SAFETY DATA SHEET
Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600882

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

1.1 Product identifier
Product name : Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600882
Part no. (chemical kit) : 600882
Part no. : Reference Dye 600530-53
2X Brilliant III SYBR® 600882-51
Green QPCR Master Mix

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

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
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 : Reference Dye Mixture
2X Brilliant III SYBR® Mixture
Green QPCR Master Mix

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

Ingredients of unknown toxicity:
Reference Dye
- 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%

2X Brilliant III SYBR® Green QPCR Master Mix
- 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: 10 - 30%

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.
SECTION 2: Hazards identification

2.2 Label elements

Signal word : Reference Dye | 2X Brilliant III SYBR® Green QPCR Master Mix
No signal word.

Hazard statements : Reference Dye | 2X Brilliant III SYBR® Green QPCR Master Mix
No known significant effects or critical hazards.

Precautionary statements

Prevention : Reference Dye | 2X Brilliant III SYBR® Green QPCR Master Mix
Not applicable.

Response : Reference Dye | 2X Brilliant III SYBR® Green QPCR Master Mix
Not applicable.

Storage : Reference Dye | 2X Brilliant III SYBR® Green QPCR Master Mix
Not applicable.

Disposal : Reference Dye | 2X Brilliant III SYBR® Green QPCR Master Mix
Not applicable.

Hazardous ingredients

Supplemental label elements

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

Special packaging requirements

Tactile warning of danger : Reference Dye | 2X Brilliant III SYBR® Green QPCR Master Mix
Not applicable.

2.3 Other hazards

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

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Mixture

Date of issue/Date of revision : 30/10/2019  Date of previous issue : 23/05/2018  Version : 3
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>
<tbody>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>CAS: 1185-53-1</td>
<td></td>
<td>Eye Irrit. 2, H319</td>
<td></td>
</tr>
<tr>
<td></td>
<td>REACH #: Annex V</td>
<td>≥10 - ≤25</td>
<td>STOT SE 3, H335</td>
<td></td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>EC: 200-289-5</td>
<td></td>
<td>Not classified.</td>
<td>[2]</td>
</tr>
<tr>
<td>Glycerol</td>
<td>CAS: 56-81-5</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**

: Reference Dye

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.

: 2X Brilliant III SYBR® Green QPCR Master Mix

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation**

: Reference Dye

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.

: 2X Brilliant III SYBR® Green QPCR Master Mix

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact**

: Reference Dye

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

: 2X Brilliant III SYBR® Green QPCR Master Mix

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**

: Reference Dye

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.

: 2X Brilliant III SYBR® Green QPCR Master Mix

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
SECTION 4: First aid measures

Protection of first-aiders:
- Reference Dye: No action shall be taken involving any personal risk or without suitable training.
- 2X Brilliant III SYBR® Green QPCR Master Mix: 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:

- **Eye contact**:
  - Reference Dye: No known significant effects or critical hazards.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: No known significant effects or critical hazards.

- **Inhalation**:
  - Reference Dye: No known significant effects or critical hazards.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: No known significant effects or critical hazards.

- **Skin contact**:
  - Reference Dye: No known significant effects or critical hazards.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: No known significant effects or critical hazards.

- **Ingestion**:
  - Reference Dye: No known significant effects or critical hazards.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: No known significant effects or critical hazards.

Over-exposure signs/symptoms:

- **Eye contact**:
  - Reference Dye: No specific data.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: No specific data.

- **Inhalation**:
  - Reference Dye: No specific data.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: No specific data.

- **Skin contact**:
  - Reference Dye: No specific data.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: No specific data.

- **Ingestion**:
  - Reference Dye: No specific data.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- **Notes to physician**:
  - Reference Dye: 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.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

- **Specific treatments**:
  - 2X Brilliant III SYBR® Green QPCR Master Mix: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- **Suitable extinguishing media**:
  - Reference Dye: Use an extinguishing agent suitable for the surrounding fire.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: Use an extinguishing agent suitable for the surrounding fire.

- **Unsuitable extinguishing media**:
  - Reference Dye: None known.
  - 2X Brilliant III SYBR® Green QPCR Master Mix: None known.

5.2 Special hazards arising from the substance or mixture
SECTION 5: Firefighting measures

**Hazardous combustion products**
- **Reference Dye**
- **2X Brilliant III SYBR® Green QPCR Master Mix**

Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- nitrogen oxides
- halogenated compounds
- metal oxide/oxides

In a fire or if heated, a pressure increase will occur and the container may burst.

**Special protective equipment for firefighters**
- **Reference Dye**
- **2X Brilliant III SYBR® Green 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.

5.3 Advice for firefighters

**Special precautions for fire-fighters**
- **Reference Dye**
- **2X Brilliant III SYBR® Green 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.

**Special protective equipment for firefighters**
- **Reference Dye**
- **2X Brilliant III SYBR® Green 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**
- **Reference Dye**
- **2X Brilliant III SYBR® Green 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.

