SAFETY DATA SHEET
PicoMaxx High Fidelity PCR System, Part Number 600422

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

1.1 Product identifier

Product name: PicoMaxx High Fidelity PCR System, Part Number 600422

Part no. (chemical kit): 600422

Part no.: PicoMaxx High Fidelity PCR System 600422-51

10X PicoMaxx Reaction Buffer 600420-52

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

Identified uses: Not available.

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
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: PicoMaxx High Fidelity PCR System

Mixture

10X PicoMaxx Reaction Buffer

Mixture

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

PicoMaxx High Fidelity PCR System

H412 LONG-TERM (CHRONIC) AQUATIC HAZARD Category 3

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

10X PicoMaxx Reaction Buffer

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity: PicoMaxx High Fidelity PCR System

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%

10X PicoMaxx Reaction Buffer

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%

SECTION 2: Hazards identification

### Ingredients of unknown ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X PicoMaxx Reaction Buffer</td>
<td>Contains 2% of components with unknown hazards to the aquatic environment</td>
</tr>
</tbody>
</table>

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

#### Signal word

- **PicoMaxx High Fidelity PCR System**: No signal word.
- **10X PicoMaxx Reaction Buffer**: No signal word.

#### Hazard statements

- **PicoMaxx High Fidelity PCR System**: H412 - Harmful to aquatic life with long lasting effects.
- **10X PicoMaxx Reaction Buffer**: No known significant effects or critical hazards.

#### Precautionary statements

- **Prevention**: P273 - Avoid release to the environment.
- **Response**: Not applicable.
- **Storage**: Not applicable.
- **Disposal**: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- **Hazardous ingredients**: Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-
- ** Supplemental label elements**: Not applicable.
- **Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**: Safety data sheet available on request.

### Tactile warning of danger

- **PicoMaxx High Fidelity PCR System**: Not applicable.
- **10X PicoMaxx Reaction Buffer**: Not applicable.

### 2.3 Other hazards

**Note:**

- **Date of issue/Date of revision**: 05/10/2022
- **Date of previous issue**: No previous validation
- **Version**: 1
SECTION 2: Hazards identification

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII:

PicoMaxx High Fidelity PCR System

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

10X PicoMaxx Reaction Buffer

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification:

PicoMaxx High Fidelity PCR System

Contains one or more substances considered to have endocrine-disrupting properties.

10X PicoMaxx Reaction Buffer

None known.

Substances identified as having endocrine disruptor properties:

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System</td>
<td>Environment</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[1,1,3,3-tetramethylbutyl]phenyl].omega.-hydroxy-</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 3: Composition/information on ingredients

3.1 Substances:

Product/ingredient name: PicoMaxx High Fidelity PCR System

Identifiers: Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
<th>Specific Conc. Limits, M-factors and ATEs</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[1,1,3,3-tetramethylbutyl]phenyl].omega.-hydroxy-</td>
<td>CAS: 9036-19-5</td>
<td>&lt;1</td>
<td>Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410</td>
<td>ATE [Oral] = 500 mg/kg M [Acute] = 10 M [Chronic] = 1</td>
<td>[1] [3]</td>
</tr>
</tbody>
</table>

Product/ingredient name: 10X PicoMaxx Reaction Buffer

Identifiers: Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
<th>Specific Conc. Limits, M-factors and ATEs</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trometamol</td>
<td>EC: 201-064-4, CAS: 77-86-1</td>
<td>&lt;10</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2, H319</td>
<td>-</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:

PicoMaxx High Fidelity PCR System

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance of equivalent concern

10X PicoMaxx Reaction Buffer

[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: PicoMaxx High Fidelity PCR System
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: PicoMaxx High Fidelity PCR System
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.

Skin contact: PicoMaxx High Fidelity PCR System
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion: PicoMaxx High Fidelity PCR System
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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: PicoMaxx High Fidelity PCR System
No known significant effects or critical hazards.

Inhalation: PicoMaxx High Fidelity PCR System
No known significant effects or critical hazards.

Skin contact: PicoMaxx High Fidelity PCR System
No known significant effects or critical hazards.

Ingestion: PicoMaxx High Fidelity PCR System
No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: PicoMaxx High Fidelity PCR System
No specific data.
SECTION 4: First aid measures

### Inhalation
- PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer
- No specific data.

### Skin contact
- PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer
- No specific data.

### Ingestion
- PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer
- No specific data.

#### Notes to physician
- PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer
- 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.

#### Specific treatments
- PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer
- No specific treatment.

SECTION 5: Firefighting measures

### 5.1 Extinguishing media
- Suitable extinguishing media
  - PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer
  - Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media
  - PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer
  - None known.

