SAFETY DATA SHEET
DMD MASTR

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

1.1 Product identifier
Product name: DMD MASTR
Part no. (chemical kit): MR-0120.008
Part no.: AR 1 I-0792
PCR Mix Plex 1 I-0819
PCR Mix Plex 2 I-0820
PCR Mix Plex 3 I-0821
PCR Mix Plex 4 I-0822
Taq DNA Polymerase I-0579

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses: Analytical reagent.
For Research Use Only. Not for use in diagnostic procedures.

AR 1 1 ml
PCR Mix Plex 1 0.08 ml
PCR Mix Plex 2 0.08 ml
PCR Mix Plex 3 0.08 ml
PCR Mix Plex 4 0.08 ml
Taq DNA Polymerase 0.006 ml

1.3 Details of the supplier of the safety data sheet
Agilent Technologies Belgium
De Kleetlaan 5 bus 9
1831 Diegem
Belgium
Tel.: +32(0)2 404 90 00
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: AR 1 Mixture
PCR Mix Plex 1 Mixture
PCR Mix Plex 2 Mixture
PCR Mix Plex 3 Mixture
PCR Mix Plex 4 Mixture
Taq DNA Polymerase Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Taq DNA Polymerase
H412 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
SECTION 2: Hazards identification

Ingredients of unknown toxicity:
- PCR Mix Plex 1
  - Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
  - Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
  - Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%
- PCR Mix Plex 2
  - Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
  - Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
  - Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%
- PCR Mix Plex 3
  - Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
  - Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
  - Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%
- PCR Mix Plex 4
  - Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
  - Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
  - Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%
- Taq DNA Polymerase
  - Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%

Ingredients of unknown ecotoxicity:
- PCR Mix Plex 1
  - Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.1%
- PCR Mix Plex 2
  - Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.1%
- PCR Mix Plex 3
  - Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.1%
- PCR Mix Plex 4
  - Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.1%

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:
- AR 1
  - No known significant effects or critical hazards.
- PCR Mix Plex 1
  - No signal word.
- PCR Mix Plex 2
  - No signal word.
- PCR Mix Plex 3
  - No signal word.
- PCR Mix Plex 4
  - No signal word.
- Taq DNA Polymerase
  - No signal word.

Hazard statements:
- AR 1
  - No known significant effects or critical hazards.
- PCR Mix Plex 1
  - No known significant effects or critical hazards.
- PCR Mix Plex 2
  - No known significant effects or critical hazards.
- PCR Mix Plex 3
  - No known significant effects or critical hazards.
- PCR Mix Plex 4
  - No known significant effects or critical hazards.
- Taq DNA Polymerase
  - H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention:
- AR 1
  - Not applicable.
- PCR Mix Plex 1
  - Not applicable.
- PCR Mix Plex 2
  - Not applicable.
- PCR Mix Plex 3
  - Not applicable.
- PCR Mix Plex 4
  - Not applicable.
- Taq DNA Polymerase
  - P273 - Avoid release to the environment.

**SECTION 2: Hazards identification**

<table>
<thead>
<tr>
<th>Response</th>
<th>Taq DNA Polymerase</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1</td>
<td>PCR Mix Plex 1</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 3</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 4</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Storage</th>
<th>Taq DNA Polymerase</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>PCR Mix Plex 1</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 3</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 4</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disposal</th>
<th>Taq DNA Polymerase</th>
<th>P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1</td>
<td>PCR Mix Plex 1</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 3</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 4</td>
<td>Not applicable.</td>
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<table>
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<tr>
<th>Hazardous ingredients</th>
<th>Taq DNA Polymerase</th>
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<td>AR 1</td>
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<td></td>
<td>PCR Mix Plex 1</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 3</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 4</td>
<td>Not applicable.</td>
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</table>

<table>
<thead>
<tr>
<th>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</th>
<th>Taq DNA Polymerase</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</td>
<td>AR 1</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>PCR Mix Plex 1</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>Not applicable.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special packaging requirements</th>
<th>Taq DNA Polymerase</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tactile warning of danger</td>
<td>AR 1</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>PCR Mix Plex 1</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>Not applicable.</td>
<td></td>
</tr>
</tbody>
</table>

