1 Identification

- **Product identifier**
- **Product name:** Scandium Standard: 1000 µg/g Sc in 75 cSt Hydrocarbon Oil [50g bottle]
- **Part number:** 5190-8775
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Agilent Technologies, Inc.
    5301 Stevens Creek Blvd
    Santa Clara, CA 95051,
    USA
  - **Information department:** e-mail: pdl-msds_author@agilent.com
  - **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS08 Health hazard
  - Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
- **Label elements**
  - **GHS label elements**
    The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS08
- **Signal word** Danger
- **Hazard-determining components of labeling:**
  - White mineral oil, petroleum
- **Hazard statements**
  - H304 May be fatal if swallowed and enters airways.
- **Precautionary statements**
  - **P301+P310** If swallowed: Immediately call a poison center/doctor.
  - **P331** Do NOT induce vomiting.
  - **P405** Store locked up.
  - **P501** Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 1
    - Reactivity = 0

(Contd. on page 2)
3 Composition/information on ingredients

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

<table>
<thead>
<tr>
<th>Dangerous components:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 8042-47-5</td>
</tr>
<tr>
<td>RTECS: PY8047000</td>
</tr>
<tr>
<td>White mineral oil, petroleum</td>
</tr>
<tr>
<td>Asp. Tox. 1, H304</td>
</tr>
<tr>
<td>&gt;95%</td>
</tr>
</tbody>
</table>

4 First-aid measures

- Description of first aid measures
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- 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.
  - Immediately call a doctor.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed
  - No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture
  - Formation of toxic gases is possible during heating or in case of fire.
- Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

(Contd. on page 3)
**Product name:** Scandium Standard: 1000 µg/g Sc in 75 cSt Hydrocarbon Oil [50g bottle]

Dispose contaminated material as waste according to item 13.

- **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.

- **Protective Action Criteria for Chemicals**
  - **PAC-1:**
    - None of the ingredients is listed.
  - **PAC-2:**
    - None of the ingredients is listed.
  - **PAC-3:**
    - None of the ingredients is listed.

### 7 Handling and storage

- **Handling:**
  - **Precautions for safe handling:** Store in cool, dry place in tightly closed receptacles.
  - **Information about protection against explosions and fires:** No special measures required.

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

- **Storage:**
  - **Requirements to be met by storerooms and receptacles:**
    - Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
    - Store only in the original receptacle unless other advice is given on the CoA.
    - 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:** Keep receptacle tightly sealed.
  - **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

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

- **Control parameters**

- **Components 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:** The lists that were valid during the creation were used as basis.

- **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.
  - **Breathing equipment:**
    - 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:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374

Material of gloves
Nitrile rubber, NBR
Natural rubber, NR

Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:
Form: Oily
Color: Light green
Odor: Mineral-oil-like
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition
Melting point/Melting range: Not determined.
Boiling point/Boiling range: 218 °C (424.4 °F)

Flash point: 115 °C (239 °F)

Flammability (solid, gaseous): Not determined.

Ignition temperature: Not determined

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Not determined.

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

Vapor pressure: Not determined.

Density at 20 °C (68 °F): 0.862 g/cm³ (7.19339 lbs/gal)
Relative density: Not determined.
### 4.4.2.0 Vapour density
Not determined.

### 4.4.3.0 Evaporation rate
Not determined.

### 4.4.4.0 Solubility in / Miscibility with Water
Not miscible or difficult to mix.

### 4.4.5.0 Partition coefficient (n-octanol/water)
Not determined.

### 4.4.6.0 Viscosity

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

### 4.4.7.0 Solvent content

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>0.00 %</td>
</tr>
</tbody>
</table>

Other information
No further relevant information available.

## 10 Stability and reactivity

### 10.1 Reactivity
Stable under normal conditions.
No further relevant information available.

### 10.2 Chemical stability
Stable under normal conditions.

### 10.3 Thermal decomposition / conditions to be avoided:
Formation of toxic gases is possible during heating or in case of fire.

### 10.4 Possibility of hazardous reactions
No dangerous reactions known.

### 10.5 Conditions to avoid
Heat.

### 10.6 Incompatible materials
Strong oxidizing agents.

### 10.7 Hazardous decomposition products
Formation of toxic gases is possible during heating or in case of fire.

## 11 Toxicological information

### 11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td></td>
</tr>
</tbody>
</table>

#### LD/LC50 values that are relevant for classification:

- **CAS:** 8042-47-5 White mineral oil, petroleum
- **Oral LD50:** >5,000 mg/kg (rat)

### 11.2 Primary irritant effect:

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>on the skin</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>on the eye</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
</tbody>
</table>

### 11.3 Sensitization:
Based on available data, the classification criteria are not met.

### 11.4 Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:

### 11.5 Carcinogenic categories

- **IARC (International Agency for Research on Cancer)**
  None of the ingredients is listed.

- **NTP (National Toxicology Program)**
  None of the ingredients is listed.
12 Ecological information

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

13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:**
    - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  - **Uncleaned packagings:**
    - **Recommendation:** Dispose in accordance with national regulations.

14 Transport information

- **UN-Number**
  - DOT, ADR, IMDG, IATA: Not applicable
  - DOT, ADR, IMDG, IATA: Not applicable

- **Transport hazard class(es)**
  - DOT, ADR, ADN, IMDG, IATA: Not applicable

- **Packing group**
  - DOT, ADR, IMDG, IATA: Not applicable

- **Environmental hazards:**
  - Not applicable.

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

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  - Not applicable.
Product name: Scandium Standard: 1000 µg/g Sc in 75 cSt Hydrocarbon Oil [50g bottle]

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):**
      - None of the ingredients is listed.
    - **Section 313 (Specific toxic chemical listings):**
      - None of the ingredients is listed.
  - **TSCA (Toxic Substances Control Act):**
    - CAS: 8042-47-5 White mineral oil, petroleum
  - **Hazardous Air Pollutants**
    - None of the ingredients is listed.
  - **Proposition 65**
    - **Chemicals known to cause cancer:**
      - None of the ingredients is listed.
    - **Chemicals known to cause reproductive toxicity for females:**
      - None of the ingredients is listed.
    - **Chemicals known to cause reproductive toxicity for males:**
      - None of the ingredients is listed.
    - **Chemicals known to cause developmental toxicity:**
      - None of the ingredients is listed.
  - **Carcinogenic categories**
    - **EPA (Environmental Protection Agency)**
      - None of the ingredients is listed.
    - **TLV (Threshold Limit Value established by ACGIH)**
      - None of the ingredients is listed.
    - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
      - None of the ingredients is listed.
  - **Hazard pictograms**
    - [GHS08]
      - **Signal word** Danger
      - **Hazard-determining components of labeling:**
        - White mineral oil, petroleum
      - **Hazard statements**
        - H304 May be fatal if swallowed and enters airways.
Safety Data Sheet
acc. to OSHA HCS

Product name: Scandium Standard: 1000 µg/g Sc in 75 cSt Hydrocarbon Oil [50g bottle]

· Precautionary statements
  P301+P310 If swallowed: Immediately call a poison center/doctor.
  P331 Do NOT induce vomiting.
  P405 Store locked up.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

· Date of preparation / last revision 03/20/2020 /

· 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
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  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)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  Asp. Tox. 1: Aspiration hazard – Category 1

· Sources

· Data compared to the previous version altered. All sections have been updated.