SAFETY DATA SHEET

Section 1. Identification

Product identifier : Paq5000 DNA Polymerase, Part Number 600684
Part No. (Chemical Kit) : 600684
Part No. : Paq5000 DNA Polymerase 600684-51
10X Paq5000 DNA Polymerase Buffer 600680-52

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture
Not classified.

GHS label elements

Signal word : Paq5000 DNA Polymerase
10X Paq5000 DNA Polymerase Buffer
No signal word.
No signal word.

Hazard statements : Paq5000 DNA Polymerase
10X Paq5000 DNA Polymerase Buffer
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Precautionary statements

Prevention : Paq5000 DNA Polymerase
10X Paq5000 DNA Polymerase Buffer
Not applicable.
Not applicable.

Date of issue/Date of revision : 18/05/2017
Date of previous issue : 30/01/2015
Version : 4
Section 2. Hazard(s) identification

Response: Paq5000 DNA Polymerase Not applicable.
10X Paq5000 DNA Polymerase Buffer Not applicable.

Storage: Paq5000 DNA Polymerase Not applicable.
10X Paq5000 DNA Polymerase Buffer Not applicable.

Disposal: Paq5000 DNA Polymerase Not applicable.
10X Paq5000 DNA Polymerase Buffer Not applicable.

Supplemental label elements: Paq5000 DNA Polymerase Not applicable.
10X Paq5000 DNA Polymerase Buffer Not applicable.

Other hazards which do not result in classification: Paq5000 DNA Polymerase None known.
10X Paq5000 DNA Polymerase Buffer None known.

Section 3. Composition and ingredient information

Substance/mixture: Paq5000 DNA Polymerase Mixture
10X Paq5000 DNA Polymerase Buffer Mixture

CAS number/other identifiers

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>(w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paq5000 DNA Polymerase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>≥60 - ≤75</td>
<td>56-81-5</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Paq5000 DNA Polymerase
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.

10X Paq5000 DNA Polymerase Buffer
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.

Inhalation: Paq5000 DNA Polymerase
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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.

10X Paq5000 DNA Polymerase Buffer
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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

**Skin contact**
- Paq5000 DNA Polymerase: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- 10X Paq5000 DNA Polymerase Buffer: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**
- Paq5000 DNA Polymerase: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
- 10X Paq5000 DNA Polymerase Buffer: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

**Notes to physician**
- Paq5000 DNA Polymerase: 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.
- 10X Paq5000 DNA Polymerase Buffer: 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.

---

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

**Potential acute health effects**

**Eye contact**
- Paq5000 DNA Polymerase: No known significant effects or critical hazards.
- 10X Paq5000 DNA Polymerase Buffer: No known significant effects or critical hazards.

**Inhalation**
- Paq5000 DNA Polymerase: No known significant effects or critical hazards.
- 10X Paq5000 DNA Polymerase Buffer: No known significant effects or critical hazards.

**Skin contact**
- Paq5000 DNA Polymerase: No known significant effects or critical hazards.
- 10X Paq5000 DNA Polymerase Buffer: No known significant effects or critical hazards.

**Ingestion**
- Paq5000 DNA Polymerase: No known significant effects or critical hazards.
- 10X Paq5000 DNA Polymerase Buffer: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact**
- Paq5000 DNA Polymerase: No specific data.
- 10X Paq5000 DNA Polymerase Buffer: No specific data.

**Inhalation**
- Paq5000 DNA Polymerase: No specific data.
- 10X Paq5000 DNA Polymerase Buffer: No specific data.

**Skin contact**
- Paq5000 DNA Polymerase: No specific data.
- 10X Paq5000 DNA Polymerase Buffer: No specific data.

**Ingestion**
- Paq5000 DNA Polymerase: No specific data.
- 10X Paq5000 DNA Polymerase Buffer: No specific data.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Date of issue/Date of revision**: 18/05/2017
**Date of previous issue**: 30/01/2015
**Version**: 4
### Section 4. First aid measures

<table>
<thead>
<tr>
<th>Specific treatments</th>
<th>Paq5000 DNA Polymerase</th>
<th>No specific treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X Paq5000 DNA Polymerase</td>
<td>No specific treatment.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protection of first-aiders</th>
<th>Paq5000 DNA Polymerase</th>
<th>No action shall be taken involving any personal risk or without suitable training.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X Paq5000 DNA Polymerase</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
<td></td>
</tr>
</tbody>
</table>

