SAFETY DATA SHEET
Brilliant II QPCR Master Mix, Part Number 600804

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

1.1 Product identifier
Product name : Brilliant II QPCR Master Mix, Part Number 600804
Part no. (chemical kit) : 600804
Part no. : 2X Brilliant II QPCR 600804-51
Master Mix
Reference Dye 600530-53

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses : Analytical reagent.
2X Brilliant II QPCR Master Mix 2 x 2.5 ml
Reference Dye 0.1 ml (100 µl 1 mM)

1.3 Details of the supplier of the safety data sheet
Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000
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 : 2X Brilliant II QPCR Mixture
Master Mix Mixture
Reference Dye

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Not classified.

Ingredients of unknown toxicity : 2X Brilliant II QPCR Master Mix Reference Dye
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
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%

Ingredients of unknown ecotoxicity : Reference Dye
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.4%

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.

Date of issue/Date of revision : 16/04/2019 1/15
SECTION 2: Hazards identification

Signal word: 2X Brilliant II QPCR Master Mix, Reference Dye
No signal word.

Hazard statements:
- 2X Brilliant II QPCR Master Mix
  No known significant effects or critical hazards.
- Reference Dye
  No known significant effects or critical hazards.

Precautionary statements:

Prevention:
- 2X Brilliant II QPCR Master Mix
  Not applicable.
- Reference Dye
  Not applicable.

Response:
- 2X Brilliant II QPCR Master Mix
  Not applicable.
- Reference Dye
  Not applicable.

Storage:
- 2X Brilliant II QPCR Master Mix
  Not applicable.
- Reference Dye
  Not applicable.

Disposal:
- 2X Brilliant II QPCR Master Mix
  Not applicable.
- Reference Dye
  Not applicable.

Hazardous ingredients:
- Reference Dye
  Not applicable.

Supplemental label elements:
- Reference Dye
  Safety data sheet available on request.

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

- 2X Brilliant II QPCR Master Mix
  Not applicable.
- Reference Dye
  Not applicable.

Special packaging requirements:

Tactile warning of danger:
- 2X Brilliant II QPCR Master Mix
  Not applicable.
- Reference Dye
  Not applicable.

2.3 Other hazards

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

- 2X Brilliant II QPCR Master Mix
  This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
- Reference Dye
  This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification:
- 2X Brilliant II QPCR Master Mix
  None known.
- Reference Dye
  None known.

SECTION 3: Composition/information on ingredients

3.1 Substances:
- 2X Brilliant II QPCR Master Mix
- Reference Dye
  Mixture
  Mixture

Date of issue/Date of revision: 16/04/2019
## SECTION 3: Composition/information on ingredients

<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>
</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
3. Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
4. Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
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

<table>
<thead>
<tr>
<th>2X Brilliant II QPCR Master Mix</th>
<th>2X Brilliant II QPCR Master Mix Reference Dye</th>
<th>2X Brilliant II QPCR Master Mix Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QPCR Master Mix</td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Inhalation

<table>
<thead>
<tr>
<th>2X Brilliant II QPCR Master Mix</th>
<th>2X Brilliant II QPCR Master Mix Reference Dye</th>
<th>2X Brilliant II QPCR Master Mix Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QPCR Master Mix</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Skin contact

<table>
<thead>
<tr>
<th>2X Brilliant II QPCR Master Mix</th>
<th>2X Brilliant II QPCR Master Mix Reference Dye</th>
<th>2X Brilliant II QPCR Master Mix Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QPCR Master Mix</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Ingestion

<table>
<thead>
<tr>
<th>2X Brilliant II QPCR Master Mix</th>
<th>2X Brilliant II QPCR Master Mix Reference Dye</th>
<th>2X Brilliant II QPCR Master Mix Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QPCR Master Mix</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>
<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>Reference Dye</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

Protection of first-aiders:

- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

No action shall be taken involving any personal risk or without suitable training.

Induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

**Potential acute health effects**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Substance</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Over-exposure signs/symptoms**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Substance</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician**

- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**

- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Substance</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X Brilliant II QPCR Master Mix</strong></td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td></td>
</tr>
<tr>
<td><strong>Reference Dye</strong></td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unsuitable extinguishing media</th>
<th>Substance</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X Brilliant II QPCR Master Mix</strong></td>
<td>None known.</td>
<td></td>
</tr>
<tr>
<td><strong>Reference Dye</strong></td>
<td>None known.</td>
<td></td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

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**SECTION 5: Firefighting measures**

<table>
<thead>
<tr>
<th>Hazards from the substance or mixture</th>
<th>2X Brilliant II QPCR Master Mix</th>
<th>In a fire or if heated, a pressure increase will occur and the container may burst.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>

**Hazardous combustion products**

| 2X Brilliant II QPCR Master Mix | Decomposition products may include the following materials: |
| Reference Dye                   | carbon dioxide                 |
|                                 | carbon monoxide                |
|                                 | Decomposition products may include the following materials: |
|                                 | carbon dioxide                 |
|                                 | carbon monoxide                |
|                                 | nitrogen oxides                |
|                                 | halogenated compounds          |
|                                 | metal oxide/oxides             |

**5.3 Advice for firefighters**

**Special precautions for fire-fighters**

| 2X Brilliant II QPCR Master Mix | 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. |
| Reference Dye                   | 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**

| 2X Brilliant II QPCR Master Mix | 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. |
| Reference Dye                   | 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**

| 2X Brilliant II QPCR Master Mix | 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. |
| Reference Dye                   | 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**

| 2X Brilliant II QPCR Master Mix | 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". |
| Reference Dye                   | 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". |
Brilliant II QPCR Master Mix, Part Number 600804

SECTION 6: Accidental release measures

6.2 Environmental precautions

2X Brilliant II QPCR Master Mix
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).

Reference Dye
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).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up:

2X Brilliant II QPCR Master Mix
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.

Reference Dye
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.

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:

2X Brilliant II QPCR Master Mix
Put on appropriate personal protective equipment (see Section 8).

Reference Dye
Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene:

2X Brilliant II QPCR Master Mix
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.

Reference Dye
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

2X Brilliant II QPCR Master Mix
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.

Reference Dye
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

Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>2X Brilliant II QPCR Master Mix</th>
<th>Industrial applications, Professional applications.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>Industrial applications, Professional applications.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industrial sector specific solutions</th>
<th>2X Brilliant II QPCR Master Mix</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>2X Brilliant II QPCR Master Mix</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

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>2X Brilliant II QPCR Master Mix Glycerol</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). 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.

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SECTION 8: Exposure controls/personal protection

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Hand protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. It is recommended that respirators be selected according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Skin 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.

Eye/face protection

Respiratory protection

Eye/face protection

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Liquid.

Colour: 2X Brilliant II QPCR Master Mix Not available.

Odour: 2X Brilliant II QPCR Master Mix Not available.

Odour threshold: 2X Brilliant II QPCR Master Mix Not available.

pH: 2X Brilliant II QPCR Master Mix 8

Melting point/freezing point: Not available.

Initial boiling point and boiling range: Not available.

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid, gas): Not applicable.

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**Brilliant II QPCR Master Mix, Part Number 600804**

## SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>2X Brilliant II QPCR Master Mix</th>
<th>2X Brilliant II QPCR Master Mix</th>
<th>Reference Dye</th>
<th>Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available.</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

<table>
<thead>
<tr>
<th>Section 10</th>
<th>2X Brilliant II QPCR Master Mix</th>
<th>2X Brilliant II QPCR Master Mix</th>
<th>Reference Dye</th>
<th>Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1 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></td>
<td></td>
</tr>
<tr>
<td>10.2 Chemical stability</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.3 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></td>
<td></td>
</tr>
<tr>
<td>10.4 Conditions to avoid</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision**: 16/04/2019
SECTION 10: Stability and reactivity

10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QPCR Master Mix</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td></td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QPCR Master Mix</td>
<td>Not applicable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td>Not applicable.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Not available.

