

Safety Data Sheet

1. Chemical product and company identification

Product name : Ferric citrate

Company information

Name of manufacturer : KANTO CHEMICAL CO., INC.
Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, JP
Name of section : Reagent Division, Food Science Section
Telephone number : +81-3-6214-1093
Facsimile number : +81-3-3241-1054
Mail address : food-info@kanto.co.jp
Reference No : 58005
Recommended uses and restrictions : Food additives

2. Hazards identification

GHS classification

Health hazards Skin corrosion/irritation Category 2
 Specific target organ toxicity Category 3 (respiratory tract irritation)
 (single exposure)

Hazard
pictograms



Signal word : Warning

Hazard statements : Causes skin irritation
May cause respiratory irritation

Precautionary statements

Prevention : Avoid breathing dust.
Wash hands, forearms and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response : IF ON SKIN: Wash with plenty of water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.

Storage : Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.



3. Composition/information on ingredients

Distinction of substance or mixture : Substance

Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
Iron(III) citrate n-hydrate	100	FeC ₆ H ₅ O ₇ · nH ₂ O	Listed	219-045-4	2338-05-8

*Concentration : 15.0 – 20.0% (as Fe).

4. First aid measures

First aid measures

First-aid measures after inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.

First-aid measures after skin contact : Wash the affected areas under running water.

First-aid measures after eye contact : Wash the affected areas under running water.

First-aid measures after ingestion : Give the victim water or salt water and make him vomit. Get medical attention.

Personal Protection in First Aid and Measures : Rescuers should wear proper protective equipment like rubber gloves, goggles.

5. Fire fighting measures

Suitable extinguishing media : Water, carbon dioxide, dry chemical powder, foam, dry sand

Unsuitable extinguishing media : None

Firefighting instructions : Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.

Dry chemical powder, carbon dioxide or dry sand should be used for small fires. Foam extinguisher is effective for a large scale fire.

Personal protection (Emergency response) : Firefighters should wear protective equipment.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures : Wear proper protective equipment and avoid contact with skin and inhalation of dust. Conduct operations from upwind and evacuate people downwind.

Environmental precautions

Environmental precautions : Attention should be given to avoid damage to the environment by flowing of spillage to rivers.

Methods and Equipment for Containment and Cleaning up

For containment : Sweep up in a chemical waste container. Flush contaminated area with copious amounts of water.



7. Handling and storage

Handling

- Technical measures : Wear appropriate protective equipment to avoid contact with skin or inhalation of dust.
- Precautions for safe handling : Avoid formation of dust and aerosols.

Storage

- Storage conditions : Store in a dark, cool place and tightly closed.
- Material used in packaging/containers : Glass, polyethylene, polypropylene.

8. Exposure controls / Personal protection equipment

ACGIH TWA	1 mg/m ³ (as Fe)
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- Appropriate engineering controls : Install a local ventilation system in case of dusty condition.

Protective equipment

- Respiratory protection : If necessary, wear dust mask
- Hand protection : Impervious protective gloves
- Eye protection : Safety goggles
- Skin and body protection : Protective clothing, protective boots

9. Physical and chemical properties

- Physical state : Solid
- Color : Brown - dark orange
- Odor : Odorless
- pH : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : 200 - 250 ° C
- Decomposition temperature : It becomes 1.5 hydroxide at 130 °C and becomes anhydrous at 150 °C.
- Flammability (solid, gas) : Noncombustible
- Flammability (solid, gas) : Flammable solid
- Vapor pressure : No data available
- Relative density : ≈ 1.8
- Density : No data available
- Relative gas density : No data available
- Solubility : Water : Practically insoluble. Soluble in hot water. Organic solvents; Insoluble in ethanol.
- Partition coefficient n-octanol/water (log Pow) : No data available
- Explosive limits (vol %) : No data available
- Viscosity, kinematic: : No data available
- Particle characteristics : No data available



10. Stability and reactivity

Reactivity	: It is highly photosensitive and decomposes by light.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: May react violently when in contact with oxidizing substances.
Conditions to avoid	: Light, heat.
Incompatible materials	: Oxidizing substances.
Hazardous decomposition products	: Carbon monoxide, iron oxides.

11. Toxicological information

Acute toxicity (oral)	: Classification not possible
Acute toxicity (dermal)	: Classification not possible
Acute toxicity (inhalation)	: No classification (gas) Classification not possible (vapor) Classification not possible (dust, mist)
Skin corrosion/irritation	: Causes skin irritation There is no this product data. But soluble iron salt is supposed to indicate the skin irritation (ACGIH-TLV). It was classified into category 2.
Serious eye damage/irritation	: Classification not possible May cause eye irritation.
Respiratory sensitization	: Classification not possible
Skin sensitization	: Classification not possible
Germ cell mutagenicity	: Classification not possible
Carcinogenicity	: Classification not possible
Reproductive toxicity	: Classification not possible
STOT-single exposure	: May cause respiratory irritation There is no this product data. Based on the evidence that soluble iron salts are respiratory tract irritants (ACGIH-TLV), it was classified into category 3 (respiratory tract irritation). The main symptoms caused by overdose of medical iron preparations are gastrointestinal symptoms such as vomiting, diarrhea, and bloody stool due to gastric mucosal irritation. In addition, movement disorders, decreased blood pressure, etc. are observed. Iron poisoning is less likely to occur in adults, but in children, oral administration of 1 g of iron (II) sulfate causes toxicity.
STOT-repeated exposure	: Classification not possible
Aspiration hazard	: Classification not possible

12. Ecological information

Ecotoxicity

Aquatic acute	: Classification not possible
Aquatic chronic	: Classification not possible

Persistence and degradability

No additional information available

Bioaccumulative potential

No additional information available



Mobility in soil

No additional information available

Hazardous to the ozone layer

Ozone : Classification not possible

13. Disposal considerations

Ecology - waste materials : Bury in a landfill site approved for the disposal of chemical and hazardous wastes. Or entrust approved waste disposal companies with the disposal.

Contaminated container and packaging : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information**International Regulations****Transport by sea(IMDG)**

UN-No. (IMDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Packing group (IMDG) : Not applicable
Transport hazard class(es) (IMDG) : Not applicable

Air transport(IATA)

UN-No. (IATA) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Packing group (IATA) : Not applicable
Transport hazard class(es) (IATA) : Not applicable

Marine pollutant : Not applicable

15. Regulatory information

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

16. Other information

Data sources : Dictionary of Organic Compounds, The society of Synthetic Organic Chemistry, Kodansha Ltd.(1985).
Encyclopaedia Chimica, Kyoritsu Shuppan Co, Ltd.(1963).
Handbook of 17221 Chemical Products, The Chemical Daily Co.(2021).
NITE Chemical Risk Information Platform (NITE-CHRIP), National Institute of Technology and Evaluation.

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee the properties of the product. The Safety Data Sheet(SDS) is prepared based on JIS Z7253.

