

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Hydrofluorosilicic Acid 23% ACS

**Synonyms:** Hydrofluorosilicic Acid

**CAS Number:** 16961-83-4

**Grade/Purity:** ACS Reagent Grade

**Product Type:** Acids

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer/Supplier:** Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574

**Information:** 512-365-6838 | [www.alliancechemical.com](http://www.alliancechemical.com)

**Emergency:** CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**Signal Word:** Danger

**GHS Pictograms:**



**Hazard Statements:**

|      |  |
|------|--|
| H314 | Causes severe skin burns and eye damage [Danger Skin corrosion/irritation] |
| H301 | Toxic if swallowed   |

**Precautionary Statements:**

|       |   |
|-------|---|
| P260, | P264, P280, P301+P330+P331, P302+P361+P354, P304+P340, P305+P354+P338, P316, P321, P363, P405, and P501 |
|-------|---|

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

| COMPONENT               | % MIN   | % MAX   | CAS #      | EINECS# / ELINCS# | FORMULA                          | MOLECULAR WEIGHT |
|-------------------------|---------|---------|------------|-------------------|----------------------------------|------------------|
| Hydrofluorosilicic Acid | 23% w/w | 23% w/w | 16961-83-4 | 241-034-8         | F <sub>6</sub> H <sub>2</sub> Si | 144.091 g/mol    |
| Water                   | 77      | 77      | 7732-18-5  | 231-791-2         | H <sub>2</sub> O                 | 18.02 g/mol      |

### 4. FIRST-AID MEASURES

|                   |  |
|-------------------|--|
| <b>Eyes</b>       | Rinse with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention immediately.                             |
| <b>Skin</b>       | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash with soap. Get medical attention immediately.                                |
| <b>Inhalation</b> | Move person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately. |
| <b>Ingestion</b>  | Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.                             |

## 5. FIRE-FIGHTING MEASURES

|                             |   |
|-----------------------------|---|
| <b>Suitable Media</b>       | Dry chemical, CO2, water spray. Use water spray to cool containers.   |
| <b>Unsuitable Media</b>     | Do not use a solid water stream as it may scatter and spread fire.    |
| <b>Protective Equipment</b> | Wear self-contained breathing apparatus and full protective clothing. |
| <b>Combustion Products</b>  | May include carbon oxides and other toxic fumes. See Section 10.      |

## 6. ACCIDENTAL RELEASE MEASURES

|                                  |   |
|----------------------------------|---|
| <b>Personal Precautions</b>      | Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.       |
| <b>Environmental</b>             | Prevent leakage or spillage from entering drains, sewers, or waterways.                                 |
| <b>Containment &amp; Cleanup</b> | Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations. |

## 7. HANDLING AND STORAGE

|                      |   |
|----------------------|---|
| <b>Safe Handling</b> | Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.                      |
| <b>Safe Storage</b>  | Store in a cool, dry, well-ventilated area. Use corrosion-resistant containers. Keep away from incompatible materials (see Section 10). Keep containers tightly closed. |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

**Occupational Exposure Limits:**

No established occupational exposure limits.

|                   |   |
|-------------------|---|
| <b>Eyes</b>       | Wear chemical safety goggles or face shield.  |
| <b>Skin</b>       | Wear chemical-resistant gloves and protective clothing.   |
| <b>Inhalation</b> | For mist or aerosol applications (e.g., spray, atomization, pressure washing), use a NIOSH-approved half-face air-purifying respirator with combination acid gas / P100 cartridges. For dust exposure, an N95 or P100 particulate filter is acceptable. Ensure local exhaust ventilation. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                            |                                  |
|----------------------------|----------------------------------|
| Appearance                 | Clear, colorless liquid          |
| Odor                       | Characteristic                   |
| Median Particle Size       | Not Applicable                   |
| Particle Size Distribution | Not Applicable                   |
| Particle Shape             | Not Applicable                   |
| Surface Area               | Not Applicable                   |
| Dustiness                  | Not Applicable                   |
| Hygroscopicity             | Not Applicable                   |
| pH                         | Not Available                    |
| Melting Point              | -37°C (-34.6°F)                  |
| Boiling Point              | 108°C (226.4°F)                  |
| Flash Point                | Not Available                    |
| Vapor Pressure             | Not Available                    |
| Specific Gravity           | 1.12                             |
| Solubility                 | Miscible with water              |
| Molecular Formula          | F <sub>6</sub> H <sub>2</sub> Si |
| Molecular Weight           | 144.091 g/mol                    |

## 10. STABILITY AND REACTIVITY

|                        |   |
|------------------------|---|
| Chemical Stability     | Stable under recommended storage conditions.                                      |
| Hazardous Reactions    | None under normal processing conditions.  |
| Conditions to Avoid    | Heat, sparks, open flame, and incompatible materials.                             |
| Incompatible Materials | Strong acids, strong bases, reactive metals, water (for some concentrated forms). |
| Decomposition Products | May produce carbon oxides and other toxic fumes when heated to decomposition.     |

## 11. TOXICOLOGICAL INFORMATION

Acute Toxicity: See Section 2 for GHS hazard classification.

|      |                           |
|------|---------------------------|
| IARC | Not listed as carcinogen. |
| NTP  | Not listed as carcinogen. |
| OSHA | Not listed as carcinogen. |

## 12. ECOLOGICAL INFORMATION

|                  |   |
|------------------|---|
| Ecotoxicity      | Data not available. Avoid release to the environment. |
| Persistence      | Not Available   |
| Bioaccumulation  | Not Available   |
| Mobility in Soil | Not Available   |

## 13. DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

#### 14. TRANSPORT INFORMATION

|                  |  |
|------------------|--|
| US DOT           | UN1778, Fluorosilicic acid, 8 (6.1), PG II |
| IMDG             | UN1778, Fluorosilicic acid, 8 (6.1), PG II |
| IATA/ICAO        | UN1778, Fluorosilicic acid, 8 (6.1), PG II |
| Marine Pollutant | No   |

#### 15. REGULATORY INFORMATION

Regulatory listings not yet on file in this system; consult OSHA, EPA TSCA, EPCRA TRI, and California OEHHA directly.

|              |   |
|--------------|---|
| SARA 311/312 | See Section 2 for hazard classifications. |
|--------------|---|

#### 16. OTHER INFORMATION

**Revision Date:** 05/28/2026

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