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

1.1 Product identifier
Product name: Brilliant III Ultra-Fast QPCR Master Mix, 10-pack, Part Number 600881
Part no. (chemical kit): 600881
Part no.: 2X Brilliant III QPCR Master Mix 600880-51
Reference Dye 600530-53

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses: Analytical reagent.
- 2X Brilliant III QPCR Master Mix 10 x (2 x 2 ml)
- Reference Dye 10 x 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
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 III QPCR Master Mix: Mixture
- Reference Dye: Mixture

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

Ingredients of unknown toxicity:
- 2X Brilliant III QPCR Master Mix: Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
- Reference Dye: Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
- Reference Dye: Percentage of the mixture consisting of ingredient(s) of unknown 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.

**Brilliant III Ultra-Fast QPCR Master Mix, 10-pack, Part Number 600881**

**SECTION 2: Hazards identification**

### 2.2 Label elements

**Signal word**

2X Brilliant III QPCR Master Mix  
Reference Dye  
No signal word.

**Hazard statements**

2X Brilliant III QPCR Master Mix  
Reference Dye  
No known significant effects or critical hazards.

**Precautionary statements**

**Prevention**

2X Brilliant III QPCR Master Mix  
Reference Dye  
Not applicable.

**Response**

2X Brilliant III QPCR Master Mix  
Reference Dye  
Not applicable.

**Storage**

2X Brilliant III QPCR Master Mix  
Reference Dye  
Not applicable.

**Disposal**

2X Brilliant III QPCR Master Mix  
Reference Dye  
Not applicable.

**Hazardous ingredients**

Reference Dye  
Not applicable.

**Supplemental label elements**

2X Brilliant III QPCR Master Mix  
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**

**Special packaging requirements**

Tactile warning of danger  
2X Brilliant III QPCR Master Mix  
Reference Dye  
Not applicable.

### 2.3 Other hazards

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

2X Brilliant III QPCR Master Mix  
Reference Dye  
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>
| 2X Brilliant III QPCR Master Mix Glycerol | REACH #: Annex V  
EC: 200-289-5  
CAS: 56-81-5 | ≥10 - ≤25 | Not classified. | [2] |
| Reference Dye | EC: 214-684-5  
CAS: 1185-53-1 | ≤3 | Skin Irrit. 2, H315  
Eye Irrit. 2, H319  
STOT SE 3, H335 | [1] |

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SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Type</th>
<th>Substance classified with a health or environmental hazard</th>
<th>Substance with a workplace exposure limit</th>
<th>Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII</th>
<th>Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</th>
<th>Substance of equivalent concern</th>
<th>Additional disclosure due to company policy</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.

SECTION 4: First aid measures

4.1 Description of first aid measures

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>2X Brilliant III QPCR Master Mix</th>
<th>2X Brilliant III QPCR Master Mix</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference Dye</td>
<td></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>Inhalation</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>2X Brilliant III 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>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>Reference Dye</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>Skin contact</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>Reference Dye</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>2X Brilliant III 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>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>Reference Dye</td>
<td>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

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### SECTION 4: First aid measures

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>2X Brilliant III QPCR Master Mix</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>Skin contact</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>Ingestion</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
</tbody>
</table>

#### Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>2X Brilliant III QPCR Master Mix</th>
<th>No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>Skin contact</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>Ingestion</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Notes to physician</th>
<th>2X Brilliant III QPCR Master Mix</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>Specific treatments</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>2X Brilliant III QPCR Master Mix</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>None known.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
#### 5.2 Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th>Hazards from the substance or mixture</th>
<th>2X Brilliant III 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></td>
<td>Reference Dye</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>
SECTION 5: Firefighting measures

Hazardous combustion products : 2X Brilliant III QPCR Master Mix

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

Reference Dye

- 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 III 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 III 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 III 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 III 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".

