Conforms to Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals

SAFETY DATA SHEET

BRCA HP

Section 1. Identification

Product identifier : BRCA HP
Part No. (Chemical Kit) : MP-0401.050
Part No. :
- PCR Mix Plex 1 I-0674
- PCR Mix Plex 2 I-0675
- Taq DNA Polymerase I-0676

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

Analytical reagent.
For Research Use Only. Not for use in diagnostic procedures.
0.515 ml
- PCR Mix Plex 1 2 x 0.125 ml
- PCR Mix Plex 2 2 x 0.125 ml
- Taq DNA Polymerase 0.015 ml

Supplier/Manufacturer : Agilent Technologies Belgium
De Kleetlaan 5 bus 9
1831 Diegem
Belgium

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

Section 2. Hazard(s) identification

Classification of the substance or mixture
Not classified.

- Taq DNA Polymerase Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%

GHS label elements

Signal word :
- PCR Mix Plex 1 No signal word.
- PCR Mix Plex 2 No signal word.
- Taq DNA Polymerase No signal word.

Hazard statements :
- PCR Mix Plex 1 No known significant effects or critical hazards.
- PCR Mix Plex 2 No known significant effects or critical hazards.
- Taq DNA Polymerase No known significant effects or critical hazards.

Precautionary statements

Prevention :
- PCR Mix Plex 1 Not applicable.
- PCR Mix Plex 2 Not applicable.
- Taq DNA Polymerase Not applicable.

Response :
- PCR Mix Plex 1 Not applicable.
- PCR Mix Plex 2 Not applicable.
- Taq DNA Polymerase Not applicable.

Storage :
- PCR Mix Plex 1 Not applicable.
- PCR Mix Plex 2 Not applicable.
- Taq DNA Polymerase Not applicable.

Disposal :
- PCR Mix Plex 1 Not applicable.
- PCR Mix Plex 2 Not applicable.
- Taq DNA Polymerase Not applicable.

Date of issue/Date of revision : 30/08/2017
Date of previous issue : 07/07/2017.
Version : 1.1
Section 2. Hazard(s) identification

<table>
<thead>
<tr>
<th>Supplemental label elements</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other hazards which do not result in classification</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td>None known.</td>
<td>None known.</td>
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</table>

Section 3. Composition and ingredient information

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixture</td>
<td>Mixture</td>
<td>Mixture</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taq DNA Polymerase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>≥30 - ≤60</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

<table>
<thead>
<tr>
<th>Description of necessary first aid measures</th>
<th>Eye contact</th>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>PCR Mix Plex 1</td>
<td>PCR Mix Plex 1</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>PCR Mix Plex 2</td>
</tr>
<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>Taq DNA Polymerase</td>
</tr>
</tbody>
</table>

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.

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.

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.

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.

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.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
## Section 4. First aid measures

### Skin contact

<table>
<thead>
<tr>
<th>Compound</th>
<th>First Aid Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR Mix Plex 1</td>
<td>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.</td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>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.</td>
</tr>
<tr>
<td>Taq DNA Polymerase</td>
<td>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.</td>
</tr>
</tbody>
</table>

### Ingestion

<table>
<thead>
<tr>
<th>Compound</th>
<th>First Aid Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR Mix Plex 1</td>
<td>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.</td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>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.</td>
</tr>
<tr>
<td>Taq DNA Polymerase</td>
<td>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.</td>
</tr>
</tbody>
</table>

### Potential acute health effects

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

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>PCR Mix Plex 1</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>PCR Mix Plex 1</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>PCR Mix Plex 1</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>PCR Mix Plex 1</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

#### Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>PCR Mix Plex 1</th>
<th>No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>PCR Mix Plex 1</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>PCR Mix Plex 1</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>No specific data.</td>
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<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>No specific data.</td>
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<tr>
<td>Ingestion</td>
<td>PCR Mix Plex 1</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>
Section 4. First aid measures

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

Notes to physician:
- PCR Mix Plex 1: 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.
- PCR Mix Plex 2: 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.
- Taq DNA Polymerase: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments:
- PCR Mix Plex 1: No specific treatment.
- PCR Mix Plex 2: No specific treatment.
- Taq DNA Polymerase: No specific treatment.

