SAFETY DATA SHEET
5973 One Year Maintenance Kit - for diffusion pump systems, Part Number 5183-2096

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

1.1 Product identifier

Product name: 5973 One Year Maintenance Kit - for diffusion pump systems, Part Number 5183-2096

CAS number: Santovac 5P Ultra Polyphenyl Ether Lubricant OFN EI Checkout Standard 1 pg/μL AVF 45 Platinum, 1Q Not applicable.

Part no. (chemical kit): 5183-2096

Part no.: Santovac 5P Ultra Polyphenyl Ether Lubricant OFN EI Checkout Standard 1 pg/μL AVF 45 Platinum, 1Q 6040-0809 5188-5348 5191-5851

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

Identified uses: Reagents and Standards for Analytical Chemistry Laboratory Use

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.
5500 Lakesides Cheadle Royal Business Park,
Cheadle, Cheshire, SK8 3GR
United Kingdom
Tel: +44 (0) 345 712 5292
0800 603 1000

e-mail address of person responsible for this SDS: pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation): CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Santovac 5P Ultra Polyphenyl Ether Lubricant OFN EI Checkout Standard 1 pg/μL AVF 45 Platinum, 1Q Mono-constituent substance Mixture Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Date of issue/Date of revision: 26/10/2022
Date of previous issue: 03/09/2019
Version: 4
SECTION 2: Hazards identification

**OFN EI Checkout Standard 1 pg/μL**

- **H225** FLAMMABLE LIQUIDS Category 2
- **H315** SKIN CORROSION/IRRIGATION Category 2
- **H336** SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) Category 3
- **H304** ASPIRATION HAZARD Category 1
- **H400** SHORT-TERM (ACUTE) AQUATIC HAZARD Category 1
- **H410** LONG-TERM (CHRONIC) AQUATIC HAZARD Category 1

**AVF 45 Platinum, 1Q**

- **H413** LONG-TERM (CHRONIC) AQUATIC HAZARD Category 4

**Ingredients of unknown toxicity**

- AVF 45 Platinum, 1Q
  - Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 30 - 60%
  - Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%
  - Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 30 - 60%

**Ingredients of unknown ecotoxicity**

- AVF 45 Platinum, 1Q
  - Contains 6% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms**

- OFN EI Checkout Standard 1 pg/μL

**Signal word**

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
  - Danger
- AVF 45 Platinum, 1Q
  - No signal word.

**Hazard statements**

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
  - No known significant effects or critical hazards.
- AVF 45 Platinum, 1Q
  - H225 - Highly flammable liquid and vapour.
  - H304 - May be fatal if swallowed and enters airways.
  - H315 - Causes skin irritation.
  - H336 - May cause drowsiness or dizziness.
  - H410 - Very toxic to aquatic life with long lasting effects.
  - H413 - May cause long lasting harmful effects to aquatic life.

**Precautionary statements**

**Prevention**

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
  - Not applicable.
- AVF 45 Platinum, 1Q
  - P280 - Wear protective gloves.
  - P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  - P273 - Avoid release to the environment.
  - P261 - Avoid breathing vapour.
  - P264 - Wash thoroughly after handling.
  - P273 - Avoid release to the environment.
SECTION 2: Hazards identification

Response:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
  - P391 - Collect spillage.
  - P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
  - P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.
  - P362 + P364 - Take off contaminated clothing and wash it before reuse.
  - P302 + P352 - IF ON SKIN: Wash with plenty of water.

Storage:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
  - P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Disposal:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
  - P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
  - Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
  - Not applicable.

Special packaging requirements:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
  - Not applicable.

Tactile warning of danger:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
  - Not applicable.

2.3 Other hazards

| Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII |
|---------------------------------------------------------|------------------|------------------|------------------|
| Santovac 5P Ultra Polyphenyl Ether Lubricant             | N/A              | N/A              | N/A              |

Date of issue/Date of revision: 26/10/2022  Date of previous issue: 03/09/2019  Version: 4
SECTION 2: Hazards identification

Other hazards which do not result in classification:
- Santovac 5P Ultra Polyphenyl Ether Lubricant: None known.
- OFN EI Checkout Standard 1 pg/μL: None known.
- AVF 45 Platinum, 1Q: None known.

