Section 1. Identification

Product identifier: Paq5000 Hotstart DNA Polymerase, Part Number 600860
Part no. (chemical kit): 600860
Part no.: Paq5000 Hotstart DNA Polymerase 600860-51
10X Paq5000 Hotstart DNA Polymerase Buffer 600860-52

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

Material uses: Analytical reagent.
Paq5000 Hotstart DNA Polymerase 0.1 ml (500 U 5.0 U/µl)
10X Paq5000 Hotstart DNA Polymerase Buffer 1 ml

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.

Paq5000 Hotstart DNA Polymerase Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 9.8%
10X Paq5000 Hotstart DNA Polymerase Buffer Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.5%

GHS label elements

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

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

Precautionary statements

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

Response: Paq5000 Hotstart DNA Polymerase Not applicable.
10X Paq5000 Hotstart DNA Polymerase Buffer Not applicable.
Section 2. Hazard(s) identification

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

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

Supplemental label elements

Additional warning phrases: Paq5000 Hotstart DNA Polymerase Not applicable.
10X Paq5000 Hotstart DNA Polymerase Buffer Not applicable.

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

Section 3. Composition and ingredient information

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

CAS number/other identifiers

There are no 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 Hotstart 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 Hotstart 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 Hotstart 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 Hotstart 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 Hotstart DNA Polymerase: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- 10X Paq5000 Hotstart DNA Polymerase Buffer: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**
- Paq5000 Hotstart DNA Polymerase: 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.
- 10X Paq5000 Hotstart DNA Polymerase Buffer: 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.

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

**Potential acute health effects**

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

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

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

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

**Over-exposure signs/symptoms**

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

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

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

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

**Indication of immediate medical attention and special treatment needed, if necessary**
### Section 4. First aid measures

<table>
<thead>
<tr>
<th>Notes to physician</th>
<th>Paq5000 Hotstart DNA Polymerase</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA Polymerase Buffer</td>
<td>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>

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

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

See toxicological information (Section 11)

### Section 5. Firefighting measures

<table>
<thead>
<tr>
<th>Extinguishing media</th>
<th>Paq5000 Hotstart DNA Polymerase</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA Polymerase Buffer</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 Hotstart DNA Polymerase</th>
<th>None known.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA Polymerase Buffer</td>
<td>None known.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific hazards arising from the chemical</th>
<th>Paq5000 Hotstart DNA Polymerase</th>
<th>In a fire or if heated, a pressure increase will occur and the container may burst.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA Polymerase Buffer</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 Hotstart DNA Polymerase</th>
<th>Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides, metal oxide/oxides</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA Polymerase Buffer</td>
<td>Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides, metal oxide/oxides</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special protective actions for fire-fighters</th>
<th>Paq5000 Hotstart DNA Polymerase</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA Polymerase Buffer</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>
Section 5. Firefighting measures

**Special protective equipment for fire-fighters**

- **Paq5000 Hotstart DNA Polymerase**
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- **10X Paq5000 Hotstart DNA Polymerase Buffer**
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**

- **Paq5000 Hotstart 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 spilt material. Put on appropriate personal protective equipment.

- **10X Paq5000 Hotstart 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 Hotstart 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 Hotstart 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 Hotstart 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 Hotstart 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 Hotstart 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 Hotstart 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**

<table>
<thead>
<tr>
<th>Protective measures</th>
<th>Paq5000 Hotstart DNA Polymerase</th>
<th>Put on appropriate personal protective equipment (see Section 8).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
</tr>
<tr>
<td></td>
<td>Polymerase Buffer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Advice on general occupational hygiene</th>
<th>Paq5000 Hotstart DNA Polymerase</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Polymerase Buffer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conditions for safe storage, including any incompatibilities</th>
<th>Paq5000 Hotstart DNA Polymerase</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Polymerase Buffer</td>
<td></td>
</tr>
</tbody>
</table>

### Section 8. Exposure controls and personal protection

**Control parameters**

**Occupational exposure limits**

None.

**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.
Section 8. Exposure controls and personal protection

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: safety glasses with side-shields.

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.

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 and safety characteristics

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

Appearance

Physical state: Paq5000 Hotstart DNA Polymerase
10X Paq5000 Hotstart DNA Polymerase Buffer

Colour: Paq5000 Hotstart DNA Polymerase
10X Paq5000 Hotstart DNA Polymerase Buffer

Odour: Paq5000 Hotstart DNA Polymerase
10X Paq5000 Hotstart DNA Polymerase Buffer

Odour threshold: Paq5000 Hotstart DNA Polymerase
10X Paq5000 Hotstart DNA Polymerase Buffer

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

Melting point/freezing point: Paq5000 Hotstart DNA Polymerase
10X Paq5000 Hotstart DNA Polymerase Buffer

Boiling point, initial boiling point, and boiling range: Paq5000 Hotstart DNA Polymerase
10X Paq5000 Hotstart DNA Polymerase Buffer

Date of issue/Date of revision: 10/03/2022
Date of previous issue: 02/08/2019
Version: 6

Section 9. Physical and chemical properties and safety characteristics

### Flash point
- **Paq5000 Hotstart DNA Polymerase**: Not available.
- **10X Paq5000 Hotstart DNA Polymerase Buffer**: Not available.