### 5.2 Special hazards arising from the substance or mixture
- Hazards from the substance or mixture
  - PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer
  - In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful 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.
- Hazardous combustion products
  - PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer
  - Decomposition products may include the following materials:
    - carbon dioxide
    - carbon monoxide

### 5.3 Advice for firefighters
SECTION 5: Firefighting measures

Special precautions for fire-fighters:
- PicoMaxx High Fidelity PCR System
- 10X PicoMaxx Reaction Buffer

Special protective equipment for fire-fighters:
- PicoMaxx High Fidelity PCR System
- 10X PicoMaxx Reaction Buffer

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:
- PicoMaxx High Fidelity PCR System
- 10X PicoMaxx Reaction 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 spilled material. Put on appropriate personal protective equipment.

For emergency responders:
- PicoMaxx High Fidelity PCR System
- 10X PicoMaxx Reaction 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".

6.2 Environmental precautions:
- PicoMaxx High Fidelity PCR System
- 10X PicoMaxx Reaction Buffer

Avoid dispersal of spill 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:
- PicoMaxx High Fidelity PCR System
- 10X PicoMaxx Reaction 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. May be harmful to the environment if released. Dispose of spillages under controlled conditions.
SECTION 6: Accidental release measures

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:
- PicoMaxx High Fidelity PCR System: 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.
- 10X PicoMaxx Reaction Buffer: Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene:
- PicoMaxx High Fidelity PCR System: 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.
- 10X PicoMaxx Reaction Buffer: 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:
- PicoMaxx High Fidelity PCR System: 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.
- 10X PicoMaxx Reaction Buffer: 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.

7.3 Specific end use(s)

Recommendations:
- PicoMaxx High Fidelity PCR System: Industrial applications, Professional applications.
- 10X PicoMaxx Reaction Buffer: Industrial applications, Professional applications.
**SECTION 7: Handling and storage**

**Industrial sector specific solutions**

- PicoMaxx High Fidelity PCR System: Not available.
- 10X PicoMaxx Reaction Buffer: Not available.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System</td>
<td>NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Value (OELV)</td>
</tr>
<tr>
<td>Glycerol</td>
<td>OELV-8hr: 10 mg/m³ 8 hours. Form: mist</td>
</tr>
</tbody>
</table>

**Biological exposure indices**

None known.

**Recommended monitoring procedures**

Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) 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>10X PicoMaxx Reaction Buffer</td>
<td>DNEL</td>
<td>Long term Oral</td>
<td>8.3 mg/kg bw/day</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td>Trometamol</td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>29 mg/m³</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Dermal</td>
<td>83.3 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>117.5 mg/m³</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Dermal</td>
<td>166.7 mg/kg bw/day</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
</tbody>
</table>

**PNECs**

No PNECs available

**8.2 Exposure controls**

**Appropriate engineering controls**

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**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: safety glasses with side-shields.

**Date of issue/Date of revision**: 05/10/2022  
**Date of previous issue**: No previous validation  
**Version**: 1
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.

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 | PicoMaxx High Fidelity PCR System | Liquid. |
| 10X PicoMaxx Reaction Buffer | Liquid. |

Colour: Not available.

Odour: Not available.

Odour threshold: Not available.

Melting point/freezing point: Not available.

Initial boiling point and boiling range: Not available.

Flammability: Not applicable.
### SECTION 9: Physical and chemical properties

**Upper/lower flammability or explosive limits**
- PicoMaxx High Fidelity PCR System: Not available.
- 10X PicoMaxx Reaction Buffer: Not available.

**Flash point**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Closed cup</th>
<th>Open cup</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>°C Method</td>
<td>°C Method</td>
</tr>
<tr>
<td>PicoMaxx High Fidelity PCR System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>8.83</td>
<td></td>
</tr>
<tr>
<td>10X PicoMaxx Reaction Buffer</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Sorbitan monolaurate, ethoxylated</td>
<td>275</td>
<td>290</td>
</tr>
</tbody>
</table>

**Auto-ignition temperature**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>°C Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System</td>
<td>370</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
</tr>
</tbody>
</table>

**Decomposition temperature**

- PicoMaxx High Fidelity PCR System: Not available.
- 10X PicoMaxx Reaction Buffer: Not available.

**pH**

- PicoMaxx High Fidelity PCR System: 8
- 10X PicoMaxx Reaction Buffer: 8.83

**Viscosity**

- PicoMaxx High Fidelity PCR System: Not available.
- 10X PicoMaxx Reaction Buffer: Not available.

