Material Safety Data Sheet

Santovac 5P Ultra Polyphenyl Ether Lubricant PN: 6040-0809

1. Product and company identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>Santovac 5P Ultra Polyphenyl Ether Lubricant PN: 6040-0809</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part No.</td>
<td>6040-0809</td>
</tr>
<tr>
<td>Manufacturer / Supplier</td>
<td>Agilent Technologies, Inc.</td>
</tr>
<tr>
<td></td>
<td>Logistics Center - Americas</td>
</tr>
<tr>
<td></td>
<td>500 Ships Landing Way</td>
</tr>
<tr>
<td></td>
<td>New Castle, Delaware 19720</td>
</tr>
<tr>
<td>Emergency telephone number</td>
<td>1-302-633-8777</td>
</tr>
<tr>
<td></td>
<td>1-877-4 Agilent (Information Telephone Number)</td>
</tr>
<tr>
<td>Use of the substance/preparation</td>
<td>Lubricant.</td>
</tr>
<tr>
<td>Validation date</td>
<td>01/30/2009</td>
</tr>
</tbody>
</table>

2. Hazards identification

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid. [Oily liquid.]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>Phenolic. [Slight]</td>
</tr>
<tr>
<td>OSHA/HCS status</td>
<td>While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.</td>
</tr>
<tr>
<td>Emergency overview-Label Statement</td>
<td>NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.</td>
</tr>
<tr>
<td>Routes of entry</td>
<td>Dermal contact. Eye contact. Inhalation. Ingestion.</td>
</tr>
</tbody>
</table>

Potential acute health effects

- **Eyes**: No known significant effects or critical hazards.
- **Skin**: Practically non-toxic in contact with skin.
- **Inhalation**: No known significant effects or critical hazards.
- **Ingestion**: Practically non-toxic if swallowed.

Medical conditions aggravated by overexposure: Not applicable.

Other adverse effects: Not applicable.

See toxicological information (section 11)

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
</tr>
<tr>
<td>1,3-bis(3-Phenoxyphenoxy)benzene</td>
</tr>
</tbody>
</table>

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4. First aid measures

**Eye contact**: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if adverse health effects persist or are severe.

**Skin contact**: Wash with soap and water. Get medical attention if adverse health effects persist or are severe.

**Inhalation**: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if adverse health effects persist or are severe.

**Ingestion**: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if adverse health effects persist or are severe.

**Protection of first-aiders**: Not applicable.

**Notes to physician**: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

**Flammability of the product**: May be combustible at high temperature.

**Products of combustion**: Decomposition products may include the following materials: carbon oxides

**Extinguishing media**

- **Suitable**: Use an extinguishing agent suitable for the surrounding fire.
- **Not suitable**: Not applicable.

**Special protective equipment for fire-fighters**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Special remarks on fire hazards**: Hazardous thermal decomposition products: Benzene and Phenol.

6. Accidental release measures

**Personal precautions**: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

**Environmental precautions**: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods for cleaning up**

- **Small spill**: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

**Handling**: Wash thoroughly after handling.

**Storage**: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

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8. Exposure controls/personal protection

**Product name**

**United States**

No exposure limit value known.

Consult local authorities for acceptable exposure limits.

**Exposure limits**

**Engineering measures**

If a risk assessment indicates this is necessary, use properly fitted, air-purifying or air-fed respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hygiene measures**

Use established techniques to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protection**

**Eyes**

Wear safety eyewear complying with an approved standard if a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

**Skin**

Chemical resistant protective gloves and clothing are recommended. The choice of protective gloves or clothing must be based on chemical resistance and other use requirements. Generally, BUNA-N offers acceptable chemical resistance. Individuals who are acutely and specifically sensitive to this chemical may require additional protective clothing.

**Respiratory**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hands**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Other protection**

Not available.

9. Physical and chemical properties

**Physical state**

Liquid. [Oily liquid.]

**Flash point**

Open cup: 287.8°C (550°F) (Cleveland.).

**Auto-ignition temperature**

612.8°C (1135°F)

**Color**

Yellow. (Light.)

**Odor**

Phenolic. [Slight]

**pH**

7 [Neutral.]

**Boiling/condensation point**

476.1°C (889°F)

**Specific gravity**

1.195 to 1.201 g/cm³

**Vapor density**

15.5 (Air = 1)

**Solubility**

Easily soluble in the following materials: acetone.

Insoluble in the following materials: cold water and hot water.

10. Stability and reactivity

**Stability and reactivity**

The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.

**Conditions of instability**

When exposed to high temperatures, may produce hazardous decomposition products, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

**Incompatibility with various substances**

Reactive or incompatible with the following materials: oxidizing materials.
10. Stability and reactivity

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Conditions of reactivity - Flammability: Hazardous thermal decomposition products: Benzene and Phenol.

11. Toxicological information

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-bis(3-Phenoxyphenoxy)benzene</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;10000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Eyes**: No known significant effects or critical hazards.

**Skin**: Practically non-toxic in contact with skin.

**Inhalation**: No known significant effects or critical hazards.

**Ingestion**: Practically non-toxic if swallowed.

**Potential chronic health effects**

**Chronic effects**: No known significant effects or critical hazards.

**Carcinogenicity**: No known significant effects or critical hazards.

**Mutagenicity**: No known significant effects or critical hazards.

**Teratogenicity**: No known significant effects or critical hazards.

**Developmental effects**: No known significant effects or critical hazards.

**Fertility effects**: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Inhalation**: No specific data.

**Ingestion**: No specific data.

**Skin**: No specific data.

**Eyes**: No specific data.

**Other adverse effects**: Not available.

12. Ecological information

**Environmental effects**: No known significant effects or critical hazards.

**Other adverse effects**: No known significant effects or critical hazards.

13. Disposal considerations

**Waste disposal**: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**RCRA classification**: Code: D018

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.
14. Transport information

Regulatory information

TDG / DOT / IMDG / IATA : Not regulated.

15. Regulatory information

United States

U.S. Federal regulations

United States inventory (TSCA 8b): This material is listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: No products were found.
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State regulations

Connecticut Carcinogen Reporting: This material is not listed.
Connecticut Hazardous Material Survey: This material is not listed.
Florida substances: This material is not listed.
Illinois Chemical Safety Act: This material is not listed.
Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.
Louisiana Reporting: This material is not listed.
Louisiana Spill: This material is not listed.
Massachusetts Spill: This material is not listed.
Massachusetts Substances: This material is not listed.
Michigan Critical Material: This material is not listed.
Minnesota Hazardous Substances: This material is not listed.
New Jersey Hazardous Substances: This material is not listed.
New Jersey Spill: This material is not listed.
New Jersey Toxic Catastrophe Prevention Act: This material is not listed.
New York Acutely Hazardous Substances: This material is not listed.
New York Toxic Chemical Release Reporting: This material is not listed.
Pennsylvania RTK Hazardous Substances: This material is not listed.
Rhode Island Hazardous Substances: This material is not listed.

State regulations - California Prop. 65

: No products were found.

16. Other information

Label requirements

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

Date of issue : 01/30/2009
Date of previous issue : 09/08/2005
Version : 2
Notice to reader
16. Other information

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