SECTION 3: Composition/information on ingredients

3.1 Substances:
- Santovac 5P Ultra Polyphenyl Ether Lubricant: Mono-constituent substance
- OFN EI Checkout Standard 1 pg/μL: Mixture
- AVF 45 Platinum, 1Q: Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santovac 5P Ultra Polyphenyl Ether Lubricant 1,3-bis(3-phenoxyphenoxy)benzene</td>
<td>EC: 219-530-0 CAS: 2455-71-2</td>
<td>100</td>
<td>Not classified.</td>
<td>[1]</td>
</tr>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL 2,2,4-trimethylpentane</td>
<td>EC: 208-759-1 CAS: 540-84-1 Index: 601-009-00-8</td>
<td>≥90</td>
<td>Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)</td>
<td>[1]</td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated 1-Dodecene, homopolymer, hydrogenated</td>
<td>EC: 500-183-1 CAS: 68037-01-4</td>
<td>≥75 - ≤90</td>
<td>Asp. Tox. 1, H304</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td>CAS: 151006-63-2</td>
<td>≥25 - ≤50</td>
<td>Aquatic Chronic 4, H413 See Section 16 for the full text of the H statements declared above.</td>
<td>[1]</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type:
- Santovac 5P Ultra Polyphenyl Ether Lubricant: [1] Constituent
- OFN EI Checkout Standard 1 pg/μL: [1] Substance classified with a health or environmental hazard
- AVF 45 Platinum, 1Q: [1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.
SECTION 4: First aid measures

4.1 Description of first aid measures

**Eye contact**

<table>
<thead>
<tr>
<th>Material</th>
<th>First aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santovac 5P Ultra Polyphenyl Ether Lubricant</td>
<td>Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.</td>
</tr>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.</td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td>Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.</td>
</tr>
</tbody>
</table>

**Inhalation**

<table>
<thead>
<tr>
<th>Material</th>
<th>First aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santovac 5P Ultra Polyphenyl Ether Lubricant</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.</td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.</td>
</tr>
</tbody>
</table>

**Skin contact**

<table>
<thead>
<tr>
<th>Material</th>
<th>First aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santovac 5P Ultra Polyphenyl Ether Lubricant</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.</td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

**Ingestion**

<table>
<thead>
<tr>
<th>Material</th>
<th>First aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santovac 5P Ultra Polyphenyl Ether Lubricant</td>
<td>Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.</td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td>Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

Protection of first-aiders:
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

No action shall be taken involving any personal risk or without suitable training.

OFN EI Checkout Standard 1 pg/μL
- No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

AVF 45 Platinum, 1Q
- No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact:
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

No specific data.

Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

Skin contact:
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

No specific data.

Adverse symptoms may include the following:
- irritation
- redness

Inhalation:
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

No specific data.

Adverse symptoms may include the following:
- nausea or vomiting
- headache
- drowsiness/fatigue
- dizziness/vertigo
- unconsciousness

Ingestion:
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

No specific data.

Adverse symptoms may include the following:
- nausea or vomiting

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician:
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
SECTION 4: First aid measures

<table>
<thead>
<tr>
<th>Specific treatments</th>
<th>No specific treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santovac 5P Ultra Polyphenyl Ether Lubricant</td>
<td></td>
</tr>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td></td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 5: Firefighting measures

5.1 Extinguishing media

**Suitable extinguishing media**

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

Do not use water jet.

5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture**

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

In a fire or if heated, a pressure increase will occur and the container may burst.

Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Decomposition products may include the following materials:

- carbon dioxide
- carbon monoxide
- sulfur oxides
- phosphorus oxides
- metal oxide/oxides

**Suitable extinguishing media**

- Use an extinguishing agent suitable for the surrounding fire.
- Use dry chemical, CO₂, water spray (fog) or foam.

**Unsuitable extinguishing media**

- None known.
- Do not use water jet.

5.3 Advice for firefighters
SECTION 5: Firefighting measures

Special protective actions for fire-fighters:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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

Avoid dispersal of spilt 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).

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

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 spilt material. Put on appropriate personal protective equipment.

For emergency responders:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions:

- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL

Avoid dispersal of spilt 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).
SECTION 6: Accidental release measures

AVF 45 Platinum, 1Q
May be harmful to the environment if released in large quantities. Collect spillage.
Avoid dispersal of spilt 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). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Santovac 5P Ultra Polyphenyl Ether Lubricant
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Methods for cleaning up: OFN EI Checkout Standard 1 pg/μL
Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Methods for cleaning up: AVF 45 Platinum, 1Q
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections
See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures: Santovac 5P Ultra Polyphenyl Ether Lubricant
Put on appropriate personal protective equipment (see Section 8).