### 2.3 Other hazards

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

<table>
<thead>
<tr>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>This mixture does not contain any substances that are assessed to be a PBT or a vPvB.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>This mixture does not contain any substances that are assessed to be a PBT or a vPvB.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 3</td>
<td>This mixture does not contain any substances that are assessed to be a PBT or a vPvB.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 4</td>
<td>This mixture does not contain any substances that are assessed to be a PBT or a vPvB.</td>
</tr>
<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>This mixture does not contain any substances that are assessed to be a PBT or a vPvB.</td>
</tr>
</tbody>
</table>

**Other hazards which do not result in classification**

<table>
<thead>
<tr>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>None known.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCR Mix Plex 2</td>
<td>None known.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 3</td>
<td>None known.</td>
</tr>
<tr>
<td></td>
<td>PCR Mix Plex 4</td>
<td>None known.</td>
</tr>
<tr>
<td></td>
<td>Taq DNA Polymerase</td>
<td>None known.</td>
</tr>
</tbody>
</table>
**SECTION 3: Composition/information on ingredients**

### 3.1 Substances

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td></td>
<td>&lt;1</td>
<td>Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)</td>
<td>[1][5]</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl].omega.-hydroxy-</td>
<td></td>
<td></td>
<td>See Section 16 for the full text of the H statements declared above.</td>
<td></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.

**Type**

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

**Eye contact**

- **AR 1** Taq 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.
  - PCR Mix Plex 1
  - PCR Mix Plex 2
  - PCR Mix Plex 3
  - PCR Mix Plex 4
  - Taq DNA Polymerase

**Inhalation**

- **AR 1** PCR Mix Plex 1
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Date of issue/Date of revision**: 21/06/2019  
**Date of previous issue**: 18/01/2018  
**Version**: 3
SECTION 4: First aid measures

**Skin contact**: AR 1

- **PCR Mix Plex 2**: 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.

- **PCR Mix Plex 3**: 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.

- **PCR Mix Plex 4**: 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.

- **Taq DNA Polymerase**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Ingestion**: AR 1

- **PCR Mix Plex 1**: Wash out mouth with water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

- **PCR Mix Plex 2**: Wash out mouth with water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

- **PCR Mix Plex 3**: Wash out mouth with water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

- **PCR Mix Plex 4**: Wash out mouth with water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

- **Taq DNA Polymerase**: Wash out mouth with water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Remove clothing before reuse. Clean shoes thoroughly before reuse.
SECTION 4: First aid measures

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.

PCR Mix Plex 3
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.

PCR Mix Plex 4
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.

Taq DNA Polymerase
Wash out mouth with water. Remove dentures if any. 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. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders: AR 1
No action shall be taken involving any personal risk or without suitable training.

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.

PCR Mix Plex 3
No action shall be taken involving any personal risk or without suitable training.

PCR Mix Plex 4
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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: AR 1
No known significant effects or critical hazards.

PCR Mix Plex 1
No known significant effects or critical hazards.

PCR Mix Plex 2
No known significant effects or critical hazards.

PCR Mix Plex 3
No known significant effects or critical hazards.

PCR Mix Plex 4
No known significant effects or critical hazards.

Taq DNA Polymerase
No known significant effects or critical hazards.

Inhalation: AR 1
No known significant effects or critical hazards.

PCR Mix Plex 1
No known significant effects or critical hazards.

PCR Mix Plex 2
No known significant effects or critical hazards.

PCR Mix Plex 3
No known significant effects or critical hazards.

PCR Mix Plex 4
No known significant effects or critical hazards.

Taq DNA Polymerase
No known significant effects or critical hazards.
**SECTION 4: First aid measures**

### Skin contact

- AR 1
- Taq DNA Polymerase

<table>
<thead>
<tr>
<th>Product</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>PCR Mix Plex 1</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

### Ingestion

- AR 1
- Taq DNA Polymerase

<table>
<thead>
<tr>
<th>Product</th>
<th>Effect</th>
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<tr>
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<tr>
<td>PCR Mix Plex 1</td>
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</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

### Over-exposure signs/symptoms

#### Eye contact

- AR 1
- Taq DNA Polymerase

<table>
<thead>
<tr>
<th>Product</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1</td>
<td>No specific data.</td>
</tr>
<tr>
<td>PCR Mix Plex 1</td>
<td>No specific data.</td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
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</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>No specific data.</td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

