

TECHNICAL BULLETIN



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FERRIC SULPHATE 40% Coagulation Agent for Water Treatment

MATERIAL & FUNCTION

FERRIC SULPHATE 40% is a liquid coagulation agent for the treatment of wastewater prior to disposal. **FERRIC SULPHATE 40%** coagulates colloidal and semi colloidal solids as well as phosphate and other anions. In addition it also assists in dewatering sludge due to the density of the floc formed.

FERRIC SULPHATE is also useful in reducing organic and inorganic soluble and suspended matter, reducing COD/BOD and "splitting" emulsions. However, generalisations can not be made and **FERRIC SULPHATE 40%** should be evaluated for each use.

APPEARANCE

Dark brown, heavy liquid.

APPLICATION

FERRIC SULPHATE 40% can be added manually or automatically dosed into water treatment tank at the secondary treatment stage. Rates of addition can be determined by the user, refer to Technical Data Sheet "**FERRIC SULPHATE 40% - User Evaluation Information**".

USER EVALUATION INFORMATION

To evaluate your optimum dose rate for using **FERRIC SULPHATE 40%** in your water treatment system, a laboratory trial should be undertaken. The primary factors affecting **FERRIC SULPHATE** as a coagulant are:-

- 1) Dose rate of Coagulant
- 2) pH of filtered water
- 3) Floc Size
- 4) Turbidity, BOD and suspended solids of clarified water.

OUTLINE OF TESTING

1. Prepare a 10 mg/L solution of **FERRIC SULPHATE 40%** by diluting 10 gm to 1000 ml of water, remove a 1ml sample and dilute to 1L with water.

2. Perform a jar test with a known quantity of wastewater using a flocculator or “gang” stirrer. Add the dose of **FERRIC SULPHATE** dilutions from (1) above and mix at 100 rpm for 2 minutes. Slow the stirrer to 25 rpm and mix for 10 minutes then switch off the stirrer and allow to settle for 15 minutes. The volume or weight of the floc is the primary determinant for the effectiveness of the process.
3. Tests over pH ranges, typically 5 to 9 should be used in combination with the dose rate trials in section 2. Any general-purpose alkali may be used to adjust pH.
4. A matrix results based on pH and dose rate will dictate the optimum use rate of **FERRIC SULPHATE**.

PACKAGING

1000 Litre container

IMPORTANT NOTICE TO CUSTOMER

*Since the use of this product is beyond the control of either seller or manufacturer, their only obligation shall be to replace any quantity of product which is proven defective. They cannot assume any risk or liability in excess of the purchase price of the product itself, which does not include labour or any consequential damages resulting from the use of this product. Determining the suitability of this product for any intended use shall be solely the responsibility of the user. **ALWAYS TEST FIRST.***