Protective measures: OFN EI Checkout Standard 1 pg/μL
Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Protective measures: AVF 45 Platinum, 1Q
Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
SECTION 7: Handling and storage

Advice on general occupational hygiene:

- Santovac 5P Ultra Polyphenyl Ether Lubricant: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- OFN EI Checkout Standard 1 pg/μL: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- AVF 45 Platinum, 1Q: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities:

Storage:

- Santovac 5P Ultra Polyphenyl Ether Lubricant: 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

- OFN EI Checkout Standard 1 pg/μL: Store in accordance with local regulations. Store in a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

- AVF 45 Platinum, 1Q: 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

<table>
<thead>
<tr>
<th>Category</th>
<th>Notification and MAPP threshold</th>
<th>Safety report threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P5c</td>
<td>5000 tonne</td>
<td>50000 tonne</td>
</tr>
<tr>
<td>E1</td>
<td>100 tonne</td>
<td>200 tonne</td>
</tr>
</tbody>
</table>
SECTION 7: Handling and storage

7.3 Specific end use(s)

Recommendations: Santovac 5P Ultra Polyphenyl Ether Lubricant

Industrial sector specific solutions: Santovac 5P Ultra Polyphenyl Ether Lubricant

OFN EI Checkout Standard 1 pg/μL

AVF 45 Platinum, 1Q

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures: Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Type</th>
<th>Exposure</th>
<th>Value</th>
<th>Population</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL 2,2,4-trimethylpentane</td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>608 mg/m³</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Oral</td>
<td>699 mg/kg bw/day</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Dermal</td>
<td>699 mg/kg bw/day</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Dermal</td>
<td>773 mg/kg bw/day</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>2035 mg/m³</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
</tbody>
</table>

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Date of issue/Date of revision: 26/10/2022
Date of previous issue: 03/09/2019
Version: 4

11/23
SECTION 8: Exposure controls/personal protection

Skin protection

Hand protection: 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Santovac 5P Ultra Polyphenyl Ether Lubricant · Liquid. [Clear.]
OFN EI Checkout Standard 1 pg/μL · Liquid.
AVF 45 Platinum, 1Q · Liquid.

Colour: Santovac 5P Ultra Polyphenyl Ether Lubricant · Yellow. [Light]
OFN EI Checkout Standard 1 pg/μL · Clear. / Colourless.
AVF 45 Platinum, 1Q · Clear. / Yellowish. [Light]

Odour: Santovac 5P Ultra Polyphenyl Ether Lubricant · Odourless./ Phenolic.[Slight]
OFN EI Checkout Standard 1 pg/μL · Gasoline-like
AVF 45 Platinum, 1Q · Petroleum oil. [Slight]

Odour threshold: Santovac 5P Ultra Polyphenyl Ether Lubricant · Not available.
OFN EI Checkout Standard 1 pg/μL · Not available.
AVF 45 Platinum, 1Q · Not available.

Melting point/freezing point: Santovac 5P Ultra Polyphenyl Ether Lubricant · Not available.
OFN EI Checkout Standard 1 pg/μL · -107°C
AVF 45 Platinum, 1Q · Not available.
## SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Santovac 5P Ultra Polyphenyl Ether Lubricant</th>
<th>OFN EI Checkout Standard 1 pg/μL</th>
<th>AVF 45 Platinum, 1Q</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>476.1°C</td>
<td>99.2°C</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>Not available.</td>
<td>Lower: 1.1%</td>
<td>Upper: 6%</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Open cup: 287.8°C [Cleveland]</td>
<td>Open cup: 4.5°C</td>
<td>Closed cup: 265°C [ASTM D-92]</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>612.8°C</td>
<td>415 to 418°C</td>
<td></td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>&gt;425°C</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>7</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available.</td>
<td>Kinematic (40°C): 41.4 to 50.6 mm²/s</td>
<td></td>
</tr>
</tbody>
</table>

