# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
HPR, Schedule 1

**Revision date** 04-Mar-2024 **Revision Number** 1

## 1. Identification

**Product identifier**

**Product Name** Silicon AA Standard: 1000 µg/mL Si in H2O [100ml bottle]

**Other means of identification**

**Product Code(s)** 5190-8308

**Recommended use of the chemical and restrictions on use**

**Recommended use** Reagents and Standards for Analytical Chemical Laboratory Use

**Restrictions on use** No information available

**Details of the supplier of the safety data sheet**

**Initial supplier identifier**

Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA

800-227-9770

**E-mail** pdl-msds_author@agilent.com

**Emergency telephone number**

**Emergency Telephone**
CHEMTREC®: 1-800-424-9300

## 2. Hazard identification

**Classification**
This product is not considered hazardous in accordance with the Canadian Workplace Hazardous Material Information System (WHMIS 2015)

**Label elements**

**Hazard statements**

This product is not considered hazardous in accordance with the Canadian Workplace Hazardous Material Information System

(WHMIS 2015)

**Other information**
No information available.

## 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

**Chemical nature** aqueous solution.

| Chemical name | CAS No. | Weight-% | Hazardous Material Information Review Act registry number (HMIRA registry #) | Date HMIRA filed and date exemption granted (if applicable) |
|---|---|---|---|---|
| Ammonium silicofluoride | 16919-19-0 | 0 - 10% | - | |

## 4. First-aid measures

**Description of first aid measures**

**Inhalation** Remove to fresh air.

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

**Skin contact** Wash skin with soap and water.

**Ingestion** Rinse mouth.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to doctors** Treat symptomatically.

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** No information available.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labelled containers.

## 7. Handling and storage

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

## 8. Exposure controls/personal protection

**Control parameters**

**Exposure Limits**

| Chemical name | Alberta | British Columbia | Ontario | Quebec |
|---|---|---|---|---|
| Ammonium silicofluoride 16919-19-0 | TWA: 2.5 mg/m³ | TWA: 2.5 mg/m³ | TWA: 2.5 mg/m³ | TWA: 2.5 mg/m³ |

**Appropriate engineering controls**

**Engineering controls** Showers
Eyewash stations
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

**Hand protection** The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear protective nitrile rubber gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

| | |
|---|---|
| **Physical state** | Liquid |
| **Appearance** | Liquid |
| **Colour** | colourless |
| **Odour** | Odourless |
| **Odour threshold** | No information available |

| **Property** | **Values** | **Remarks • Method** |
|---|---|---|
| **pH** | No data available | None known |
| **Melting point / freezing point** | 0 °C / 32 °F | None known |
| **Initial boiling point and boiling range** | 100 °C / 212 °F | None known |
| **Flash point** | No data available | None known |
| **Evaporation rate** | No data available | None known |
| **Flammability** | No data available | None known |
| **Flammability Limit in Air** | | None known |
| **Upper flammability or explosive limits** | No data available | |
| **Lower flammability or explosive limits** | No data available | |
| **Vapour pressure** | 23 hPa | @ 20°C |
| **Relative vapour density** | No data available | None known |
| **Relative density** | 0.99821 g/cm3 at 20 °C | None known |
| **Water solubility** | No data available | None known |
| **Solubility in other solvents** | No data available | None known |
| **Partition coefficient** | No data available | None known |
| **Autoignition temperature** | No data available | None known |
| **Decomposition temperature** | 100 °C / 212 °F | None known |
| **Kinematic viscosity** | No data available | None known |
| **Dynamic viscosity** | No data available | None known |

**Other information**

| | |
|---|---|
| **Explosive properties** | No information available. |
| **Oxidising properties** | No information available. |
| **Softening point** | No information available |
| **Molecular weight** | No information available |
| **VOC content** | No information available |
| **Liquid Density** | No information available |
| **Bulk density** | No information available |

## 10. Stability and reactivity

**Reactivity**

No information available.

**Chemical stability**

Stable under normal conditions.

**Possibility of hazardous reactions**

None under normal processing.
**Conditions to avoid**

None known based on information supplied.
**Incompatible materials**

None known based on information supplied.
**Hazardous decomposition products** None known based on information supplied.

## 11. Toxicological information

**Information on likely routes of exposure**

**Product Information**

| | |
|---|---|
| **Inhalation** | Specific test data for the substance or mixture is not available. |
| **Eye contact** | Specific test data for the substance or mixture is not available. |
| **Skin contact** | Specific test data for the substance or mixture is not available. |
| **Ingestion** | Specific test data for the substance or mixture is not available. |

**Symptoms related to the physical, chemical and toxicological characteristics**

| | |
|---|---|
| **Symptoms** | No information available. |

**Acute toxicity**

**Numerical measures of toxicity**

**The following values are calculated based on chapter 3.1 of the GHS document**

| | |
|---|---|
| **ATEmix (oral)** | 100,000.00 mg/kg |
| **ATEmix (dermal)** | 300,000.00 mg/kg |
| **ATEmix (inhalation-gas)** | 99,999.00 ppm |
| **ATEmix (inhalation-dust/mist)** | 501.000 mg/l |
| **ATEmix (inhalation-vapour)** | 99,999.00 mg/l |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

| | |
|---|---|
| **Skin corrosion/irritation** | No information available. |
| **Serious eye damage/eye irritation** | No information available. |

**Respiratory or skin sensitisation** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | ACGIH | IARC | NTP | OSHA |
|---|---|---|---|---|
| Ammonium silicofluoride 16919-19-0 | - | Group 3 | - | - |

**Legend**

**IARC (International Agency for Research on Cancer)**
Group 3 - Not Classifiable as to Carcinogenicity in Humans

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

## 12. Ecological information

**Ecotoxicity**

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---|---|---|---|---|
| Ammonium silicofluoride 16919-19-0 | - | LC50: =25.8mg/L (96h, Pimephales promelas) | - | - |

**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

**Component Information**

| Chemical name | Partition coefficient |
|---|---|
| Ammonium silicofluoride 16919-19-0 | -6.01 @ 20 °C |

**Other adverse effects** No information available.

## 13. Disposal considerations

**Disposal methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

## 14. Transport information

**TDG** Not regulated

**DOT** Not regulated

## 15. Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

**International Inventories**

| | |
|---|---|
| **TSCA** | Complies. |
| **DSL/NDSL** | Contact supplier for inventory compliance status. |
| **EINECS/ELINCS** | Contact supplier for inventory compliance status. |
| **ENCS** | Contact supplier for inventory compliance status. |
| **IECSC** | Contact supplier for inventory compliance status. |
| **KECL** | Contact supplier for inventory compliance status. |
| **PICCS** | Contact supplier for inventory compliance status. |
| **AIIC** | Contact supplier for inventory compliance status. |

**Legend:**
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AICS** - Australian Inventory of Chemical Substances

## 16. Other information

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **NFPA** | **Health hazards** 0 | **Flammability** 0 | **Instability** 0 | **Special hazards** - |
| **HMIS** | **Health hazards** 0 | **Flammability** 0 | **Physical hazards** 0 | **Personal protection** X |

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

| | | | |
|---|---|---|---|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | Sk* | Skin designation |

**Key literature references and sources for data used to compile the SDS**
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

**Revision date** 04-Mar-2024

**Revision Note** No information available.

**Disclaimer**

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**End of Safety Data Sheet**