



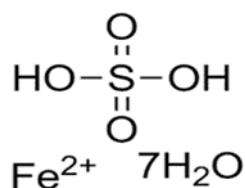
TECHNICAL DATA SHEET



FERROUS Sulphate Heptahydrate

Properties of Ferrous sulphate:

Trade Name:	Ferrous Sulphate
Synonyms:	Iron Sulphate, Iron Sulphate Heptahydrate, Pickling Liquor, green-vitriol, copperas
Chemical Family:	Transition Metal Sulphates
CAS Number:	7782-63-0
UN Number:	3077 (Solid) or 3082 (Liquid)
EEC Number:	231-753-5
ATC Code:	B03AA07



Chemical Formula: $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$

Assay % by Weight: 90% minimum purity

Appearance: Brown/Dark Blue/Green to off-white/Dark grey

Molecular Weight: 278.02 g/mol

Physical State & Appearance: Form: Crystalline Solid or available as a Liquid Slurry

Colour: Brown/Dark Blue/Green to off-white/Dark grey

Odour: Odourless

pH: 3,5 – 5 (5% solution)

Boiling Point: >300 °C (400 °C decomposes)

Melting Point: 64 °C

Density/Specific gravity @25°C: 1.97 /m³

Thermal Decomposition: Not Available

Bulk Density: 1.500 kg/m³

Vapour Pressure: 14.6 mmHg at 25 °C

Solubility in water (50 °C): 48.6g / 100 g water

Insoluble in: Alcohol

Product Safety: See our relevant Material Safety Data Sheet

PLEASE NOTE: This product is not for human or animal consumption.



Technical Data Sheet



- **Uses:** Used as a lawn conditioner and fertilizer, animal feed, medicine, water purification as a substitute for aluminium sulphate, oxidation of Chrome ⁶⁺, removing of arsenic in contaminated water, sewage treatment, catalyst & food additive. Industrially, ferrous sulphate is mainly used as a precursor to other iron compounds. It is a reducing agent, mostly for the reduction of chromate in cement. It is the main active ingredient in many commercial moss killer products. Used in the manufacture of inks including iron gall ink. It is used as a mordant for wool dyeing. Ferrous sulphate can also be used to stain concrete and some limestones and sandstones a yellowish rust colour. Woodworkers use ferrous sulphate solutions to colour maple wood a silvery hue. In horticulture it is used for treating iron chlorosis (yellowing of foliage caused by iron deficiency). Although not as rapid-acting as iron chelate, its effects are longer-lasting. It can be mixed with compost and dug into the soil to create a store which can last for years. Ferrous sulphate is sometimes added to the cooling water flowing through the brass tubes of a turbine condenser. It forms a corrosion-resistant, protective coating on the inside of the tube. It is used as a traditional method of treating wood panels on houses, either alone dissolved in water or as a component of water-based paint. It is also used to produce magnetic ferric oxide.
- **Application:** Rates of application can vary greatly depending on the desired effect and on the specific application. No two sets of circumstances will be the same and therefore we recommend consulting an expert or contacting the manufacturer prior to use.
- **Information:** The following documents are available from the manufacturer upon request:
 - **FERROUS Sulphate Product Catalogue** (Doc No. FSM-PLT-001-R10)
 - **Selling Specifications FERROUS Sulphate Solid** (Doc No. FSM-PLT-001-R05)
 - **MATERIAL Safety Data Sheet FERROUS Sulphate Solid** (Doc No. FSM-PLT-001-R01)
 - **Selling Specifications FERROUS Sulphate Liquid** (Doc. No. FSM-PLT-001-R06)
 - **MATERIAL Safety Data Sheet FERROUS Sulphate Liquid** (Doc No. FSM-PLT-001-R02)
 - **CERTIFICATE of Analysis FERROUS Sulphate Solid** (Doc No. FSM-PLT-001-R03)

Disclaimers: Because of the nature of our manufacturing processes, our product does not contain any plant and/or animal products. It is the responsibility of our customers to determine that their use of our product is safe, lawful and technically suitable in their intended applications. Because of possible changes in law and regulations, as well as possible changes in our products, we cannot guarantee that the status of this product will remain unchanged. We, therefore, recommend that customers continuing to use our products verify their status periodically.

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