

## Section 1. Product and Company Identification

Product Identification: 10,000 µg/mL Silicon in Water  
 MSDS Number: 10M50-4F  
 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:**

Acute Toxicity, Oral, Category 3

**Labeling:****Symbol:**

**Signal word:** Danger

**Hazard statement:** Toxic if swallowed

**Precautionary statement:** Do not eat, drink or smoke when using this product. Wash hands thoroughly after using.

## Section 3. Chemical Composition

Component	CAS/EINECS Registry #	Percent Concentration	ACGIH TLV	OSHA PEL
Ammonium Hexafluorosilicate	16919-19-0/ 240-968-3	1.0 (as Si)	Not Available	Not Available
Water, deionized	7732-18-5/ 231-791-2	Balance	Not Available	Not Available

## Section 4. First Aid Measures

**IF SWALLOWED:** Immediately call a POISON CENTER or doctor/physician. 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

**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.

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#### Section 6. Accidental Release Measures

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:

<b>Component</b>	<b>ACGIH TLV</b>	<b>OSHA PEL</b>
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: 28.086 (Si)

#### Section 10. Stability and Reactivity

Stability Indicator: YES  
Conditions to Avoid: Incompatibles  
Incompatibles: Organic materials, strong alkali, hydroxides, cyanides.  
Hazardous Decomposition Products: None expected.

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Hazardous Polymerization: Will not occur.

#### Section 11. Toxicological Information

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 iskin 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 MSDS was prepared carefully and represents the best data currently available to us; however, HPS does not certify the data on the MSDS. Certified values for this material are given only on the Certificate of Analysis.

Theodore C. Rains, Ph.D.