SAFETY DATA SHEET

Brilliant III Ultra-Fast SYBR Green QPCR Master Mix Sample Size, Part Number 930882

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 Sample Size, Part Number 930882
Part No. (Kit): 930882
Part No.: Brilliant III SYBR® Green QPCR Master Mix Sample Size 930882-51
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>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>1 mL</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>0.1 mL (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: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye

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 toxicity: 2.4%

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.

2.2 Label elements

Date of issue/Date of revision: 29/09/2016
SECTION 2: Hazards identification

Signal word: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye No signal word.

Hazard statements:
- Brilliant III SYBR® Green QPCR Master Mix Sample Size
  - No known significant effects or critical hazards.
- Reference Dye
  - No known significant effects or critical hazards.

Precautionary statements:
- Prevention:
  - Brilliant III SYBR® Green QPCR Master Mix Sample Size
    - Not applicable.
  - Reference Dye
    - Not applicable.
- Response:
  - Brilliant III SYBR® Green QPCR Master Mix Sample Size
    - Not applicable.
  - Reference Dye
    - Not applicable.
- Storage:
  - Brilliant III SYBR® Green QPCR Master Mix Sample Size
    - Not applicable.
  - Reference Dye
    - Not applicable.
- Disposal:
  - Brilliant III SYBR® Green QPCR Master Mix Sample Size
    - Not applicable.
  - Reference Dye
    - Not applicable.

Hazardous ingredients:
- Reference Dye
  - Not applicable.

Supplemental label elements:
- Supplemental label elements:
  - Brilliant III SYBR® Green QPCR Master Mix Sample Size
    - Safety data sheet available on request.
  - Reference Dye
    - Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:
- Brilliant III SYBR® Green QPCR Master Mix Sample Size
  - Not applicable.

Special packaging requirements:
- Tactile warning of danger:
  - Brilliant III SYBR® Green QPCR Master Mix Sample Size
    - Not applicable.
  - Reference Dye
    - Not applicable.

2.3 Other hazards
- Other hazards which do not result in classification:
  - Brilliant III SYBR® Green QPCR Master Mix Sample Size
    - None known.
  - Reference Dye
    - None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures:
- Brilliant III SYBR® Green QPCR Master Mix Sample Size
  - Mixture
- Reference Dye
  - Mixture
SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[5] Substance of equivalent concern

SECTION 4: First aid measures

4.1 Description of first aid measures

**Eye contact**: Brilliant III SYBR® Green QPCR Master Mix Sample Size 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. 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**: Brilliant III SYBR® Green QPCR Master Mix Sample Size Reference Dye
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
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.

**Skin contact**: Brilliant III SYBR® Green QPCR Master Mix Sample Size Reference Dye
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**: Brilliant III SYBR® Green QPCR Master Mix Sample Size 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.
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.

Date of issue/Date of revision: 29/09/2016
SECTION 4: First aid measures

Protection of first-aiders:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No action shall be taken involving any personal risk or without suitable training.

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No action shall be taken involving any personal risk or without suitable training.

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No action shall be taken involving any personal risk or without suitable training.

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No known significant effects or critical hazards.

Inhalation:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No known significant effects or critical hazards.

Skin contact:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No known significant effects or critical hazards.

Ingestion:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No specific data.

Inhalation:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No specific data.

Skin contact:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No specific data.

Ingestion:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Brilliant III SYBR® Green QPCR Master Mix Sample Size
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.

Specific treatments:

Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No specific treatment.
SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Use an extinguishing agent suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
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:
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:
Mentioned equipment includes fire-fighters wearing appropriate protective gear.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel:
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.
SECTION 6: Accidental release measures

Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

For emergency responders

- Brilliant III SYBR® Green QPCR Master Mix Sample Size
- 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

- Brilliant III SYBR® Green QPCR Master Mix Sample Size
- Reference Dye

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up
  - 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
  - Brilliant III SYBR® Green QPCR Master Mix Sample Size
  - Reference Dye

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

- Advice on general occupational hygiene
  - Brilliant III SYBR® Green QPCR Master Mix Sample Size
  - 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

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SECTION 7: Handling and storage

Storage : Brilliant III SYBR® Green QPCR Master Mix Sample Size
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.

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.

7.3 Specific end use(s)
Recommendations : Brilliant III SYBR® Green QPCR Master Mix Sample Size
Industrial applications, Professional applications.

Industrial sector specific solutions : Brilliant III SYBR® Green QPCR Master Mix Sample Size
Industrial applications, Professional applications.

Reference Dye
Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td></td>
</tr>
<tr>
<td>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.

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SECTION 8: Exposure controls/personal protection

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.

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.

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. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Brilliant III SYBR® Green QPCR Master Mix Sample Size Liquid.

Reference Dye: Brilliant III SYBR® Green QPCR Master Mix Sample Size Liquid.

Colour: Brilliant III SYBR® Green QPCR Master Mix Sample Size Not available.

Reference Dye: Brilliant III SYBR® Green QPCR Master Mix Sample Size Not available.

Odour: Brilliant III SYBR® Green QPCR Master Mix Sample Size Not available.

Reference Dye: Brilliant III SYBR® Green QPCR Master Mix Sample Size Not available.