**Solubility(ies)**

<table>
<thead>
<tr>
<th>Media</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System water</td>
<td>Soluble</td>
</tr>
<tr>
<td>10X PicoMaxx Reaction Buffer water</td>
<td>Soluble</td>
</tr>
</tbody>
</table>

**Partition coefficient: n-octanol/water**

- PicoMaxx High Fidelity PCR System: Not applicable.
- 10X PicoMaxx Reaction Buffer: Not applicable.

**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>PicoMaxx High Fidelity PCR System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>23.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Glycerol</td>
<td>0.000075</td>
<td>0.00001</td>
</tr>
<tr>
<td>10X PicoMaxx Reaction Buffer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>23.8</td>
<td>3.2</td>
</tr>
</tbody>
</table>
PicoMaxx High Fidelity PCR System, Part Number 600422

SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>PicoMaxx High Fidelity PCR System</th>
<th>10X PicoMaxx Reaction Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Particle characteristics**

<table>
<thead>
<tr>
<th>Median particle size</th>
<th>PicoMaxx High Fidelity PCR System</th>
<th>10X PicoMaxx Reaction Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>PicoMaxx High Fidelity PCR System</th>
<th>10X PicoMaxx Reaction Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td></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>
</tr>
</tbody>
</table>

10.2 Chemical stability

<table>
<thead>
<tr>
<th>Property</th>
<th>PicoMaxx High Fidelity PCR System</th>
<th>10X PicoMaxx Reaction Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The product is stable.</td>
<td>The product is stable.</td>
</tr>
</tbody>
</table>

10.3 Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Property</th>
<th>PicoMaxx High Fidelity PCR System</th>
<th>10X PicoMaxx Reaction Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td></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>
</tr>
</tbody>
</table>

10.4 Conditions to avoid

<table>
<thead>
<tr>
<th>Property</th>
<th>PicoMaxx High Fidelity PCR System</th>
<th>10X PicoMaxx Reaction Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Property</th>
<th>PicoMaxx High Fidelity PCR System</th>
<th>10X PicoMaxx Reaction Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>May react or be incompatible with oxidising materials.</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products

PicoMaxx High Fidelity PCR System
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

10X PicoMaxx Reaction Buffer
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>PicoMaxx High Fidelity PCR System</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2800 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10X PicoMaxx Reaction Buffer</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Trometamol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System</td>
<td>500</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-</td>
<td></td>
<td></td>
<td></td>
<td></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>PicoMaxx High Fidelity PCR System</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>1 %</td>
<td>-</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10X PicoMaxx Reaction Buffer</td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>25 %</td>
<td>-</td>
</tr>
<tr>
<td>Trometamol</td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

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)

Not available.
SECTION 11: Toxicological information

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Product</th>
<th>Routes of entry anticipated</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System</td>
<td>Oral, Dermal, Inhalation, Eyes</td>
</tr>
<tr>
<td>10X PicoMaxx Reaction Buffer</td>
<td>Oral, Dermal, Inhalation, Eyes</td>
</tr>
</tbody>
</table>

Potential acute health effects

Inhalation: PicoMaxx High Fidelity PCR System
- No known significant effects or critical hazards.
- No known significant effects or critical hazards.

Ingestion: PicoMaxx High Fidelity PCR System
- No known significant effects or critical hazards.
- No known significant effects or critical hazards.

Skin contact: PicoMaxx High Fidelity PCR System
- No known significant effects or critical hazards.
- No known significant effects or critical hazards.

Eye contact: PicoMaxx High Fidelity PCR System
- No known significant effects or critical hazards.
- No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: PicoMaxx High Fidelity PCR System
- No specific data.
- No specific data.

Ingestion: PicoMaxx High Fidelity PCR System
- No specific data.
- No specific data.

Skin contact: PicoMaxx High Fidelity PCR System
- No specific data.
- No specific data.

Eye contact: PicoMaxx High Fidelity PCR System
- No specific data.
- No specific data.

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
SECTION 11: Toxicological information

General:
PicoMaxx High Fidelity PCR System
10X PicoMaxx Reaction Buffer
No known significant effects or critical hazards.

Carcinogenicity:
PicoMaxx High Fidelity PCR System
10X PicoMaxx Reaction Buffer
No known significant effects or critical hazards.

Mutagenicity:
PicoMaxx High Fidelity PCR System
10X PicoMaxx Reaction Buffer
No known significant effects or critical hazards.