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**Brilliant III Ultra-Fast QPCR Master Mix, 10-pack, Part Number 600881**

**SECTION 6: Accidental release measures**

### 6.2 Environmental precautions

- **2X Brilliant III QPCR Master Mix**
  - Avoid dispersal of spill 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 spill 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 III 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 III 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 III 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 III 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)

**Recommendations**

- 2X Brilliant III QPCR Master Mix
- Reference Dye

**Industrial sector specific solutions**

- 2X Brilliant III QPCR Master Mix
- Reference Dye

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 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.

- **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.

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: 7/14
SECTION 8: Exposure controls/personal protection

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.

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

Physical state: 2X Brilliant III QPCR Master Mix Liquid.

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

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

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

pH: 2X Brilliant III QPCR Master Mix 7.8

Melting point/freezing point: 2X Brilliant III QPCR Master Mix Not available.

Initial boiling point and boiling range: 2X Brilliant III QPCR Master Mix Not available.

Flash point: 2X Brilliant III QPCR Master Mix Not available.

Evaporation rate: 2X Brilliant III QPCR Master Mix Not available.

Flammability (solid, gas): 2X Brilliant III QPCR Master Mix Not applicable.

Upper/lower flammability or explosive limits: 2X Brilliant III QPCR Master Mix Not available.

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SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>2X Brilliant III QPCR Master Mix</th>
<th>Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available.</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.
**SECTION 10: Stability and reactivity**

<table>
<thead>
<tr>
<th>10.5 Incompatible materials</th>
<th>2X Brilliant III QPCR Master Mix</th>
<th>May react or be incompatible with oxidising materials.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference Dye</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10.6 Hazardous decomposition products</th>
<th>2X Brilliant III QPCR Master Mix</th>
<th>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference Dye</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>

**SECTION 11: Toxicological information**

11.1 Information on toxicological effects

**Acute toxicity**

Not available.

**Acute toxicity estimates**

Not available.

**Irritation/Corrosion**

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
<th>Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
</tr>
</tbody>
</table>

**Sensitiser**

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

**Mutagenicity**

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

**Carcinogenicity**

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

**Reproductive toxicity**

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

**Teratogenicity**

<table>
<thead>
<tr>
<th>Conclusion/Summary</th>
<th>Reference Dye</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>
</tbody>
</table>

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Information on likely routes of exposure**

<table>
<thead>
<tr>
<th>Routes of entry anticipated: Oral, Dermal, Inhalation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
</tbody>
</table>

**Potential acute health effects**

**Inhalation**

<table>
<thead>
<tr>
<th>Reference Dye</th>
</tr>
</thead>
</table>

**Ingestion**

<table>
<thead>
<tr>
<th>Reference Dye</th>
</tr>
</thead>
</table>

**Skin contact**

<table>
<thead>
<tr>
<th>Reference Dye</th>
</tr>
</thead>
</table>

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### SECTION 11: Toxicological information

**Eye contact**
- 2X Brilliant III 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**

<table>
<thead>
<tr>
<th>Route</th>
<th>Substance</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>2X Brilliant III QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>2X Brilliant III QPCR Master Mix</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**
- 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**

<table>
<thead>
<tr>
<th>Substance Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Developmental effects</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Fertility effects</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

### SECTION 12: Ecological information

**12.1 Toxicity**
- Conclusion/Summary: Not available.

**12.2 Persistence and degradability**
- Not available.
SECTION 12: Ecological information

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

PBT: Not applicable.

vPvB: Not applicable.

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

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.

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SECTION 15: Regulatory information

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 III QPCR Master Mix: Not applicable.
- Reference Dye: Not applicable.

Other EU regulations:
- Prior Informed Consent (PIC) (649/2012/EU): Not applicable.
- Seveso Directive:
  This product is not controlled under the Seveso Directive.

International regulations:
- Chemical Weapon Convention List Schedules I, II & III Chemicals: None of the components are 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.

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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.

Full text of classifications [CLP/GHS]

Reference Dye
- Eye Irrit. 2, H319: SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
- Skin Irrit. 2, H315: SKIN CORROSION/IRRITATION - Category 2
- STOT SE 3, H335: SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

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Date of previous issue: 26/01/2016
Version: 2

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