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Fluorosilicic Acid Product Data Sheet

Revision Date: 3/5/13

Description

Pencco's Fluorosilicic Acid (FSA), also known as Hydrofluosilicic acid (HFS), is a water-white to a straw-yellow colored solution with the chemical formula H_2SiF_6 . Fluorosilicic Acid is manufactured from the mineral apatite, which is mined for its high phosphate content. The phosphate is used widely in the fertilizer industry and the fluoride recovered from the apatite is used to produce Fluorosilicic Acid. FSA produced in this way is very pure and cost effective.

Application

Fluorosilicic Acid is the chief additive used for water fluoridation in the United States. The Center for Disease Control lists the fluoridation of water as one of the ten great public health achievements of the 20th century.

Typical Analysis

Concentration (% H_2SiF_6).....	23%
Density (lbs/gal).....	10.2
Specific Gravity.....	1.2
Free Acid.....	<1.0%
pH.....	1.2
Appearance.....	water-white to straw yellow
Odor.....	pungent
Freezing Point.....	4°F

Health and Safety

Fluorosilicic Acid can cause burns to the skin and eyes. Ensure that individuals handling Fluorosilicic Acid have been fully trained regarding the MSDS, along with PPE requirements and specific operational procedures. For a MSDS, call 979-885-0005 or 800-864-1742. In the event of an emergency, call 24 hr. CHEMTREC: 800-424-9300.

Certifications

Fluorosilicic Acid is ANSI/NSF Standard 60 certified for use in potable water treatment and also meets or exceeds all AWWA standards.

Product Handling and Shipping

Fluorosilicic Acid is shipped in railcars and tank trucks. Suitable materials of construction include PVC, polypropylene, polyethylene, and Teflon. It is not compatible with metals and most fiberglass resins. It can be used with diaphragm metering pumps, providing the materials of construction are compatible. No dilution or preparation necessary.

DOT Classification: Fluorosilicic Acid

Hazard Class: 8 DOT ID Number: UN 1778 Packing Group: II

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