### Evaporation rate
- **Paq5000 Hotstart DNA Polymerase**: Not available.
- **10X Paq5000 Hotstart DNA Polymerase Buffer**: Not available.

### Flammability
- **Paq5000 Hotstart DNA Polymerase**: Not applicable.
- **10X Paq5000 Hotstart DNA Polymerase Buffer**: Not applicable.

### Lower and upper explosion limit/flammability limit
- **Paq5000 Hotstart DNA Polymerase**: Not available.
- **10X Paq5000 Hotstart DNA Polymerase Buffer**: Not available.

### Vapour pressure

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Vapour Pressure at 20°C</th>
<th>Vapour pressure at 50°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mm Hg</td>
<td>kPa</td>
</tr>
<tr>
<td>Paq5000 Hotstart DNA Polymerase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>23.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Ammonium sulphate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10X Paq5000 Hotstart DNA Polymerase Buffer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>23.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Sulfuric acid, magnesium salt, hydrate (1:1:7)</td>
<td>&lt;0.1</td>
<td>&lt;0.013</td>
</tr>
</tbody>
</table>

### Relative vapour density
- **Paq5000 Hotstart DNA Polymerase**: Not available.
- **10X Paq5000 Hotstart DNA Polymerase Buffer**: Not available.

### Relative density
- **Paq5000 Hotstart DNA Polymerase**: Not available.
- **10X Paq5000 Hotstart DNA Polymerase Buffer**: Not available.

### Solubility
- **Paq5000 Hotstart DNA Polymerase**: Easily soluble in the following materials: cold water and hot water.
- **10X Paq5000 Hotstart DNA Polymerase Buffer**: Easily soluble in the following materials: cold water and hot water.

### Partition coefficient: n-octanol/water
- **Paq5000 Hotstart DNA Polymerase**: Not applicable.
- **10X Paq5000 Hotstart DNA Polymerase Buffer**: Not applicable.

### Auto-ignition temperature
- **Paq5000 Hotstart DNA Polymerase**: Not available.
- **10X Paq5000 Hotstart DNA Polymerase Buffer**: Not available.

### Decomposition temperature
- **Paq5000 Hotstart DNA Polymerase**: Not available.
- **10X Paq5000 Hotstart DNA Polymerase Buffer**: Not available.
## Section 9. Physical and chemical properties and safety characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>10X Paq5000 Hotstart DNA</td>
<td>Not available.</td>
</tr>
<tr>
<td>Polymerase Buffer</td>
<td></td>
</tr>
<tr>
<td>Particle characteristics</td>
<td></td>
</tr>
<tr>
<td>Median particle size</td>
<td>Paq5000 Hotstart DNA</td>
</tr>
<tr>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA</td>
</tr>
<tr>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>Polymerase Buffer</td>
</tr>
</tbody>
</table>

## Section 10. Stability and reactivity

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

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity
Not available.

#### Irritation/Corrosion
Not available.

#### Sensitisation
Not available.

#### Mutagenicity
Conclusion/Summary: Not available.
Section 11. Toxicological information

Carcinogenicity
Conclusion/Summary: Not available.

Reproductive toxicity
Conclusion/Summary: Not available.

Teratogenicity
Conclusion/Summary: 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

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Paq5000 Hotstart DNA Polymerase</th>
<th>Routes of entry anticipated: Oral, Dermal, Inhalation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>Paq5000 Hotstart DNA Polymerase</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Potential acute health effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Paq5000 Hotstart DNA Polymerase</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Paq5000 Hotstart DNA Polymerase</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Paq5000 Hotstart DNA Polymerase</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Paq5000 Hotstart DNA Polymerase</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>10X Paq5000 Hotstart DNA Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Symptoms related to the physical, chemical and toxicological characteristics

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

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

Date of issue/Date of revision: 10/03/2022
Date of previous issue: 02/08/2019
Version: 6
Section 11. Toxicological information

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 effects

General:

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

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

Carcinogenicity:

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

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

Mutagenicity:

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

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

Reproductive toxicity:

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

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

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation (gases) (ppm)</th>
<th>Inhalation (vapours) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
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</table>

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (Koc): 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 spilt 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 IMO instruments

Not available.

Section 15. Regulatory information

**Standard for the Uniform Scheduling of Medicines 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.

- **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**

- **Australia**
  Not determined.

- **Canada**
  Not determined.

- **China**
  Not determined.

- **Europe**
  Not determined.

- **Japan**
  Japan inventory (CSCL): Not determined.
  Japan inventory (ISHL): Not determined.

- **New Zealand**
  Not determined.

- **Philippines**
  Not determined.

- **Republic of Korea**
  Not determined.

- **Taiwan**
  All components are listed or exempted.

- **Thailand**
  Not determined.
Section 15. Regulatory information

Turkey : Not determined.
United States : Not determined.
Viet Nam : Not determined.

Section 16. Any other relevant information

History
Date of issue/Date of revision : 10/03/2022
Date of previous issue : 02/08/2019
Version : 6
Key to abbreviations
ADG = Australian Dangerous Goods
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
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
N/A = Not available
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations

Procedure used to derive the classification

<table>
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<th>Classification</th>
</tr>
</thead>
<tbody>
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References : Not available.

Indicates information that has changed from previously issued version.

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