



FERRIC CHLORIDE TS ACC. TO USP

MATERIAL SAFETY DATA SHEET SDS/MSDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Ferric Chloride TS acc. to USP

Product Code : 834325

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Central Drug House (P) Ltd
7/28 Vardaan House
Ansari Road Daryaganj
New Delhi -110002
INDIA

Telephone : +91 11 49404040

Email : care@cdhfinechemical.com

1.4 Emergency telephone number

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Corrosive to metals (Category 1), H290

Skin irritation (Category 1A), H314

Eye irritation (Category 1), H318

Germ Cell Mutagenicity (Category 2), H341

Specific target organs/systemic toxicity following single exposure (Category 2), H371

Hazardous to the Aquatic Environment (Chronic) (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Warning

Hazard statement(s)

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

H318

Causes serious eye damage.

H341

Suspected of causing genetic defects.

| | |
|--------------------------------|--|
| H371 | May cause damage to organs. |
| H402 | Harmful to aquatic life. |
| Precautionary statement(s) | |
| P201 | Obtain special instructions before use. |
| P234 | Keep only in original container. |
| P260 | Do not breathe fumes, mist, vapors, or spray. |
| P264 | Wash arms, hands and face thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves and eye protection. |
| P301 + P330 + P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. |
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P311 | IF exposed or concerned: Call a POISON CENTER or physician. |
| P308 + P313 | IF exposed or concerned: Get medical attention. |
| P321 | Specific treatment (Wash areas of contact with water). |
| P363 | Wash contaminated clothing before reuse. |
| P390 | Absorb spillage to prevent material damage. |
| P406 | Store in corrosive resistant container with a resistant inner liner. |
| P501 | Dispose of contents in accordance with local, state, federal and international regulations. |
| Supplemental Hazard Statements | none |

2.3 Other hazards

The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

SECTION 3: Composition/information on ingredients

3.1 Mixtures

Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component | Formula | Molecular Weight | CAS No. | weight % |
|-----------------------------|--------------------------------------|------------------|------------|----------|
| Water | H ₂ O | 18.01 g/mol | 7732-18-5 | 91.82 % |
| Ferric Chloride Hexahydrate | FeCl ₂ ·6H ₂ O | 270.30 g/mol | 10025-77-1 | 8.18 % |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled

Remove person to fresh air and keep comfortable for breathing.

In case of skin contact

Take off immediately all contaminated clothing. Rinse skin with water. May cause irritation, redness, and pain.

In case of eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation, redness, pain, and tearing.

If swallowed

Rinse mouth. Do NOT induce vomiting. Dilute with water or milk. Call a physician if necessary.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if ingested. If ingested, do not induce vomiting. Dilute with water and call a physician. Wash areas of contact with plenty of water. For eyes, get medical attention. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause irritation, redness, and pain. CHRONIC EFFECTS / CARCINOGENICITY: Repeated ingestion of large doses may cause liver damage.

4.3 Indication of any immediate medical attention and special treatment needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water).

SECTION 5: Firefighting measures

5.1 Extinguishing media

Use any means suitable for extinguishing surrounding fire.

5.2 Special hazards arising from the substance or mixture

Not considered to be a fire or explosion hazard.

5.3 Advice for firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective gloves and eye protection.

6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3 Methods and materials for containment and cleaning up

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse unless there are regulations prohibiting this practice due to the iron content. Always dispose of in accordance with local regulations.

6.4 Reference to other sections

See section 8. Exposure controls/personal protection

SECTION 7: Handling and storage

7.1 Precautions for Safe Handling and Storage Conditions

Store in corrosive resistant container with a resistant inner liner. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|---|
| a) Appearance | Form: liquid Colour: Bright orange/brown |
| b) Odour | No data available |
| c) Odour Threshold | No data available |
| d) pH | Acidic |
| e) Melting point/freezing point | Approximately 0°C |
| f) Initial boiling point and boiling range | Approximately 100°C - Approximately 100°C |
| g) Flash point | No data available |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | No data available |
| k) Vapour pressure | No data available |
| l) Vapour density | No data available |
| m) Relative density | No data available |
| n) Water solubility | Soluble in water |
| o) Partition coefficient: n-octanol/water | No data available |
| p) Auto-ignition temperature | No data available |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Keep only in original container. Strong oxidizers, alkalis.

10.6 Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Serious eye damage/eye irritation

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

Suspected of causing genetic defects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Carcinogenicity

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.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed or concerned: Call a POISON CENTER or physician. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

SECTION 12: Ecological information

12.1 Toxicity

Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6 Other adverse effects

Environmental precautions: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: - 2582

IMDG: - 2582

IATA: - 2852

14.2 UN proper shipping name

ADR/RID: FERRIC CHLORIDE SOLUTION

IMDG: FERRIC CHLORIDE SOLUTION

IATA: Ferric Chloride Solution

14.3 Transport hazard class(es)

ADR/RID: - 8

IMDG: - 8

IATA: - 8

14.4 Packaging group

ADR/RID: - III

IMDG: - III

IATA: - III

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H341 Suspected of causing genetic defects.

H371 May cause damage to organs.

H402 Harmful to aquatic life.

Further information

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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.