

**Section 1. Product and Company Identification**

Product Identification: 1000 µg/mL Silica in Water  
SDS Number: 1000SIO2-4F  
Recommended use: For Laboratory Use  
Company Identification: High-Purity Standards  
P.O. Box 41727  
Charleston, SC 29423  
Telephone: (843) 767-7900  
FAX: (843) 767-7906

**Section 2. Hazard Identification****Classification:**

None

**Labeling:**

Symbol: None

Signal word: None

Hazard statement: None

Precautionary statement: None

**Section 3. Chemical Composition**

Component	CAS/EINECS Registry #	Percent Concentration
Ammonium Hexafluorosilicate ( $(\text{NH}_4)_2\text{SiF}_6$ )	16919-19-0/240-968-3	0.1 (as $\text{SiO}_2$ )
Water, deionized	7732-18-5/231-791-2	Balance

**Section 4. First Aid Measures**

**IF SWALLOWED:** Rinse mouth. Exposure to fluoride compounds can result in systemic toxic effects on the heart, liver, and kidneys. It may also deplete calcium levels in the body leading to hypocalcemia and death. Call a physician/doctor if you feel unwell.

**IF ON SKIN (or hair):** May cause moderate to severe irritation. Remove contaminated shoes and clothing. Flush contaminated area with plenty of water for at least 15 minutes. Apply calcium gluconate gel if available. Call a physician if irritation develops.

**IF INHALED:** Remove to fresh air. Not likely to be hazardous by inhalation.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**Section 5. Fire Fighting Measures**

Fire & Explosion hazards: Not considered to be a fire or explosion hazard.

Extinguishing Media: Use any extinguishing media that is suitable for the surrounding area.

Specific Methods: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

**Section 6. Accidental Release Measures**

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Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Do not allow to enter drainage systems or water ways. Always dispose of in accordance with local regulations.

### Section 7. Handling and Storage

Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Keep out of direct sunlight and away from heat, water, and incompatible materials. Keep container tightly sealed. Since fluorides salts are present, contact with glass should be avoided. Refer to Section 8 for personal handling instructions.

### Section 8. Exposure Controls and Personal Protection

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Personal Protection: Wear proper gloves, safety glasses with side shields, lab coat/apron.

#### Exposure Limits:

Component	ACGIH TLV	OSHA PEL
Ammonium hexafluorosilicate	N/A	N/A

### Section 9. Physical and Chemical Properties

Physical state: Liquid

Color: Clear, colorless liquid

Odor: Odorless

Odor threshold: None

pH: 3-5

Melting point: N/A

Freezing Point: N/A

Boiling Point: ~100°C

Flash point: N/A

Evaporation rate: N/A

Flammability: N/A

Explosion limits: N/A

Vapor Pressure (mm): N/A

Vapor Density (air+1): N/A

Relative density: (H<sub>2</sub>O = 1): Approximately 1.0

Solubility in H<sub>2</sub>O: Complete

Auto ignition temperature: N/A

Decomposition temperature: N/A

Molecular Weight: 60.0843 (SiO<sub>2</sub>)

### Section 10. Stability and Reactivity

Stability Indicator: YES

Conditions to Avoid: Incompatibles

Incompatibles: Organic materials, strong alkali, hydroxides, cyanides.

Hazardous Decomposition Products: None expected.

Hazardous Polymerization: Will not occur.

### Section 11. Toxicological Information

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Toxicity Data:

NH<sub>4</sub>SiF<sub>6</sub>-RTECS# VV7800000

LD50, Oral, Rat, 125 mg/kg.

#### Section 12. Ecological Information

Ecotoxicological information: No information is available on environmental toxicity for this solution.

#### Section 13. Disposal Considerations

General: Follow Federal, state and local regulations for waste.

#### Section 14. Transport Information

D.O.T. Classification: Not hazardous by DOT.

#### Section 15. Regulations (Not meant to be all inclusive-selected regulation listed)

TSCA Status: The components of this solution are listed on the TSCA Inventory.

RCRA Status: No.

SARA: No.

Risk Phrases: R 21/22 Harmful by skin contact or if swallowed.

Safety Phrases: S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

WHMIS Information (Canada): Not applicable.

#### Section 16. Other Information

HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel only. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The SDS was prepared carefully and represents the best data currently available to us; however, HPS does not certify the data on the SDS. Certified values for this material are given only on the Certificate of Analysis.

Theodore C. Rains, Ph.D.