#### Inhalation

- AR 1
- Taq DNA Polymerase

<table>
<thead>
<tr>
<th>Product</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1</td>
<td>No specific data.</td>
</tr>
<tr>
<td>PCR Mix Plex 1</td>
<td>No specific data.</td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>No specific data.</td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>No specific data.</td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
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#### Skin contact

- AR 1
- Taq DNA Polymerase

<table>
<thead>
<tr>
<th>Product</th>
<th>Effect</th>
</tr>
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<tbody>
<tr>
<td>AR 1</td>
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<tr>
<td>PCR Mix Plex 1</td>
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<td>PCR Mix Plex 2</td>
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<td>PCR Mix Plex 3</td>
<td>No specific data.</td>
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<tr>
<td>PCR Mix Plex 4</td>
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#### Ingestion

- AR 1
- Taq DNA Polymerase

<table>
<thead>
<tr>
<th>Product</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1</td>
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<tr>
<td>PCR Mix Plex 1</td>
<td>No specific data.</td>
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<td>PCR Mix Plex 2</td>
<td>No specific data.</td>
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<tr>
<td>PCR Mix Plex 3</td>
<td>No specific data.</td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

### 4.3 Indication of any immediate medical attention and special treatment needed

- **Notes to physician**: AR 1

<table>
<thead>
<tr>
<th>Product</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td>PCR Mix Plex 1</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>
<tr>
<td>PCR Mix Plex 2</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>
<tr>
<td>PCR Mix Plex 3</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>
<tr>
<td>PCR Mix Plex 4</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>
<tr>
<td>Taq DNA Polymerase</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision**: 21/06/2019  **Date of previous issue**: 18/01/2018  **Version**: 3
SECTION 4: First aid measures

<table>
<thead>
<tr>
<th>Specific treatments</th>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>PCR Mix Plex 3</th>
<th>PCR Mix Plex 4</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
</table>

SECTION 5: Firefighting measures

5.1 Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>PCR Mix Plex 3</th>
<th>PCR Mix Plex 4</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1</td>
<td>None known.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 1</td>
<td>None known.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>None known.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>None known.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>None known.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td></td>
</tr>
<tr>
<td>Taq DNA Polymerase</td>
<td>None known.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td></td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th>Hazards from the substance or mixture</th>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>PCR Mix Plex 3</th>
<th>PCR Mix Plex 4</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
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<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>PCR Mix Plex 1</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
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<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
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<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>Taq DNA Polymerase</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
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<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th>Harmful combustion products</th>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>PCR Mix Plex 3</th>
<th>PCR Mix Plex 4</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1</td>
<td>No specific data.</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
</tr>
<tr>
<td>PCR Mix Plex 1</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
</tr>
<tr>
<td>Taq DNA Polymerase</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
</tr>
</tbody>
</table>
SECTION 5: Firefighting measures

carbon monoxide

5.3 Advice for firefighters

Special precautions for fire-fighters:

AR 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 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.

PCR Mix Plex 3

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 4

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:

AR 1

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.

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. 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.

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. 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.

PCR Mix Plex 3

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.

PCR Mix Plex 4

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.

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. 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:
- **AR 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 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.

**PCR Mix Plex 3**: 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 4**: 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:
- **AR 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 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".

**PCR Mix Plex 3**: 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 4**: 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

6.2 Environmental precautions

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 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).

PCR Mix Plex 3
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 4
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). 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

AR 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 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.

PCR Mix Plex 3
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 4
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 6: Accidental release measures

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**
- AR 1: Put on appropriate personal protective equipment (see Section 8).
- 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).
- PCR Mix Plex 3: Put on appropriate personal protective equipment (see Section 8).
- PCR Mix Plex 4: Put on appropriate personal protective equipment (see Section 8).
- Taq DNA Polymerase: 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.

**Advice on general occupational hygiene**
- AR 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 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.
- PCR Mix Plex 3: 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 4: 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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

Storage : AR 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 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.

PCR Mix Plex 3

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 4

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 7: Handling and storage

7.3 Specific end use(s)

Recommendations:
- AR 1: Industrial applications, Professional applications.
- PCR Mix Plex 1: Industrial applications, Professional applications.
- PCR Mix Plex 2: Industrial applications, Professional applications.
- PCR Mix Plex 3: Industrial applications, Professional applications.
- PCR Mix Plex 4: Industrial applications, Professional applications.
- Taq DNA Polymerase: Industrial applications, Professional applications.