Protection of first-aiders:
- PCR Mix Plex 1: No action shall be taken involving any personal risk or without suitable training.
- PCR Mix Plex 2: No action shall be taken involving any personal risk or without suitable training.
- Taq DNA Polymerase: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media:
- Suitable extinguishing media:
  - PCR Mix Plex 1: Use an extinguishing agent suitable for the surrounding fire.
  - PCR Mix Plex 2: Use an extinguishing agent suitable for the surrounding fire.
  - Taq DNA Polymerase: Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media:
  - PCR Mix Plex 1: None known.
  - PCR Mix Plex 2: None known.
  - Taq DNA Polymerase: None known.

Specific hazards arising from the chemical:
- PCR Mix Plex 1: In a fire or if heated, a pressure increase will occur and the container may burst.
- PCR Mix Plex 2: In a fire or if heated, a pressure increase will occur and the container may burst.
- Taq DNA Polymerase: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products:
- PCR Mix Plex 1: Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  - nitrogen oxides
  - phosphorus oxides
- PCR Mix Plex 2: Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  - nitrogen oxides
  - phosphorus oxides
- Taq DNA Polymerase: Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
### Section 5. Firefighting measures

**Special protective actions for fire-fighters**
- **PCR Mix Plex 1**
  - 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.

- **PCR Mix Plex 2**
  - 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.

- **Taq DNA Polymerase**
  - 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.

**Special protective equipment for fire-fighters**
- **PCR Mix Plex 1**
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- **PCR Mix Plex 2**
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- **Taq 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.

### Section 6. Accidental release measures

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

**For non-emergency personnel**
- **PCR Mix Plex 1**
  - 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.

- **PCR Mix Plex 2**
  - 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.

- **Taq 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.

**For emergency responders**
- **PCR Mix Plex 1**
  - 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".

- **PCR Mix Plex 2**
  - 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".

- **Taq 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".
Section 6. Accidental release measures

**Environmental precautions**

- **PCR Mix Plex 1**: 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).
- **PCR Mix Plex 2**: 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).
- **Taq 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).

**Methods and material for containment and cleaning up**

**Methods for cleaning up**

- **PCR Mix Plex 1**: 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.
- **PCR Mix Plex 2**: 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.
- **Taq 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.

Section 7. Handling and storage

**Precautions for safe handling**

**Protective measures**

- **PCR Mix Plex 1**: Put on appropriate personal protective equipment (see Section 8).
- **PCR Mix Plex 2**: Put on appropriate personal protective equipment (see Section 8).
- **Taq DNA Polymerase**: Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene**

- **PCR Mix Plex 1**: 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.
- **PCR Mix Plex 2**: 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.
- **Taq DNA Polymerase**: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face...
Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities:

- **PCR Mix Plex 1**
  - 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.

- **PCR Mix Plex 2**
  - 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.

- **Taq DNA Polymerase**
  - 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.

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>Taq 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**
Section 8. Exposure controls and personal protection

Hand protection

- Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. If necessary, use a respirator that is approved by a specialist for handling this product. Ensure that respirators are used with the appropriate filters, and that proper training is conducted before use. Respirators must be used in accordance with a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

- 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. Gloves should be changed if they become contaminated or damaged.

- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to protect the eyes. Safety glasses with side-shields should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

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.

Eye/face protection

- Safety eye wear 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

- 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 9. Physical and chemical properties

Appearance

Physical state

- PCR Mix Plex 1: Liquid.
- PCR Mix Plex 2: Liquid.
- Taq DNA Polymerase: Liquid. [Clear. / solution]

Colour

- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- Taq DNA Polymerase: Colourless.

Odour

- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- Taq DNA Polymerase: Not available.

Odour threshold

- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- Taq DNA Polymerase: Not available.

pH

- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- Taq DNA Polymerase: Not available.

Melting point

- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- Taq DNA Polymerase: Not available.

Boiling point

- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- Taq DNA Polymerase: Not available.

Flash point

- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- Taq DNA Polymerase: Not available.

Evaporation rate

- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- Taq DNA Polymerase: Not available.

