



FeCl_2 FERROUS CHLORIDE

(Produced from Titanium Ore)

Superior Quality; Highly cost effective

CMRL



Best Water Treatment Chemical for

Decolourisation • COD Reduction • BOD Reduction • Sedimentation • Deodourisation

► From Nature ► With Nature ► Towards Nature



Chemical Identity >

Chemical Name	- Ferrous Chloride
Chemical Classification	- Inorganic Chemical
Synonyms	- Iron Chloride, Iron Dichloride, Iron Protochloride
CAS NO.	- 7758 - 94 - 3
HS Code No.	- 28273990

Physical Properties >

Physical State	- Aqueous Solution
Specific Gravity	- 1.20 min.
Molecular Formula	- FeCl_2
Molecular Weight	- 126.75

Chemical Properties ▾

Effective Reducing Agent

Decomposed to Fe_2O_3 at elevated temperature in air

Reacts with Alkalies and Alkaline earth carbonates

Shows typical reactions of Ferrous Salt

Hydrolyses in water at a pH 5.5 and above

Product Specification

Grade I Specification - Ferrous Chloride with
15 - 20 gp1 Hydrated Titania

FeCl_2 - 20% min.

FeCl_3 - 8% max.

Free Acidity as HCl - 8% max.

Specific Gravity - 1.20 min.

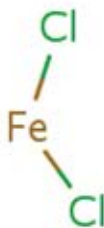
Grade II Specification

FeCl_2 - 30% min.

FeCl_3 - 1% max.

Free Acidity as HCl - 1% max.

Specific Gravity - 1.30 min.



FeCl_2 Grade 1



FeCl_2 Grade 11

NSF Certification

CMRL Ferrous Chloride is certified by NSF international which is accredited by WHO for drinking water safety and treatment.

Packing

In 300 Kg HDPE Barrels/in 50 Kg HDPE

Jerry Cans/ Bulk in Tanker.

Storage and Handling

Ferrous Chloride is corrosive to most metals. Hence HDPE, Poly Propylene, Plastic or Rubber bonded metal containers are recommended for storage. Ferrous Chloride can be handled with pumps coated or moulded out of Poly Propylene, Rubber or Ceramic.



Uses

- > Treatment of Effluent from Paper Mills - To Decolourise, reduce BOD and COD
- > Treatment of Sewage and highly polluted river/lake/canal/pond (eg: Water Purification done by CMRL in Pampa River)
- > Treatment of effluent containing Hexavalent Chromium - Ferrous Chloride is the best reagent to reduce Hexavalent Chromium to Trivalent and make it insoluble in Water
- > Treatment of effluent from Bleaching and Dyeing Units - Ferrous Chloride readily undergoes oxidation and the Ferric Chloride thus formed hydrolyses to Ferric Hydroxide in a massive gelatinous form which adsorbs the colouring ions by the coagulative action and settle down easily, leaving the supernatant solution crystal clear.
- > Treatment of effluent from Leather Tanneries - During chrome tanning of leather, chromium in the form of Hexavalent chromates get into the effluent and the Ferrous Chloride reduces it to the Trivalent Form which gets precipitated out at pH 5.3 and above
- > Ferrous Chloride solution is used as a precipitating and flocculating agent with reducing properties. It is especially effective for the treatment of water containing sulphides and mercaptans.
- > Ferrous Chloride finds extensive applications for the production of several iron compounds

Shelf Life
TWO Years

Transport Classification

IMCO Class No. - 8
UN NO. - 1760
Packing Group - II

Health Hazard Data

In case of contact with skin, wash with profuse quantity of water. In case of splashing into the eye, wash with water and see a physician. On swallowing, administer gastric lavage followed by saline catharsis and anodyne.

Personal Protection

Avoid skin and eye contact. Use goggles, apron and gloves when handling.

Spills and Leakage

Cover spills with sufficient quantity of burnt/quick Lime, Sodium Bicarbonate or Caustic Soda. Spread the material on the ground and disperse by washing with plentiful water to sewer

Advantages of using Ferrous Chloride for Water Purification

- ▶ Coagulant of choice for Textile Processing Units for their effluent treatment due to high efficiency to remove colour, suspended solids and toxic dissolved solids.
- ▶ Reduction in cost of treatment without any compromise in clarity and quality of treated water.
- ▶ Sludge formation is less in Ferrous Chloride – Lime treatment as against Ferrous Sulphate – Ferrous Sulphate will form insoluble gypsum (Calcium Sulphate) with Lime and hence, sludge formation.
- ▶ Comes as Ready To Use solution form. No need of solid handling to prepare the treatment chemical as in the case of Ferrous Sulphate.
- ▶ Is a clear solution, where as Ferrous Sulphate crystals will invariably contain insoluble materials, which could pose problems of handling.
- ▶ Exhibits higher rate of reaction compared to Ferrous Sulphate.
- ▶ Effluent treatment with Ferrous Chloride obviates the use of acid used to bring down pH.
- ▶ Usage of Sulphate is not advisable for RO process; hence treatment with Ferrous Chloride is recommended for further purification of treated effluent in R.O. plant.

Ferrous Chloride | An NSF Certified wonder chemical for water treatment

Holliness of River Pampa retrieved (Purification of a river)

As per the advice of Govt. of Kerala, CMRL purified river Pampa where about 60 million Sabarimala pilgrims take holy bath in a season extending two months. The programme was successfully implemented with the Co-operation of Travancore Devaswom Board, Irrigation Dept. Forest Dept. Health Dept., under the guidance of Kerala State Pollution Control Board. CMRL supplied Ferrous Chloride and deputed dedicated technical people for the successful completion of the programme. Spreading of contagious disease among the habitats in the down stream region of the river due to pollution could be controlled by treating the river water with Ferrous Chloride.

Collaboration With CPPRI

CMRL signed an MOU for mutual cooperation with Central Pulp and Paper Research Institute (CPPRI), a national research institute for developing a suitable technology using Ferrous Chloride for colour removal from the effluent and treatment of black liquor from the paper mills to comply with Charter on Corporate Responsibility for Environment Protection. Joint R&D activities are in progress.



Cochin Minerals and Rutile Limited

(An ISO 9001:2008 company) | A model eco-friendly company

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