Industrial sector specific solutions:
- AR 1: Not applicable.
- PCR Mix Plex 1: Not applicable.
- PCR Mix Plex 2: Not applicable.
- PCR Mix Plex 3: Not applicable.
- PCR Mix Plex 4: Not applicable.
- Taq DNA Polymerase: Not applicable.

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>Taq DNA Polymerase</td>
<td>EH40/2005 WELs (United Kingdom (UK), 8/2018).</td>
</tr>
<tr>
<td>Glycerol</td>
<td>TWA: 10 mg/m³ 8 hours. Form: Mist</td>
</tr>
</tbody>
</table>

Recommended monitoring procedures:
If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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
No DNELs/DMELs available.

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.

Skin protection
SECTION 8: Exposure controls/personal 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.

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

9.1 Information on basic physical and chemical properties

Physical state:
- PCR Mix Plex 1: Liquid
- PCR Mix Plex 2: Liquid
- PCR Mix Plex 3: Liquid
- PCR Mix Plex 4: Liquid
- AR 1: Liquid
- Taq DNA Polymerase: Liquid [Clear / solution]

Colour:
- PCR Mix Plex 1: Not available
- PCR Mix Plex 2: Not available
- PCR Mix Plex 3: Not available
- PCR Mix Plex 4: Not available
- AR 1: Not available
- Taq DNA Polymerase: Colourless

Odour:
- PCR Mix Plex 1: Not available
- PCR Mix Plex 2: Not available
- PCR Mix Plex 3: Not available
- PCR Mix Plex 4: Not available
- AR 1: Not available
- Taq DNA Polymerase: Not available

Odour threshold:
- AR 1: Not available
- PCR Mix Plex 1: Not available
- PCR Mix Plex 2: Not available
- PCR Mix Plex 3: Not available
- PCR Mix Plex 4: Not available
- Taq DNA Polymerase: Not available

pH:
- PCR Mix Plex 1: Not available
- PCR Mix Plex 2: Not available
- PCR Mix Plex 3: Not available
- PCR Mix Plex 4: Not available
- AR 1: Not available
- Taq DNA Polymerase: Not available

Melting point/freezing point:
- AR 1: 0°C
- PCR Mix Plex 1: Not available
- PCR Mix Plex 2: Not available
- PCR Mix Plex 3: Not available
- PCR Mix Plex 4: Not available
- Taq DNA Polymerase: Not available
### SECTIONS 9: Physical and chemical properties

**Initial boiling point and boiling range**
- **AR 1**: 100°C
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Flash point**
- **AR 1**: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Evaporation rate**
- **AR 1**: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Flammability (solid, gas)**
- **AR 1**: Not applicable.
- PCR Mix Plex 1: Not applicable.
- PCR Mix Plex 2: Not applicable.
- PCR Mix Plex 3: Not applicable.
- PCR Mix Plex 4: Not applicable.
- Taq DNA Polymerase: Not applicable.

**Upper/lower flammability or explosive limits**
- **AR 1**: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Vapour pressure**
- **AR 1**: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Vapour density**
- **AR 1**: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Relative density**
- **AR 1**: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Solubility(ies)**
- **AR 1**: Easily soluble in the following materials: cold water and hot water.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.
## SECTION 9: Physical and chemical properties

**Partition coefficient: n-octanol/water**
- AR 1: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Auto-ignition temperature**
- AR 1: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Decomposition temperature**
- AR 1: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Viscosity**
- AR 1: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Explosive properties**
- AR 1: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

**Oxidising properties**
- AR 1: Not available.
- PCR Mix Plex 1: Not available.
- PCR Mix Plex 2: Not available.
- PCR Mix Plex 3: Not available.
- PCR Mix Plex 4: Not available.
- Taq DNA Polymerase: Not available.

### 9.2 Other information
No additional information.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity
- AR 1: No specific test data related to reactivity available for this product or its ingredients.
- PCR Mix Plex 1: No specific test data related to reactivity available for this product or its ingredients.
- PCR Mix Plex 2: No specific test data related to reactivity available for this product or its ingredients.
- PCR Mix Plex 3: No specific test data related to reactivity available for this product or its ingredients.
- PCR Mix Plex 4: No specific test data related to reactivity available for this product or its ingredients.
- Taq DNA Polymerase: No specific test data related to reactivity available for this product or its ingredients.