Odour threshold: Brilliant III SYBR® Green QPCR Master Mix Sample Size Not available.

Reference Dye: Brilliant III SYBR® Green QPCR Master Mix Sample Size Not available.

pH: Brilliant III SYBR® Green QPCR Master Mix Sample Size 7.8

Reference Dye: Brilliant III SYBR® Green QPCR Master Mix Sample Size 8

Melting point/freezing point: Brilliant III SYBR® Green QPCR Master Mix Sample Size Reference Dye 0°C
SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Brilliant III SYBR® Green QPCR Master Mix Sample Size</th>
<th>Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</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>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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SECTION 9: Physical and chemical properties

### Oxidising properties

<table>
<thead>
<tr>
<th>Substance</th>
<th>Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR®</td>
<td>Not available.</td>
</tr>
<tr>
<td>Green QPCR Master Mix</td>
<td></td>
</tr>
<tr>
<td>Sample Size</td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
</tr>
</tbody>
</table>

#### 9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

### 10.1 Reactivity

<table>
<thead>
<tr>
<th>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR®</td>
<td>No specific test data related to reactivity available for this</td>
</tr>
<tr>
<td>Green QPCR Master Mix</td>
<td>product or its ingredients.</td>
</tr>
<tr>
<td>Sample Size</td>
<td>No specific test data related to reactivity available for this</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>product or its ingredients.</td>
</tr>
</tbody>
</table>

### 10.2 Chemical stability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR®</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Green QPCR Master Mix</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Sample Size</td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
</tr>
</tbody>
</table>

### 10.3 Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR®</td>
<td>Under normal conditions of storage and use, hazardous reactions</td>
</tr>
<tr>
<td>Green QPCR Master Mix</td>
<td>will not occur.</td>
</tr>
<tr>
<td>Sample Size</td>
<td>Under normal conditions of storage and use, hazardous reactions</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>will not occur.</td>
</tr>
</tbody>
</table>

### 10.4 Conditions to avoid

<table>
<thead>
<tr>
<th>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR®</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Green QPCR Master Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Sample Size</td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
</tr>
</tbody>
</table>

### 10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR®</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
<tr>
<td>Green QPCR Master Mix</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
<tr>
<td>Sample Size</td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
</tr>
</tbody>
</table>

### 10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR®</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>Green QPCR Master Mix</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>Sample Size</td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td></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>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusion/Summary</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### Sensitiser

<table>
<thead>
<tr>
<th>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusion/Summary</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific target organ</td>
<td></td>
</tr>
<tr>
<td>toxicity (single exposure)</td>
<td></td>
</tr>
</tbody>
</table>
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</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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:

- **Inhalation**: Brilliant III SYBR® Green QPCR Master Mix Sample Size
- **Reference Dye**: No specific data.
- **Route of entry anticipated**: Oral, Dermal, Inhalation.

Potential acute health effects

- **Inhalation**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.
- **Skin contact**: No known significant effects or critical hazards.
- **Eye contact**: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- **Inhalation**: No specific data.
- **Ingestion**: No specific data.
- **Skin contact**: No specific data.
- **Eye contact**: No specific data.

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

- **Short term exposure**
  - Potential immediate effects: Not available.
  - Potential delayed effects: Not available.

- **Long term exposure**
  - Potential immediate effects: Not available.

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SECTION 11: Toxicological information

Potential delayed effects: Not available.

Potential chronic health effects:

General: Brilliant III SYBR® Green QPCR Master Mix Sample Size Reference Dye No known significant effects or critical hazards.

Carcinogenicity: Brilliant III SYBR® Green QPCR Master Mix Sample Size Reference Dye No known significant effects or critical hazards.

Mutagenicity: Brilliant III SYBR® Green QPCR Master Mix Sample Size Reference Dye No known significant effects or critical hazards.

Teratogenicity: Brilliant III SYBR® Green QPCR Master Mix Sample Size Reference Dye No known significant effects or critical hazards.

Developmental effects: Brilliant III SYBR® Green QPCR Master Mix Sample Size Reference Dye No known significant effects or critical hazards.

Fertility effects: Brilliant III SYBR® Green QPCR Master Mix Sample Size 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

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects: No known significant effects or critical hazards.

Date of issue/Date of revision: 29/09/2016 12/15
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

Regulatory 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
Brilliant III SYBR® Green QPCR Master Mix Sample Size: Not applicable.
Reference Dye: Not applicable.

Other EU regulations
Europe inventory: Not determined.
Industrial emissions (integrated pollution prevention and control) - Air
Ozone depleting substances (1005/2009/EU)
Not listed.
Prior Informed Consent (PIC) (649/2012/EU)
Not listed.
SECTION 15: Regulatory information

**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.

**International lists**

**National inventory**

**Australia**
: Not determined.

**Canada**
: Not determined.

**China**
: All components are listed or exempted.

**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.

**Turkey**
: Not determined.

**United States**
: Not determined.

**15.2 Chemical safety assessment**
: This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

[ GREEN ]  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]**

**Date of issue/Date of revision**
: 29/09/2016
**SECTION 16: Other information**

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

**Date of issue/Date of revision**: 29/09/2016

**Date of previous issue**: No previous validation.

**Version**: 1

**Notice to reader**

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