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. (Kit) : 600804
Part No. : 2X Brilliant II QPCR Master Mix 600804-51
Reference Dye 600530-53

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

<table>
<thead>
<tr>
<th>Identified uses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical reagent.</td>
<td></td>
</tr>
<tr>
<td>2X Brilliant II QPCR Master Mix</td>
<td>2 x 2.5 ml</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>0.1 ml (100 µl 1 mM)</td>
</tr>
</tbody>
</table>

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 : 2X Brilliant II QPCR Master Mix
Reference Dye
Mixture
Mixture

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 inhalation toxicity: 10 - 30%
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown 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%

Date of issue/Date of revision : 19/12/2017
SECTION 2: Hazards identification

2.2 Label elements

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

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

<table>
<thead>
<tr>
<th>Precautionary statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prevention</strong></td>
</tr>
<tr>
<td>Reference Dye</td>
</tr>
</tbody>
</table>

| **Response** | 2X Brilliant II QPCR Master Mix | Not applicable. |
| Reference Dye | 2X Brilliant II QPCR Master Mix | Not applicable. |

| **Storage** | 2X Brilliant II QPCR Master Mix | Not applicable. |
| Reference Dye | 2X Brilliant II QPCR Master Mix | Not applicable. |

| **Disposal** | 2X Brilliant II QPCR Master Mix | Not applicable. |
| Reference Dye | 2X Brilliant II QPCR Master Mix | Not applicable. |

<p>| Hazardous ingredients | Reference Dye | Not applicable. |</p>
<table>
<thead>
<tr>
<th>Supplemental label elements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X Brilliant II QPCR Master Mix</strong></td>
</tr>
<tr>
<td>Reference Dye</td>
</tr>
</tbody>
</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>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X Brilliant II QPCR Master Mix</strong></td>
</tr>
<tr>
<td>Reference Dye</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special packaging requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X Brilliant II QPCR Master Mix</strong></td>
</tr>
<tr>
<td>Reference Dye</td>
</tr>
</tbody>
</table>

2.3 Other hazards

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

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>
</table>

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Brilliant II QPCR Master Mix, Part Number 600804

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Type</th>
<th>See Section 16 for the full text of the H statements declared above.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Substance classified with a health or environmental hazard</td>
<td></td>
</tr>
<tr>
<td>[2] Substance with a workplace exposure limit</td>
<td></td>
</tr>
<tr>
<td>[5] Substance of equivalent concern</td>
<td></td>
</tr>
<tr>
<td>[6] Additional disclosure due to company policy</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures

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

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

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

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

**Protection of first-aiders**
- 2X Brilliant II QPCR Master Mix
- Reference Dye

4.2 Most important symptoms and effects, both acute and delayed

**Potential acute health effects**

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

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

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## SECTION 4: First aid measures

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

### Skin contact
- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

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

### Over-exposure signs/symptoms

#### Eye contact
- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

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

#### Skin contact
- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

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

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

#### Notes to physician
- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

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

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media
- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

#### Unsuitable extinguishing media
- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

### 5.2 Special hazards arising from the substance or mixture

#### Hazards from the substance or mixture
- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

#### Hazardous combustion products
- **2X Brilliant II QPCR Master Mix**
- **Reference Dye**

**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.**

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SECTION 5: Firefighting measures

5.3 Advice for firefighters

Special precautions for fire-fighters: 2X Brilliant II QPCR Master Mix

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

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

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

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".

6.2 Environmental precautions: 2X Brilliant II QPCR Master Mix

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).

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

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SECTION 6: Accidental release measures

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.

7.3 Specific end use(s)

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SECTION 7: Handling and storage

Recommendations:

- 2X Brilliant II QPCR Master Mix
- Reference Dye

Industrial sector specific solutions:

- 2X Brilliant II QPCR Master Mix
- Reference Dye

SECTION 8: Exposure controls/personal protection

8.1 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</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). 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.

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.

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

**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

**Appearance**

<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>pH</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision**: 19/12/2017
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>
<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>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>
<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>
<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>
<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

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

No specific data.

10.5 Incompatible materials

May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Not available.

Acute toxicity estimates
Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

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 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

<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 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
</tbody>
</table>

Potential acute health effects

Ihalation

<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>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Ingestion

<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>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
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</tr>
</tbody>
</table>

Skin contact

<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>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Eye contact

<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>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation

<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>No specific data.</td>
</tr>
<tr>
<td>Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

Ingestion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Route of exposure</th>
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</thead>
<tbody>
<tr>
<td>2X Brilliant II QPCR Master Mix</td>
<td>No specific data.</td>
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<td>Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>No specific data.</td>
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Skin contact

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Route of exposure</th>
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</thead>
<tbody>
<tr>
<td>2X Brilliant II QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

Eye contact

<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>No specific data.</td>
</tr>
<tr>
<td>Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure
SECTION 11: Toxicological information

**Potential immediate effects**
- 2X Brilliant II QPCR Master Mix: Not available.
- Reference Dye: Not available.

**Potential delayed effects**
- 2X Brilliant II QPCR Master Mix: Not available.
- Reference Dye: Not available.

**Long term exposure**
- **Potential immediate effects**
  - 2X Brilliant II QPCR Master Mix: Not available.
  - Reference Dye: Not available.
- **Potential delayed effects**
  - 2X Brilliant II QPCR Master Mix: Not available.
  - Reference Dye: 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<sub>OC</sub>)**
- Not available.

**Mobility**
- Not available.

12.5 Results of PBT and vPvB assessment

**PBT**
- Not applicable.

**vPvB**
- Not applicable.

12.6 Other adverse effects

- No known significant effects or critical hazards.

**Date of issue/Date of revision**
- 19/12/2017
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

**ADR/RID / IMDG / IATA**: Not regulated.

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**

**Date of issue/Date of revision**: 19/12/2017
SECTION 15: Regulatory information

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

Montreal Protocol (Annexes A, B, C, E)
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list
Australia: Not determined.
Canada: Not determined.
China: All components are listed or exempted.
Europe: Not determined.
Japan: Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
Malaysia: Not determined.
New Zealand: Not determined.
Philippines: Not determined.
Republic of Korea: Not determined.
Taiwan: Not determined.
Thailand: Not determined.
Turkey: Not determined.
United States: Not determined.
Viet Nam: Not determined.

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]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

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.

Date of issue/Date of revision: 19/12/2017
SECTION 16: Other information

Full text of classifications [CLP/GHS]

<table>
<thead>
<tr>
<th>Reference Dye</th>
<th>Full text of classifications</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>

Date of issue/Date of revision: 19/12/2017

Date of previous issue: No previous validation.

Version: 1

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