |
| Dispose of in a manner consistent with federal, state, and local regulations. | | | |
| | | T INFORMATION | |
| H. U | | CORROSIVE SOLID, ACIDS, INORGANIC,N.O.S. (Corrosive substances) 0 | |

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- IMO Shipping Name: CORROSIVE SOLID, ACIDS, INORGANIC,N.O.S. Hazard Class: 8 (Corrosive substances) UN Number: 3260 Packing Group:
- RID/ADR Shipping Name: CORROSIVE SOLID, ACIDS, INORGANIC,N.O.S. Hazard Class: 8 (Corrosive substances) UN Number : 2586 Packing Group:

SECTION 15 REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

- R 22 Harmful if swallowed.
- R 34 Causes burns.

Safety Phrases:

S 25 Avoid contact with eyes.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 10025-77-1: No information available.

United Kingdom Occupational Exposure Limits

Canada

None of the chemicals in this product are listed on the DSL/NDSL list.

CAS# 10025-77-1 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 10025-77-1: OEL-DENMARK:TWA 1 mg(Fe)/m3 JANUARY 1993 OEL-FINLAND:TWA 1 mg(Fe)/m3 JANUARY 1993

OEL-THE NETHERLANDS:TWA 1 mg(Fe)/m3 JANUARY 1993

OEL-SWITZERLAND:TWA 1 mg(Fe)/m3 JANUARY 1993

OEL-UNITED KINGDOM:TWA 1 mg(Fe)/m3;STEL 2 mg(Fe)/m3 JANUARY 1993 US FEDERAL

TSCA

CAS# 10025-77-1 is not on the TSCA Inventory. It is a hydrate and exempt from TSCA Inventory requirements (40CFR720.3(u)(2)).

SECTION 16 OTHER INFORMATION

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REFERENCES:

- The Merck Index 14 edition, Monographs No. 4019

- Chemical Risk Information Platform (CHRIP)

- Information about the status of the implementation of GHS in Japan (ID= 831)

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

Junsei Chemical Co.,Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.