### Ingredient name

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>°C</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated</td>
<td>343 to 369</td>
<td>ASTM D 2159</td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision**: 26/10/2022  
**Date of previous issue**: 03/09/2019  
**Version**: 4
### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Solubility(ies)</th>
<th>Media</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santovac 5P Ultra</td>
<td>acetone</td>
<td>Soluble</td>
</tr>
<tr>
<td>Polyphenyl Ether Lubricant</td>
<td>water</td>
<td>Not soluble</td>
</tr>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>water</td>
<td>Not soluble</td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td>water</td>
<td>Not soluble</td>
</tr>
</tbody>
</table>

| Partition coefficient: n-octanol/water   | Santovac 5P Ultra Polyphenyl Ether Lubricant | Not available.          |
|                                          | OFN EI Checkout Standard 1 pg/μL            | 4.5                     |
|                                          | AVF 45 Platinum, 1Q                         | Not applicable.         |

| Vapour pressure                          | Santovac 5P Ultra Polyphenyl Ether Lubricant | Not applicable.         |
|                                          | OFN EI Checkout Standard 1 pg/μL            | 5.5 kPa (41 mm Hg)      |
|                                          | AVF 45 Platinum, 1Q                         | <0.013 kPa (<0.1 mm Hg) |

| Evaporation rate                         | Santovac 5P Ultra Polyphenyl Ether Lubricant | Not available.          |
|                                          | OFN EI Checkout Standard 1 pg/μL            | 3.63 (butyl acetate = 1) |
|                                          | AVF 45 Platinum, 1Q                         | Not available.          |

| Relative density                         | Santovac 5P Ultra Polyphenyl Ether Lubricant | 1.195 to 1.201          |
|                                          | OFN EI Checkout Standard 1 pg/μL            | 0.692                   |
|                                          | AVF 45 Platinum, 1Q                         | 0.83                    |

| Vapour density                           | Santovac 5P Ultra Polyphenyl Ether Lubricant | Not available.          |
|                                          | OFN EI Checkout Standard 1 pg/μL            | 3.93 [Air = 1]          |
|                                          | AVF 45 Platinum, 1Q                         | >1 [Air = 1]            |

| Explosive properties                     | Santovac 5P Ultra Polyphenyl Ether Lubricant | Not available.          |
|                                          | OFN EI Checkout Standard 1 pg/μL            | Not available.          |
|                                          | AVF 45 Platinum, 1Q                         | Not available.          |

| Oxidising properties                     | Santovac 5P Ultra Polyphenyl Ether Lubricant | Not available.          |
|                                          | OFN EI Checkout Standard 1 pg/μL            | Not available.          |
|                                          | AVF 45 Platinum, 1Q                         | Not available.          |

| Particle characteristics                 | Santovac 5P Ultra Polyphenyl Ether Lubricant | Not applicable.         |
|                                          | OFN EI Checkout Standard 1 pg/μL            | Not applicable.         |
|                                          | AVF 45 Platinum, 1Q                         | Not applicable.         |
9.2 Other information
No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q
The product is stable.

10.3 Possibility of hazardous reactions
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
- AVF 45 Platinum, 1Q
Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
AVF 45 Platinum, 1Q
Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.

10.5 Incompatible materials
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
AVF 45 Platinum, 1Q
May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products
- Santovac 5P Ultra Polyphenyl Ether Lubricant
- OFN EI Checkout Standard 1 pg/μL
AVF 45 Platinum, 1Q
Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SECTION 11: Toxicological information

11.1 Information on toxicological effects

**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>OFN EI Checkout Standard 1 pg/μL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,2,4-trimethylpentane</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat - Male, Female</td>
<td>&gt;33.52 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat - Male, Female</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td>LC50 Inhalation Dusts and mist</td>
<td>Rat - Male, Female</td>
<td>&gt;5.2 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td>Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Acute toxicity estimates**

N/A

**Irritation/Corrosion**

Conclusion/Summary: Not available.

**Sensitiser**

Conclusion/Summary: Not available.

**Mutagenicity**

Conclusion/Summary: Not available.

**Carcinogenicity**

Conclusion/Summary: Not available.

**Reproductive toxicity**

Conclusion/Summary: Not available.

**Teratogenicity**

Conclusion/Summary: Not available.

**Specific target organ toxicity (single exposure)**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>Category 3</td>
<td>-</td>
<td>Narcotic effects</td>
</tr>
<tr>
<td>2,2,4-trimethylpentane</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>2,2,4-trimethylpentane</td>
<td></td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated</td>
<td></td>
</tr>
</tbody>
</table>

**Information on likely routes of exposure**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santovac 5P Ultra Polyphenyl Ether Lubricant</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.</td>
</tr>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td></td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td></td>
</tr>
</tbody>
</table>

**Potential acute health effects**
### SECTION 11: Toxicological information

#### Inhalation
- **Santovac 5P Ultra Polyphenyl Ether Lubricant**
- **OFN EI Checkout Standard 1 pg/μL**
- **AVF 45 Platinum, 1Q**
  - No known significant effects or critical hazards.
  - Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
  - No known significant effects or critical hazards.