See toxicological information (Section 11)

### Section 5. Firefighting measures

<table>
<thead>
<tr>
<th>Extinguishing media</th>
<th>Paq5000 DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable extinguishing media</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td>10X Paq5000 DNA Polymerase</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unsuitable extinguishing media</th>
<th>Paq5000 DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X Paq5000 DNA Polymerase</td>
<td>None known.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific hazards arising from the chemical</th>
<th>Paq5000 DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X Paq5000 DNA Polymerase</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazardous thermal decomposition products</th>
<th>Paq5000 DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X Paq5000 DNA Polymerase</td>
<td>Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special protective actions for fire-fighters</th>
<th>Paq5000 DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X Paq5000 DNA Polymerase</td>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special protective equipment for fire-fighters</th>
<th>Paq5000 DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X Paq5000 DNA Polymerase</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
</tbody>
</table>
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Paq5000 DNA Polymerase
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 spill material. Put on appropriate personal protective equipment.

10X Paq5000 DNA Polymerase Buffer
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:

Paq5000 DNA Polymerase
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".

10X Paq5000 DNA Polymerase Buffer
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".

Environmental precautions:

Paq5000 DNA Polymerase
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).

10X Paq5000 DNA Polymerase Buffer
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).

Methods and material for containment and cleaning up

Methods for cleaning up:

Paq5000 DNA Polymerase
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.

10X Paq5000 DNA Polymerase Buffer
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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures:

Paq5000 DNA Polymerase
Put on appropriate personal protective equipment (see Section 8).

10X Paq5000 DNA Polymerase Buffer
Put on appropriate personal protective equipment (see Section 8).
Section 7. Handling and storage

Advice on general occupational hygiene: 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.

Conditions for safe storage, including any incompatibilities: 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.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paq5000 DNA Polymerase</td>
<td>Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

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.
Section 8. Exposure controls and personal protection

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: safety glasses with side-shields.

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.

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.

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.

Section 9. Physical and chemical properties

Appearance

Physical state: Paq5000 DNA Polymerase Liquid.
10X Paq5000 DNA Polymerase Buffer Liquid.

Colour: Paq5000 DNA Polymerase Not available.
10X Paq5000 DNA Polymerase Buffer Not available.

Odour: Paq5000 DNA Polymerase Not available.
10X Paq5000 DNA Polymerase Buffer Not available.

Odour threshold: Paq5000 DNA Polymerase Not available.
10X Paq5000 DNA Polymerase Buffer Not available.

pH: Paq5000 DNA Polymerase 8.2
10X Paq5000 DNA Polymerase Buffer 10

Melting point: Paq5000 DNA Polymerase Not available.
10X Paq5000 DNA Polymerase Buffer Not available.

Boiling point: Paq5000 DNA Polymerase Not available.
10X Paq5000 DNA Polymerase Buffer Not available.

Flash point: Paq5000 DNA Polymerase Not available.
10X Paq5000 DNA Polymerase Buffer Not available.

Evaporation rate: Paq5000 DNA Polymerase Not available.
10X Paq5000 DNA Polymerase Buffer Not available.

Flammability (solid, gas): Paq5000 DNA Polymerase Not applicable.
10X Paq5000 DNA Polymerase Buffer Not applicable.

Lower and upper explosive (flammable) limits: Paq5000 DNA Polymerase Not available.
10X Paq5000 DNA Polymerase Buffer Not available.

Vapour pressure: Paq5000 DNA Polymerase Not available.
10X Paq5000 DNA Polymerase Buffer Not available.
Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Paq5000 DNA Polymerase</th>
<th>10X Paq5000 DNA Polymerase Buffer</th>
<th>Not available.</th>
<th>Paq5000 DNA Polymerase</th>
<th>10X Paq5000 DNA Polymerase Buffer</th>
<th>Not available.</th>
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</thead>
<tbody>
<tr>
<td>Vapour density</td>
<td>Paq5000 DNA Polymerase</td>
<td>Not available.</td>
<td>Not available.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Paq5000 DNA Polymerase</td>
<td>Not available.</td>
<td>Not available.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Paq5000 DNA Polymerase</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Paq5000 DNA Polymerase</td>
<td>Not available.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Paq5000 DNA Polymerase</td>
<td>Not available.</td>
<td>Not available.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Paq5000 DNA Polymerase</td>
<td>Not available.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>Paq5000 DNA Polymerase</td>
<td>Not available.</td>
<td>Not available.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Paq5000 DNA Polymerase</th>
<th>10X Paq5000 DNA Polymerase Buffer</th>
<th>Not available.</th>
<th>10X Paq5000 DNA Polymerase Buffer</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>Paq5000 DNA Polymerase</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Paq5000 DNA Polymerase</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Paq5000 DNA Polymerase</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Paq5000 DNA Polymerase</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Paq5000 DNA Polymerase</td>
<td>May react or be incompatible with oxidising materials.</td>
<td>May react or be incompatible with oxidising materials.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Paq5000 DNA Polymerase</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>10X Paq5000 DNA Polymerase Buffer</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