Reproductive toxicity:
PicoMaxx High Fidelity PCR System
10X PicoMaxx Reaction Buffer
No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System</td>
<td>Acute EC50 210 µg/l Fresh water</td>
<td>Algae - Selenastrum sp.</td>
<td>96 hours</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), α-[1,1,3,3-tetramethylbutyl]phenyl]-ω-hydroxy-</td>
<td>Acute LC50 10800 µg/l Marine water</td>
<td>Crustaceans - Pandalus montagui - Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 8600 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 7200 µg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td>10X PicoMaxx Reaction Buffer</td>
<td>Acute EC50 &gt;980 mg/l Fresh water</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td>Trometamol</td>
<td>Acute NOEC 520 mg/l Fresh water</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X PicoMaxx Reaction Buffer</td>
<td>OECD 301F Ready Biodegradability - Manometric Respirometry Test</td>
<td>97.1 % - Readily - 28 days</td>
<td>30 mg/l</td>
<td>-</td>
</tr>
</tbody>
</table>
SECTION 12: Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10X PicoMaxx Reaction Buffer</strong></td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>Trometamol</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.3 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><strong>PicoMaxx High Fidelity PCR System</strong></td>
<td>2.7</td>
<td>78.67</td>
<td>low</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl].-omega.-hydroxy-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>10X PicoMaxx Reaction Buffer</strong></td>
<td>-2.31</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Trometamol</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

PicoMaxx High Fidelity PCR System : Contains one or more substances considered to have endocrine-disrupting properties.

12.7 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 : Dispose of material(s) and residues under controlled conditions. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN number or ID number</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
</table>

| 14.2 UN proper shipping name | - | - | - |

| 14.3 Transport hazard class(es) | - | - | - |

| 14.4 Packing group | - | - | - |

| 14.5 Environmental hazards | No. | No. | No. |

Additional information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Intrinsic property</th>
<th>Status</th>
<th>Reference number</th>
<th>Date of revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System Poly(oxy-1,2-ethanediyl).alpha.-[1,1,3,3-tetramethylbutyl]phenyl].omega.-hydroxy-</td>
<td>Endocrine disrupting properties for environment</td>
<td>Listed</td>
<td>42</td>
<td>7/3/2017</td>
</tr>
</tbody>
</table>

Substances of very high concern

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Intrinsic property</th>
<th>Status</th>
<th>Reference number</th>
<th>Date of revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System Poly(oxy-1,2-ethanediyl).alpha.-[1,1,3,3-tetramethylbutyl]phenyl].omega.-hydroxy-</td>
<td>Endocrine disrupting properties for environment</td>
<td>Recommended</td>
<td>ED/169/2012</td>
<td>7/3/2017</td>
</tr>
</tbody>
</table>

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

Not listed.

Label: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer

Other EU regulations

Date of issue/Date of revision: 05/10/2022 Date of previous issue: No previous validation Version: 1
SECTION 15: Regulatory information

Ozone depleting substances (1005/2009/EU)
Not listed.

Prior Informed Consent (PIC) (649/2012/EU)
Not listed.

Persistent Organic Pollutants
Not listed.

Seveso Directive
This product is not controlled under the Seveso Directive.

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.
Eurasian Economic Union : Russian Federation inventory: 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.
Turkey : Not determined.
United States : All components are active or exempted.
Viet Nam : Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

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

Date of issue/Date of revision : 05/10/2022  Date of previous issue : No previous validation  Version : 1
### PicoMaxx High Fidelity PCR System, Part Number 600422

#### SECTION 16: Other information

**Notice to reader**

- Date of issue/revision: 05/10/2022
- Date of previous issue: No previous validation
- Version: 1

**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.

---

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 3, H412</td>
<td></td>
</tr>
</tbody>
</table>

**Full text of abbreviated H statements**

- **H302**: Harmful if swallowed.
- **H315**: Causes skin irritation.
- **H318**: Causes serious eye damage.
- **H400**: Very toxic to aquatic life.
- **H410**: Very toxic to aquatic life with long lasting effects.
- **H412**: Harmful to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicoMaxx High Fidelity PCR System</td>
<td>ACUTE TOXICITY - Category 4</td>
</tr>
<tr>
<td></td>
<td>SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1</td>
</tr>
<tr>
<td></td>
<td>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1</td>
</tr>
<tr>
<td></td>
<td>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3</td>
</tr>
<tr>
<td></td>
<td>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1</td>
</tr>
<tr>
<td></td>
<td>SKIN CORROSION/IRRITATION - Category 2</td>
</tr>
<tr>
<td>10X PicoMaxx Reaction Buffer</td>
<td>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2</td>
</tr>
<tr>
<td></td>
<td>SKIN CORROSION/IRRITATION - Category 2</td>
</tr>
</tbody>
</table>

---

**PBT =** Persistent, Bioaccumulative and Toxic
**PNEC =** Predicted No Effect Concentration
**RRN =** REACH Registration Number
**vPvB =** Very Persistent and Very Bioaccumulative