#### Ingestion
- **Santovac 5P Ultra Polyphenyl Ether Lubricant**
- **OFN EI Checkout Standard 1 pg/μL**
- **AVF 45 Platinum, 1Q**
  - No known significant effects or critical hazards.
  - Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
  - No known significant effects or critical hazards.

#### Skin contact
- **Santovac 5P Ultra Polyphenyl Ether Lubricant**
- **OFN EI Checkout Standard 1 pg/μL**
- **AVF 45 Platinum, 1Q**
  - Causes skin irritation.
  - No known significant effects or critical hazards.

#### Eye contact
- **Santovac 5P Ultra Polyphenyl Ether Lubricant**
- **OFN EI Checkout Standard 1 pg/μL**
- **AVF 45 Platinum, 1Q**
  - No known significant effects or critical hazards.

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

**Inhalation**
- **Santovac 5P Ultra Polyphenyl Ether Lubricant**
- **OFN EI Checkout Standard 1 pg/μL**
  - Adverse symptoms may include the following:
    - nausea or vomiting
    - headache
    - drowsiness/fatigue
    - dizziness/vertigo
    - unconsciousness
  - AVF 45 Platinum, 1Q
  - No specific data.

**Ingestion**
- **Santovac 5P Ultra Polyphenyl Ether Lubricant**
- **OFN EI Checkout Standard 1 pg/μL**
  - Adverse symptoms may include the following:
    - nausea or vomiting
  - AVF 45 Platinum, 1Q
  - No specific data.

**Skin contact**
- **Santovac 5P Ultra Polyphenyl Ether Lubricant**
- **OFN EI Checkout Standard 1 pg/μL**
  - Adverse symptoms may include the following:
    - irritation
    - redness
  - AVF 45 Platinum, 1Q
  - No specific data.

**Eye contact**
- **Santovac 5P Ultra Polyphenyl Ether Lubricant**
- **OFN EI Checkout Standard 1 pg/μL**
  - Adverse symptoms may include the following:
    - pain or irritation
    - watering
    - redness
  - AVF 45 Platinum, 1Q
  - No specific data.

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

**Date of issue/Date of revision**: 26/10/2022  **Date of previous issue**: 03/09/2019  **Version**: 4
Short term exposure
Potential immediate effects: Not available.
Potential delayed effects: Not available.

Long term exposure
Potential immediate effects: Not available.
Potential delayed effects: Not available.

Potential chronic health effects
General: Santovac 5P Ultra Polyphenyl Ether Lubricant, OFN EI Checkout Standard 1 pg/µL, AVF 45 Platinum, 1Q
Carcinogenicity: Santovac 5P Ultra Polyphenyl Ether Lubricant, OFN EI Checkout Standard 1 pg/µL, AVF 45 Platinum, 1Q
Mutagenicity: Santovac 5P Ultra Polyphenyl Ether Lubricant, OFN EI Checkout Standard 1 pg/µL, AVF 45 Platinum, 1Q
Reproductive toxicity: Santovac 5P Ultra Polyphenyl Ether Lubricant, OFN EI Checkout Standard 1 pg/µL, AVF 45 Platinum, 1Q
Other information: Santovac 5P Ultra Polyphenyl Ether Lubricant, OFN EI Checkout Standard 1 pg/µL, AVF 45 Platinum, 1Q

Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.

SECTION 12: Ecological information

12.1 Toxicity
Conclusion/Summary: Not available.

12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFN EI Checkout Standard 1 pg/µL 2,2,4-trimethylpentane</td>
<td>-</td>
<td>-</td>
<td>Inherent</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential
SECTION 12: Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Log(P_{ow})</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>4.5</td>
<td>-</td>
<td>high</td>
</tr>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>4.08</td>
<td>231</td>
<td>low</td>
</tr>
<tr>
<td>2,2,4-trimethylpentane</td>
<td>&gt;6.5</td>
<td>-</td>
<td>high</td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated 1-Dodecene, homopolymer, hydrogenated</td>
<td>&gt;6.5</td>
<td>-</td>
<td>high</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Soil/water partition coefficient (\(K_{OC}\)) : Not available.
Mobility : Not available.