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>Paq5000 DNA Polymerase</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paq5000 DNA Polymerase</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure:

Paq5000 DNA Polymerase: Routes of entry anticipated: Oral, Dermal, Inhalation.

10X Paq5000 DNA Polymerase Buffer: Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact: Paq5000 DNA Polymerase: No known significant effects or critical hazards.

10X Paq5000 DNA Polymerase Buffer: No known significant effects or critical hazards.

Inhalation: Paq5000 DNA Polymerase: No known significant effects or critical hazards.

10X Paq5000 DNA Polymerase Buffer: No known significant effects or critical hazards.

Skin contact: Paq5000 DNA Polymerase: No known significant effects or critical hazards.

10X Paq5000 DNA Polymerase Buffer: No known significant effects or critical hazards.

Ingestion: Paq5000 DNA Polymerase: No known significant effects or critical hazards.

10X Paq5000 DNA Polymerase Buffer: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics
# Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Paq5000 DNA Polymerase</th>
<th>10X Paq5000 DNA Polymerase Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

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

**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**
Not available.

**General**
- **Paq5000 DNA Polymerase**: No known significant effects or critical hazards.
- **10X Paq5000 DNA Polymerase Buffer**: No known significant effects or critical hazards.

**Carcinogenicity**
- **Paq5000 DNA Polymerase**: No known significant effects or critical hazards.
- **10X Paq5000 DNA Polymerase Buffer**: No known significant effects or critical hazards.

**Mutagenicity**
- **Paq5000 DNA Polymerase**: No known significant effects or critical hazards.
- **10X Paq5000 DNA Polymerase Buffer**: No known significant effects or critical hazards.

**Teratogenicity**
- **Paq5000 DNA Polymerase**: No known significant effects or critical hazards.
- **10X Paq5000 DNA Polymerase Buffer**: No known significant effects or critical hazards.

**Developmental effects**
- **Paq5000 DNA Polymerase**: No known significant effects or critical hazards.
- **10X Paq5000 DNA Polymerase Buffer**: No known significant effects or critical hazards.

**Fertility effects**
- **Paq5000 DNA Polymerase**: No known significant effects or critical hazards.
- **10X Paq5000 DNA Polymerase Buffer**: No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**
Not available.
Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paq5000 DNA Polymerase</td>
<td></td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td>Glycerol</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability

Not available.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paq5000 DNA Polymerase</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>): Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods: 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

ADG / IMDG / IATA: Not regulated as Dangerous Goods according to the ADG Code.

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.

Transport in bulk according to Annex II of Marpol and the IBC Code: Not available.

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons
Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances
No listed substance

International regulations

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

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Montreal Protocol (Annexes A, B, C, E)
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>Status</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>Europe</td>
<td>Not determined.</td>
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</tbody>
</table>
| Japan            | Japan inventory (ENCS): Not determined.  
                   Japan inventory (ISHL): Not determined. |
| Malaysia         | Not determined.               |
| New Zealand      | Not determined.               |
| Philippines      | Not determined.               |
| Republic of Korea| Not determined.               |
| Taiwan           | All components are listed or exempted. |
| Thailand         | Not determined.               |
| Turkey           | Not determined.               |
| United States    | Not determined.               |
| Viet Nam         | Not determined.               |

Section 16. Any other relevant information

History

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Key to abbreviations

- ADG = Australian Dangerous Goods
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- NOHSC = National Occupational Health and Safety Commission
- SUSMP = Standard Uniform Schedule of Medicine and Poisons
- UN = United Nations

Procedure used to derive the classification

<table>
<thead>
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<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
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References

Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Date of issue/Date of revision: 18/05/2017
Date of previous issue: 30/01/2015.
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Section 16. Any other relevant information

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