Flammability (solid, gas)

- PCR Mix Plex 1: Not applicable.
- PCR Mix Plex 2: Not applicable.
- Taq DNA Polymerase: Not applicable.
Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
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</tr>
<tr>
<td>Vapour pressure</td>
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<tr>
<td>Vapour density</td>
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</tr>
<tr>
<td>Relative density</td>
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<tr>
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<tr>
<td>Viscosity</td>
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<td>Not available.</td>
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</table>

Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</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>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</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>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>May react or be incompatible with oxidising materials.</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

**Hazardous decomposition products**

<table>
<thead>
<tr>
<th>Product</th>
<th>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR Mix Plex 1</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td></td>
</tr>
<tr>
<td>Taq DNA Polymerase</td>
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</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>Taq DNA Polymerase</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</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>Taq DNA Polymerase</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></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**

<table>
<thead>
<tr>
<th>Product</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR Mix Plex 1</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td></td>
</tr>
<tr>
<td>Taq DNA Polymerase</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
</tbody>
</table>

**Potential acute health effects**

**Eye contact**

<table>
<thead>
<tr>
<th>Product</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR Mix Plex 1</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td></td>
</tr>
<tr>
<td>Taq DNA Polymerase</td>
<td></td>
</tr>
</tbody>
</table>

**Inhalation**

<table>
<thead>
<tr>
<th>Product</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR Mix Plex 1</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td></td>
</tr>
<tr>
<td>Taq DNA Polymerase</td>
<td></td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

Skin contact:
- PCR Mix Plex 1: No known significant effects or critical hazards.
- PCR Mix Plex 2: No known significant effects or critical hazards.
- Taq DNA Polymerase: No known significant effects or critical hazards.

Ingestion:
- PCR Mix Plex 1: No known significant effects or critical hazards.
- PCR Mix Plex 2: No known significant effects or critical hazards.
- Taq DNA Polymerase: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact:
- PCR Mix Plex 1: No specific data.
- PCR Mix Plex 2: No specific data.
- Taq DNA Polymerase: No specific data.

Inhalation:
- PCR Mix Plex 1: No specific data.
- PCR Mix Plex 2: No specific data.
- Taq DNA Polymerase: No specific data.

Skin contact:
- PCR Mix Plex 1: No specific data.
- PCR Mix Plex 2: No specific data.
- Taq DNA Polymerase: No specific data.

Ingestion:
- PCR Mix Plex 1: No specific data.
- PCR Mix Plex 2: No specific data.
- Taq DNA Polymerase: 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
Not available.

General:
- PCR Mix Plex 1: No known significant effects or critical hazards.
- PCR Mix Plex 2: No known significant effects or critical hazards.
- Taq DNA Polymerase: No known significant effects or critical hazards.

Carcinogenicity:
- PCR Mix Plex 1: No known significant effects or critical hazards.
- PCR Mix Plex 2: No known significant effects or critical hazards.
- Taq DNA Polymerase: No known significant effects or critical hazards.

Mutagenicity:
- PCR Mix Plex 1: No known significant effects or critical hazards.
- PCR Mix Plex 2: No known significant effects or critical hazards.
- Taq DNA Polymerase: No known significant effects or critical hazards.

Teratogenicity:
- PCR Mix Plex 1: No known significant effects or critical hazards.
- PCR Mix Plex 2: No known significant effects or critical hazards.
- Taq DNA Polymerase: No known significant effects or critical hazards.

Developmental effects:
- PCR Mix Plex 1: No known significant effects or critical hazards.
- PCR Mix Plex 2: No known significant effects or critical hazards.
- Taq DNA Polymerase: No known significant effects or critical hazards.

Fertility effects:
- PCR Mix Plex 1: No known significant effects or critical hazards.
- PCR Mix Plex 2: No known significant effects or critical hazards.
- Taq DNA Polymerase: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates
Not available.
Section 11. Toxicological information

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>Taq DNA Polymerase Glycerol</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</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>Taq DNA Polymerase Glycerol</td>
<td>-1.76</td>
<td>-</td>
<td>low</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 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 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

Date of issue/Date of revision : 30/08/2017  Date of previous issue : 07/07/2017.  Version : 1.1 12/14
Section 15. Regulatory information

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

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
Australia : Not determined.
Canada : Not determined.
China : Not determined.
Europe : Not determined.
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 : Not determined.
Thailand : Not determined.
Turkey : Not determined.
United States : Not determined.
Viet Nam : Not determined.

Section 16. Any other relevant information

History
Date of issue/Date of revision : 30/08/2017
Date of previous issue : 07/07/2017.
Version : 1.1

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>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not classified.</td>
<td></td>
</tr>
</tbody>
</table>

References : Not available.
Section 16. Any other relevant information

*Notice to reader*

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