WST PRODUCT INFORMATION

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-7 COAGULANT

Technical Data

Product Name:	C-7
Chemical Formula:	$FE_2(SO_4)_3$
Synonyms:	Iron (III) Sulfate, Iron Persulfate
Chemical Family:	Iron Salt Sulfate
Molecular Weight:	399.88
NIOSH RTECS NO:	8505000
Latest Revision Date:	1-15-99

DESCRIPTION

C-7 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 al l ferrous iron is converted to ferric iron. (USA Patent NO. 4,707,349 11/17/87) It is stable for indefinite periods.

USES

Liquid Ferric Sulfate 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-7 meets both Codex Limits and the AWWA proposed standards. The lower free acid reduces lime demand and permanent hardness levels. The freedom from insol ubles allows easy handling and metering. The lowered ferrous iron content obviates the need for chlorine or other oxidizers in the system to avoid iron carry through. Liquid Ferric Sulfate will not freeze in the continental United States.

	Codex Limits	AWWA Standard	Specification Analysis
Ferric, % ±1.25		9.0	10.25
Ferrous Iron, % max.		1.5	0.15
Specific Gravity			1.44
Free Acid, % max.		2.0	0.5
Insolubles, % max.		0.1	0.1
Arsenic, mg/kg max.	50		0.65
Cadmium, mg/kg max.	10		0.9
Chrome, mg/kg max.	50		2.0
Lead, mg/kg max.	50		6.0
Mercury, mg/kg max.	2		0.05
Selenium, mg/kg max.	10		0.5
Silver, mg/kg max.	50		1.2
Total Organic Carbon, mg/kg max.			10.0

04/01