SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Product name: Silicon Standard: 5000 µg/g Si in 75 cSt Hydrocarbon Oil [50g bottle]
- Part number: 5190-8778

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

Application of the substance / the mixture
Reference material for laboratory use only

Manufacturer/Supplier:
Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia

Further information obtainable from:
e-mail: pdl-msds_author@agilent.com

1.4 Emergency telephone number:
CHEMTREC®: +(61) - 290372994

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R65: Harmful: may cause lung damage if swallowed.

Information concerning particular hazards for human and environment:
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS08

Signal word Danger

Hazard-determining components of labelling:
White mineral oil

Hazard statements
H304 May be fatal if swallowed and enters airways.

Precautionary statements
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

(Contd. on page 2)
**Product name:** Silicon Standard: 5000 µg/g Si in 75 cSt Hydrocarbon Oil [50g bottle]

(Contd. from page 1)

| P331 | Do NOT induce vomiting. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |

**Information concerning particular hazards for human and environment:**

- **Safety phrases:**
  - 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
  - 36 Wear suitable protective clothing.
  - 60 This material and its container must be disposed of as hazardous waste.
  - 62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

- **2.3 Other hazards**
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

- **3.2 Chemical characterisation: Mixtures**
  - **Description:** Also contains substances at levels not considered to be hazardous.

  - **Dangerous components:**
    - CAS: 8042-47-5  
    - EINECS: 232-455-8  
    - RTECS: PY8047000
    - White mineral oil  
    - Xn R65  
    - Asp. Tox. 1, H304  
    - > 95%

  - **Additional information:** For the wording of the listed risk phrases refer to section 16.

**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
  - **After eye contact:** Rinse opened eye for several minutes under running water.
  - **After swallowing:**
    - Rinse mouth. Do not induce vomiting.
    - Seek immediate medical advice.

- **4.2 Most important symptoms and effects, both acute and delayed**
  - No further relevant information available.

- **4.3 Indication of any immediate medical attention and special treatment needed**
  - No further relevant information available.

**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
  - **Suitable extinguishing agents:** Use fire extinguishing methods suitable for surrounding conditions.

- **5.2 Special hazards arising from the substance or mixture**
  - Formation of toxic gases is possible during heating or in case of fire.

- **5.3 Advice for firefighters**
  - **Protective equipment:** Wear self-contained respiratory protective device.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**
  - Wear protective clothing.

(Contd. on page 3)


**Product name**: Silicon Standard: 5000 µg/g Si in 75 cSt Hydrocarbon Oil [50g bottle]

- **6.2 Environmental precautions**:
  Dilute with plenty of water.
  Do not allow to enter sewers/ surface or ground water.

- **6.3 Methods and material for containment and cleaning up**:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose of contaminated material as waste according to item 13.
  Ensure adequate ventilation.

- **6.4 Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

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**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**
  Ensure good ventilation/extraction at the workplace.
  Store in cool, dry place in tightly closed receptacles.
  Prevent formation of aerosols.

- **Information about fire - and explosion protection**: No special measures required.

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

  - **Storage**:
    - **Requirements to be met by storerooms and receptacles**:
      Store in a cool location.
      Please refer to the manufacturer's certificate for specific storage and transport temperature conditions.
      Store only in the original receptacle.
      Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
    - **Information about storage in one common storage facility**: Store away from foodstuffs.
    - **Further information about storage conditions**: None.

- **7.3 Specific end use(s)**
  No further relevant information available.

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**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical facilities**: No further data; see item 7.

- **8.1 Control parameters**
  - **Ingredients with limit values that require monitoring at the workplace**:
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information**: Lists used were valid at the time of SDS preparation.