SECTION 10: Stability and reactivity

10.2 Chemical stability

<table>
<thead>
<tr>
<th>Product/Ingredient name</th>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>PCR Mix Plex 3</th>
<th>PCR Mix Plex 4</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
<td>The product is stable.</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>Product/Ingredient name</th>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>PCR Mix Plex 3</th>
<th>PCR Mix Plex 4</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result</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>
<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>
</tbody>
</table>

10.4 Conditions to avoid

<table>
<thead>
<tr>
<th>Product/Ingredient name</th>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>PCR Mix Plex 3</th>
<th>PCR Mix Plex 4</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Product/Ingredient name</th>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>PCR Mix Plex 3</th>
<th>PCR Mix Plex 4</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result</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>
<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>

10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Product/Ingredient name</th>
<th>AR 1</th>
<th>PCR Mix Plex 1</th>
<th>PCR Mix Plex 2</th>
<th>PCR Mix Plex 3</th>
<th>PCR Mix Plex 4</th>
<th>Taq DNA Polymerase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>

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>Taq DNA Polymerase Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2800 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Acute toxicity estimates
SECTION 11: Toxicological information

<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>Taq DNA Polymerase</td>
<td>2800</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</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 - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>1 Percent</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.

Information on likely routes of exposure

<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>AR 1</td>
<td>Not available.</td>
<td>PCR Mix Plex 1</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>Not available.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>Not available.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>Not available.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
</tbody>
</table>

Potential acute health effects

Inhalation

<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>AR 1</td>
<td>No known significant effects or critical hazards.</td>
<td>PCR Mix Plex 1</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
</tbody>
</table>

Ingestion

<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>AR 1</td>
<td>No known significant effects or critical hazards.</td>
<td>PCR Mix Plex 1</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
</tbody>
</table>

Skin contact

<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>AR 1</td>
<td>No known significant effects or critical hazards.</td>
<td>PCR Mix Plex 1</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
</tbody>
</table>

Eye contact

<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>AR 1</td>
<td>No known significant effects or critical hazards.</td>
<td>PCR Mix Plex 1</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 2</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 3</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
<tr>
<td>PCR Mix Plex 4</td>
<td>No known significant effects or critical hazards.</td>
<td>Taq DNA Polymerase</td>
<td>Not available.</td>
<td>Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 11: Toxicological information

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

| Inhalation | AR 1 | No specific data. |
| PCR Mix Plex 1 | No specific data. |
| PCR Mix Plex 2 | No specific data. |
| PCR Mix Plex 3 | No specific data. |
| PCR Mix Plex 4 | No specific data. |
| Taq DNA Polymerase | No specific data. |

| Ingestion | AR 1 | No specific data. |
| PCR Mix Plex 1 | No specific data. |
| PCR Mix Plex 2 | No specific data. |
| PCR Mix Plex 3 | No specific data. |
| PCR Mix Plex 4 | No specific data. |
| Taq DNA Polymerase | No specific data. |

| Skin contact | AR 1 | No specific data. |
| PCR Mix Plex 1 | No specific data. |
| PCR Mix Plex 2 | No specific data. |
| PCR Mix Plex 3 | No specific data. |
| PCR Mix Plex 4 | No specific data. |
| Taq DNA Polymerase | No specific data. |

| Eye contact | AR 1 | No specific data. |
| PCR Mix Plex 1 | No specific data. |
| PCR Mix Plex 2 | No specific data. |
| PCR Mix Plex 3 | No specific data. |
| PCR Mix Plex 4 | 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

**General**

| AR 1 | No known significant effects or critical hazards. |
| PCR Mix Plex 1 | No known significant effects or critical hazards. |
| PCR Mix Plex 2 | No known significant effects or critical hazards. |
| PCR Mix Plex 3 | No known significant effects or critical hazards. |
| PCR Mix Plex 4 | No known significant effects or critical hazards. |
| Taq DNA Polymerase | No known significant effects or critical hazards. |