**For emergency responders**
- **Reference Dye**
- **2X Brilliant III SYBR® Green 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".
SECTION 6: Accidental release measures

6.2 Environmental precautions

<table>
<thead>
<tr>
<th>Substance</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>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).</td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>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).</td>
</tr>
</tbody>
</table>

6.3 Methods and material for containment and cleaning up

<table>
<thead>
<tr>
<th>Substance</th>
<th>Methods for cleaning up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>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.</td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>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.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Protective measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Advice on general occupational hygiene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</td>
</tr>
</tbody>
</table>

7.2 Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Substance</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
</tbody>
</table>
closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

**Recommendations**

- Reference Dye
- 2X Brilliant III SYBR® Green QPCR Master Mix

**Industrial sector specific solutions**

- Reference Dye
- 2X Brilliant III SYBR® Green QPCR Master Mix

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**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 III SYBR® Green QPCR Master Mix</td>
<td>EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m³ 8 hours. Form: Mist</td>
</tr>
<tr>
<td>Glycerol</td>
<td></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.
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.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Eye/face protection

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

- Reference Dye: Liquid.
- 2X Brilliant III SYBR® Green QPCR Master Mix: Liquid.

Colour

- Reference Dye: Not available.
- 2X Brilliant III SYBR® Green QPCR Master Mix: Not available.

Odour

- Reference Dye: Not available.
- 2X Brilliant III SYBR® Green QPCR Master Mix: Not available.

Odour threshold

- Reference Dye: Not available.
- 2X Brilliant III SYBR® Green QPCR Master Mix: Not available.

pH

- Reference Dye: 8
- 2X Brilliant III SYBR® Green QPCR Master Mix: 7.8

Melting point/freezing point

- Reference Dye: Not available.
- 2X Brilliant III SYBR® Green QPCR Master Mix: Not available.

Initial boiling point and boiling range

- Reference Dye: Not available.
- 2X Brilliant III SYBR® Green QPCR Master Mix: Not available.
<table>
<thead>
<tr>
<th>Property</th>
<th>Reference Dye</th>
<th>2X Brilliant III SYBR® Green QPCR Master Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flash point</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Oxidising properties</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
### SECTION 9: Physical and chemical properties

#### 9.2 Other information
No additional information.

### SECTION 10: Stability and reactivity

| 10.1 Reactivity | : Reference Dye | No specific test data related to reactivity available for this product or its ingredients. |
| : 2X Brilliant III SYBR® Green QPCR Master Mix | No specific test data related to reactivity available for this product or its ingredients. |

| 10.2 Chemical stability | : Reference Dye | The product is stable. |
| : 2X Brilliant III SYBR® Green QPCR Master Mix | The product is stable. |

| 10.3 Possibility of hazardous reactions | : Reference Dye | Under normal conditions of storage and use, hazardous reactions will not occur. |
| : 2X Brilliant III SYBR® Green QPCR Master Mix | Under normal conditions of storage and use, hazardous reactions will not occur. |

| 10.4 Conditions to avoid | : Reference Dye | No specific data. |
| : 2X Brilliant III SYBR® Green QPCR Master Mix | No specific data. |

| 10.5 Incompatible materials | : Reference Dye | May react or be incompatible with oxidising materials. |
| : 2X Brilliant III SYBR® Green QPCR Master Mix | May react or be incompatible with oxidising materials. |

| 10.6 Hazardous decomposition products | : Reference Dye | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| : 2X Brilliant III SYBR® Green QPCR Master Mix | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

**Acute toxicity**
Not available.

**Acute toxicity estimates**
N/A

**Irritation/Corrosion**

**Conclusion/Summary**
Not available.

**Sensitiser**

**Conclusion/Summary**
Not available.

**Mutagenicity**

**Conclusion/Summary**
Not available.

**Carcinogenicity**

**Conclusion/Summary**
Not available.

**Reproductive toxicity**

**Conclusion/Summary**
Not available.

**Teratogenicity**

**Conclusion/Summary**
Not available.

**Specific target organ toxicity (single exposure)**
## SECTION 11: Toxicological information

<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 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on likely routes of exposure

| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix
| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |
| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |

### Potential acute health effects

#### Inhalation

| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |
| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |

#### Ingestion

| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |
| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |

#### Skin contact

| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |
| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |

#### Eye contact

| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |
| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |

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

#### Inhalation

| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |
| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |

#### Ingestion

| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |
| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |

#### Skin contact

| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |
| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |

#### Eye contact

| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |
| Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |

### 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 Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |
| General Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix |

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**Date of issue/Date of revision**: 30/10/2019  
**Date of previous issue**: 23/05/2018  
**Version**: 3  

Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600882  
SECTION 11: Toxicological information

| Carcinogenicity | : | Reference Dye | No known significant effects or critical hazards. |
| Mutagenicity | : | Reference Dye | No known significant effects or critical hazards. |
| Teratogenicity | : | Reference Dye | No known significant effects or critical hazards. |
| Developmental effects | : | Reference Dye | No known significant effects or critical hazards. |
| Fertility effects | : | 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.

Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600882

SECTION 13: Disposal considerations

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>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>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
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<td>-</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.5 Environmental hazards</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

Reference Dye: Not applicable.
2X Brilliant III SYBR® Green: Not applicable.
QPCR Master Mix

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air

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

Prior Informed Consent (PIC) (649/2012/EU)
SECTION 15: Regulatory information

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: All components are listed or exempted.
- Europe: 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]
**Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600882**

**SECTION 16: Other information**

<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**

| H315                   | Causes skin irritation.                            |
| H319                   | Causes serious eye irritation.                    |
| H335                   | May cause respiratory irritation.                  |

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

<table>
<thead>
<tr>
<th>Reference Dye</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Irrit. 2, H319</td>
<td>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>SKIN CORROSION/IRRITATION - Category 2</td>
</tr>
<tr>
<td>STOT SE 3, H335</td>
<td>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3</td>
</tr>
</tbody>
</table>

**Notice to reader**

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