12.5 Results of PBT and vPvB assessment

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>PBT</th>
<th>P</th>
<th>B</th>
<th>T</th>
<th>vPvB</th>
<th>vP</th>
<th>vB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santovac 5P Ultra Polyphenyl Ether Lubricant</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1,3-bis(3-phenoxyphenoxy) benzene</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
SECTION 14: Transport information

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number</td>
<td>UN1262</td>
<td>UN1262</td>
</tr>
<tr>
<td>14.2 UN proper shipping name</td>
<td>OCTANES</td>
<td>OCTANES</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

**Additional information**

**Remarks:** De minimis quantities

**ADR/RID**

- The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- **Hazard identification number:** 33
- **Limited quantity:** 1 L
- **Tunnel code** (D/E)

**IMDG**

- The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- **Emergency schedules:** F-E, S-E

**IATA**

- The environmentally hazardous substance mark may appear if required by other transportation regulations.
- **Quantity limitation**
  - Passenger and Cargo Aircraft: 5 L. Packaging instructions: 353.

**14.6 Special precautions for user**

- **Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments**

- Not available.

SECTION 15: Regulatory information

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

**UK (GB)/REACH**

- **Annex XIV - List of substances subject to authorisation**
  - **Annex XIV**
    - None of the components are listed.

- **Substances of very high concern**
  - None of the components are listed.

- **Ozone depleting substances**
  - Not listed.

- **Prior Informed Consent (PIC)**
  - Not listed.
SECTION 15: Regulatory information

**Persistent Organic Pollutants**
Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**
Not listed.

**Label**
- Santovac 5P Ultra Polyphenyl Ether Lubricant: Not applicable.
- OFN EI Checkout Standard 1 pg/μL: Not applicable.
- AVF 45 Platinum, 1Q: Not applicable.

**Seveso Directive**
This product is controlled under the Seveso Directive.

**Danger criteria**

<table>
<thead>
<tr>
<th>Category</th>
<th>OFN EI Checkout Standard 1 pg/μL</th>
<th>P5c</th>
<th>E1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EU regulations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial emissions (integrated pollution prevention and control) - Air</td>
<td>Not listed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Industrial emissions (integrated pollution prevention and control) - Water</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>15.2 Chemical safety assessment</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>This product contains substances for which Chemical Safety Assessments might still be required.</td>
</tr>
</tbody>
</table>

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**
Not listed.

**Montreal Protocol**
Not listed.

**Stockholm Convention on Persistent Organic Pollutants**
Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**
Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**
Not listed.

**Inventory list**

<table>
<thead>
<tr>
<th>Country</th>
<th>Not determined.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Canada</td>
<td>Not determined.</td>
</tr>
<tr>
<td>China</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Eurasian Economic Union</td>
<td>Russian Federation inventory: Not determined.</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Philippines</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>
## SECTION 15: Regulatory information

<table>
<thead>
<tr>
<th>Country</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taiwan</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Turkey</td>
<td>Not determined.</td>
</tr>
<tr>
<td>United States</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

## SECTION 16: Other information

- Indicates information that has changed from previously issued version.

### Abbreviations and acronyms

- **ATE** = Acute Toxicity Estimate
- **CLP** = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- **DMEL** = Derived Minimal Effect Level
- **DNEL** = Derived No Effect Level
- **EUH statement** = CLP-specific Hazard statement
- **N/A** = Not available
- **PBT** = Persistent, Bioaccumulative and Toxic
- **PNEC** = Predicted No Effect Concentration
- **RRN** = REACH Registration Number
- **vPvB** = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Flam. Liq. 2, H225</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT SE 3, H336</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Asp. Tox. 1, H304</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>Aquatic Acute 1, H400</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 1, H410</td>
<td>Calculation method</td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

### Full text of abbreviated H statements

<table>
<thead>
<tr>
<th>Classification</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>H413</td>
<td>May cause long lasting harmful effects to aquatic life.</td>
</tr>
</tbody>
</table>

### Full text of classifications

<table>
<thead>
<tr>
<th>Classification</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFN EI Checkout Standard 1 pg/μL</td>
<td>SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1</td>
</tr>
<tr>
<td>Aquatic Acute 1</td>
<td>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1</td>
</tr>
<tr>
<td>Asp. Tox. 1</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>Flam. Liq. 2</td>
<td>FLAMMABLE LIQUIDS - Category 2</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>SKIN CORROSION/IRRITATION - Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3</td>
</tr>
<tr>
<td>AVF 45 Platinum, 1Q</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 16: Other information

<table>
<thead>
<tr>
<th>Aquatic Chronic 4</th>
<th>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asp. Tox. 1</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision**: 26/10/2022

**Date of previous issue**: 03/09/2019

**Version**: 4

**Notice to reader**

Disclaimer: 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.