**Carcinogenicity**

| AR 1 | No known significant effects or critical hazards. |
| PCR Mix Plex 1 | No known significant effects or critical hazards. |
| PCR Mix Plex 2 | No known significant effects or critical hazards. |
| PCR Mix Plex 3 | No known significant effects or critical hazards. |
| PCR Mix Plex 4 | No known significant effects or critical hazards. |
| Taq DNA Polymerase | No known significant effects or critical hazards. |

**Mutagenicity**

| AR 1 | No known significant effects or critical hazards. |
| PCR Mix Plex 1 | No known significant effects or critical hazards. |
| PCR Mix Plex 2 | No known significant effects or critical hazards. |
| PCR Mix Plex 3 | No known significant effects or critical hazards. |
| PCR Mix Plex 4 | No known significant effects or critical hazards. |
| Taq DNA Polymerase | No known significant effects or critical hazards. |
SECTION 11: Toxicological information

Teratogenicity : AR 1
No known significant effects or critical hazards.

PCR Mix Plex 1
No known significant effects or critical hazards.

PCR Mix Plex 2
No known significant effects or critical hazards.

PCR Mix Plex 3
No known significant effects or critical hazards.

PCR Mix Plex 4
No known significant effects or critical hazards.

Taq DNA Polymerase
No known significant effects or critical hazards.

Developmental effects : AR 1
No known significant effects or critical hazards.

PCR Mix Plex 1
No known significant effects or critical hazards.

PCR Mix Plex 2
No known significant effects or critical hazards.

PCR Mix Plex 3
No known significant effects or critical hazards.

PCR Mix Plex 4
No known significant effects or critical hazards.

Taq DNA Polymerase
No known significant effects or critical hazards.

Fertility effects : AR 1
No known significant effects or critical hazards.

PCR Mix Plex 1
No known significant effects or critical hazards.

PCR Mix Plex 2
No known significant effects or critical hazards.

PCR Mix Plex 3
No known significant effects or critical hazards.

PCR Mix Plex 4
No known significant effects or critical hazards.

Taq DNA Polymerase
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>Taq DNA Polymerase</td>
<td>Acute EC50 210 μg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>96 hours</td>
</tr>
<tr>
<td></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>
</tbody>
</table>

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taq DNA Polymerase</td>
<td>3.77</td>
<td>78.67</td>
<td>low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects : No known significant effects or critical hazards.
**SECTION 13: Disposal considerations**

13.1 Waste treatment methods

**Product**

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Packaging**

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

Special precautions: This material and its container must be disposed of in a safe way. 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</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>14.2 UN proper shipping name</th>
<th>-</th>
<th>-</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**14.5 Environmental hazards**

<table>
<thead>
<tr>
<th>14.5 Environmental hazards</th>
<th>No.</th>
<th>No.</th>
<th>No.</th>
</tr>
</thead>
</table>

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 Annex II of Marpol and the IBC Code: 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**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

SECTION 15: Regulatory information

<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>Taq DNA Polymerase</td>
<td>Poly(oxy-1,2-ethanediyl).alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-omega.-hydroxy-</td>
<td>Substance of equivalent concern for human health</td>
<td>Recommended</td>
<td>ED/169/2012</td>
</tr>
</tbody>
</table>

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

- PCR Mix Plex 1: Not applicable.
- PCR Mix Plex 2: Not applicable.
- PCR Mix Plex 3: Not applicable.
- PCR Mix Plex 4: Not applicable.
- Taq DNA Polymerase: Not applicable.

Other EU regulations

- **Ozone depleting substances (1005/2009/EU)**
  - Not listed.
- **Prior Informed Consent (PIC) (649/2012/EU)**
  - 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 (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.
- **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.

Date of issue/Date of revision: 21/06/2019
Date of previous issue: 18/01/2018
Version: 3
SECTION 15: Regulatory information

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

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

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taq DNA Polymerase</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 3, H412</td>
<td></td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements

<table>
<thead>
<tr>
<th>Taq DNA Polymerase</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

Full text of classifications [CLP/GHS]

<table>
<thead>
<tr>
<th>Taq DNA Polymerase</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Acute 1, H400</td>
<td>SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 1, H410</td>
<td>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 3, H412</td>
<td>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3</td>
</tr>
<tr>
<td>Eye Irrit. 2, H319</td>
<td>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2</td>
</tr>
</tbody>
</table>

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Date of previous issue: 18/01/2018
Version: 3

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