Acute toxicity estimates
N/A

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
<th>Not available.</th>
</tr>
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</table>

Sensitiser

<table>
<thead>
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<th>Conclusion/Summary</th>
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</thead>
</table>

Mutagenicity

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
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</tr>
</thead>
</table>

Carcinogenicity

<table>
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<th>Conclusion/Summary</th>
<th>Not available.</th>
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</thead>
</table>

Reproductive toxicity

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
<th>Not available.</th>
</tr>
</thead>
</table>

Teratogenicity

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
<th>Not available.</th>
</tr>
</thead>
</table>

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td></td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard
Not available.

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Route of exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QPCR Master Mix</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
</tbody>
</table>

Potential acute health effects

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

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**SECTION 11: Toxicological information**

### Skin contact
- **2X Brilliant II QPCR Master Mix**
  - No known significant effects or critical hazards.
- **Reference Dye**
  - No known significant effects or critical hazards.

### Eye contact
- **2X Brilliant II QPCR Master Mix**
  - No known significant effects or critical hazards.
- **Reference Dye**
  - No known significant effects or critical hazards.

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

#### Inhalation
- **2X Brilliant II QPCR Master Mix**
  - No specific data.
- **Reference Dye**
  - No specific data.

#### Ingestion
- **2X Brilliant II QPCR Master Mix**
  - No specific data.
- **Reference Dye**
  - No specific data.

#### Skin contact
- **2X Brilliant II QPCR Master Mix**
  - No specific data.
- **Reference Dye**
  - No specific data.

#### Eye contact
- **2X Brilliant II QPCR Master Mix**
  - No specific data.
- **Reference Dye**
  - 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
- **2X Brilliant II QPCR Master Mix**
  - No known significant effects or critical hazards.
- **Reference Dye**
  - No known significant effects or critical hazards.

#### Carcinogenicity
- **2X Brilliant II QPCR Master Mix**
  - No known significant effects or critical hazards.
- **Reference Dye**
  - No known significant effects or critical hazards.

#### Mutagenicity
- **2X Brilliant II QPCR Master Mix**
  - No known significant effects or critical hazards.
- **Reference Dye**
  - No known significant effects or critical hazards.

#### Teratogenicity
- **2X Brilliant II QPCR Master Mix**
  - No known significant effects or critical hazards.
- **Reference Dye**
  - No known significant effects or critical hazards.

#### Developmental effects
- **2X Brilliant II QPCR Master Mix**
  - No known significant effects or critical hazards.
- **Reference Dye**
  - No known significant effects or critical hazards.

#### Fertility effects
- **2X Brilliant II QPCR Master Mix**
  - No known significant effects or critical hazards.
- **Reference Dye**
  - No known significant effects or critical hazards.
SECTION 12: Ecological information

12.1 Toxicity
Conclusion/Summary: Not available.

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential
Not available.

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></th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</table>

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**Brilliant II QPCR Master Mix, Part Number 600804**

**SECTION 14: Transport information**

<table>
<thead>
<tr>
<th>14.4 Packing group</th>
<th>-</th>
<th>-</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.5 Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</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**
- None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**
- 2X Brilliant II QPCR Master Mix Reference Dye: 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.

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SECTION 15: Regulatory information

Inventory list
- **Australia**: Not determined.
- **Canada**: Not determined.
- **China**: All components are listed or exempted.
- **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.

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>Not classified.</td>
<td></td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements

Reference Dye
- **H315**: Causes skin irritation.
- **H319**: Causes serious eye irritation.
- **H335**: May cause respiratory irritation.

Full text of classifications [CLP/GHS]

Reference Dye
- **Eye Irrit. 2, H319**
- **Skin Irrit. 2, H315**
- **STOT SE 3, H335**

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
SKIN CORROSION/IRRITATION - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

Date of issue/Date of revision: 16/04/2019
Date of previous issue: 19/12/2017
Version: 2
Notice to reader

Date of issue/Date of revision: 16/04/2019
SECTION 16: Other information

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