

WATER SPECIALISTS TECHNOLOGIES LLC

1515 Kastner Place

*Phone: 407-321-7910

*Email: info@waterspecialists.biz

Sanford, Florida 32771 USA

*Fax: 407-321-3098

*Website: www.waterspecialists.biz

C-05J COAGULANT

C-05J is prepared by reacting sulfuric acid with a locally mined, high purity iron ore to produce an iron sulfate solution. This solution is then oxidized, using a patented process, until essentially all ferrous iron is converted to ferric iron. (USA Patent NO. 4,707,349 11/17/87) It is stable for indefinite periods. The ferric iron is then polymerized to form a very effective coagulant.

USES

C-05J is an excellent, full range coagulant for use in water purification. It is also used as a sludge conditioner and phosphate removing agent. Plant tests using liquid material have indicated higher performance than that of granular material. This is attributed in part to two factors: iron is completely dissolved, and in conjunction with flash-dispersion devices, the liquid coagulant is more effective.

TYPICAL PROPERTIES

As noted in the comparison below, our **C-05J** meets both Codex Limits and the AWWA proposed standards. The lower free acid reduces lime demand and permanent hardness levels the freedom from insoluble allows easy handling and metering. The lower ferrous iron content obviates the need for chlorine or other oxidizers in the system to avoid iron carry through. Liquid **C-05J** will not freeze in the continental United States.

	<u>Codex Limits</u>	<u>AWWA Standard</u>	<u>Typical Analysis</u>
Ferric%		9.0 min	12.25*0.25
Ferrous Iron, %		1.5 max	0.15
Specific Gravity			1.58
Free Acid, %		2.0 max	0.5
Insolubles, %		0.1 max	0.1
Arsenic, mg/kg	50 max		0.65
Cadmium, mg/kg	10 max		0.9
Chrome, mg/kg	50 max		2.0
Lead, mg/kg	50 max		6.0
Mercury, mg/kg	2 max		0.05
Selenium, mg/kg	10 max		0.5
Silver, mg/kg	50 max		1.2
Total Organic Carbon, mg/kg			10.0

FEEDING

The liquid material provides a convenient, reliable and economical feeding process, because of the extreme simplicity and economy of liquid feeding equipment, new addition points or expanded facilities can be accommodated with great ease.

Educators and rotameter are the recommended feeding equipment because they offer the greatest economy in both capital and maintenance cost and generally provide adequate reliability. Where greater reliability and lower surveillance is desired, diaphragm feed pumps or rotodips are recommended.

In small facilities feeding out of a drum provides a reliable and economical method. The drum itself can be used as a day tank where the feed rate is accurately determined by changes in drum outages. Granular material, on the other hand, is inherently more difficult to estimate changes in inventory.

AVAILABILITY

C-05J is readily available for shipment in 5-gallon pails, 55-gallon drums and 275 gallon totes.

HANDLING AND SAFETY

C-05J can be handled in 316 Stainless Steel or plastic material such as PE, PVC CPVC, PP, FRP, Teflon, etc. It is moderately corrosive and should not be used where it would come in contact with mild steel, aluminum, or brass. Goggles and gloves should be worn when transferring material. Because **C-05J** is a liquid, staining and hygiene problems created by dust from granular materials are eliminated. The handling and disposal of bags is also eliminated. Surfaces splashed with **C-05J** solution should be washed down to avoid mild chemical attack. Material Safety Data Sheet can be supplied upon request.