- **8.2 Exposure controls**
  - **Personal protective equipment**:
    - **General protective and hygienic measures**:
      Keep away from foodstuffs, beverages and feed.
      Wash hands before breaks and at the end of work.
    - **Respiratory protection**:
      In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
      Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
    - **Protection of hands**:
      Chemical-resistant, impervious gloves with an approved standards should be worn at all times.
**Product name:** Silicon Standard: 5000 µg/g Si in 75 cSt Hydrocarbon Oil [50g bottle]

The selection of the glove material is based on the penetration times, rates of diffusion and its degradation.

**Protective gloves**

- **Material of gloves** Natural rubber, NR
- **Penetration time of glove material**
  The protection time of the gloves cannot be accurately estimated for mixtures consisting of several substances.
  Refer to and observe manufacturers break through times of the protective gloves.
- **Eye protection:** Safety glasses

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- **Form:** Oily
- **Colour:** Light brown
- **Odour:** Mineral-oil-like
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.

#### Change in condition

- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:** 218 °C

- **Flash point:** 115 °C

- **Flammability (solid, gaseous):** Not determined.

- **Ignition temperature:**
  - **Decomposition temperature:** Not determined.
  - **Self-igniting:** Product is not selfigniting.
  - **Danger of explosion:** Not determined.

- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.

- **Vapour pressure:** Not determined.

- **Density at 20 °C:** 0.862 g/cm³
- **Relative density:** Not determined.
- **Vapour density:** Not determined.
- **Evaporation rate:** Not determined.

- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - **Dynamic:** Not determined.
  - **Kinematic:** Not determined.
Product name: Silicon Standard: 5000 µg/g Si in 75 cSt Hydrocarbon Oil [50g bottle]

(Contd. from page 4)

- **9.2 Other information**
  No further relevant information available.

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### SECTION 10: Stability and reactivity

- **10.1 Reactivity** Stable under normal conditions.
- **10.2 Chemical stability** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:**
  Formation of toxic gases is possible during heating or in case of fire.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Heat.
- **10.5 Incompatible materials:** Strong oxidizing agents.
- **10.6 Hazardous decomposition products:**
  Formation of toxic gases is possible during heating or in case of fire.

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### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity:**
    - **LD/LC50 values relevant for classification:**
      - **8042-47-5 White mineral oil**
        - **Oral LD50** > 5000 mg/kg (rat)
  - **Primary irritant effect:**
    - on the skin: No irritating effect.
    - on the eye: No irritating effect.
    - **Sensitisation:** No sensitising effects known.
  - **Additional toxicological information:**
    - The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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### SECTION 12: Ecological information

- **12.1 Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:**
    - Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
    - Do not allow undiluted product to reach ground water, water course or sewage system.
  - **12.5 Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
  - **Recommendation**
    - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 6)
**Product name:** Silicon Standard: 5000 µg/g Si in 75 cSt Hydrocarbon Oil [50g bottle]

(Contd. from page 5)

- **European waste catalogue**
  Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

- **Uncleaned packaging:**
  - **Recommendation:** Dispose of in accordance with national regulations.
  - **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

- **14.1 UN-Number**
  - ADG, ADN, IMDG, IATA: Not applicable

- **14.3 Transport hazard class(es)**
  - ADG, ADN, IMDG, IATA: Not applicable

- **14.4 Packing group**
  - ADG, IMDG, IATA: Not applicable

- **14.5 Environmental hazards:**
  - **Marine pollutant:** No

- **14.6 Special precautions for user**
  - Not applicable.

- **14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
  - Not applicable.

- **UN "Model Regulation":** -

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Philippines Inventory of Chemicals and Chemical Substances**
    All ingredients are listed.

  - **Australian Inventory of Chemical Substances**
    All ingredients are listed.

  - **Standard for the Uniform Scheduling of Medicines and Poisons**
    None of the ingredients is listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

The information contained in this document is based on Agilent’s state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

- **Relevant phrases**
  - H304 May be fatal if swallowed and enters airways.
  - R65 Harmful: may cause lung damage if swallowed.

- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
Product name: Silicon Standard: 5000 µg/g Si in 75 cSt Hydrocarbon Oil [50g bottle]

GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Sources