SAFETY DATA SHEET

Brilliant Multiplex QPCR Master Mix, Part Number 600553

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

1.1 Product identifier

Product name: Brilliant Multiplex QPCR Master Mix, Part Number 600553
Part No. (Kit): 600553
Part No.: 2X Brilliant Multiplex 600553-51
QPCR Master Mix 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>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical reagent.</td>
</tr>
<tr>
<td>2X Brilliant Multiplex QPCR Master Mix 2.5 ml</td>
</tr>
<tr>
<td>Reference Dye 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 Multiplex Mixture
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 Multiplex Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
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 inhalation toxicity: 1 - 10%

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

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

Date of issue/Date of revision: 21/12/2017

**Brilliant Multiplex QPCR Master Mix, Part Number 600553**

**SECTION 2: Hazards identification**

2.2 Label elements

**Signal word**
- 2X Brilliant Multiplex QPCR Master Mix
- Reference Dye
  
  No signal word.

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

**Precautionary statements**

**Prevention**
- 2X Brilliant Multiplex QPCR Master Mix
- Reference Dye
  
  Not applicable.

**Response**
- 2X Brilliant Multiplex QPCR Master Mix
- Reference Dye
  
  Not applicable.

**Storage**
- 2X Brilliant Multiplex QPCR Master Mix
- Reference Dye
  
  Not applicable.

**Disposal**
- 2X Brilliant Multiplex QPCR Master Mix
- Reference Dye
  
  Not applicable.

**Hazardous ingredients**
- Reference Dye
  
  Not applicable.

**Supplemental label elements**
- 2X Brilliant Multiplex 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**
- 2X Brilliant Multiplex QPCR Master Mix
- Reference Dye
  
  Not applicable.

**Special packaging requirements**

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

2.3 Other hazards

**Other hazards which do not result in classification**
- 2X Brilliant Multiplex 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>
<tbody>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision**: 21/12/2017
Brilliant Multiplex QPCR Master Mix, Part Number 600553

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS:</th>
<th>Health &amp; Safety Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>propane-1,3-diol hydrochloride</td>
<td>1185-53-1</td>
<td>Type:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[1] Substance classified with a health or environmental hazard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[2] Substance with a workplace exposure limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[5] Substance of equivalent concern</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[6] Additional disclosure due to company policy</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact: 2X Brilliant Multiplex QPCR Master Mix

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

Reference Dye

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

Inhalation: 2X Brilliant Multiplex QPCR Master Mix

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

Reference Dye

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact: 2X Brilliant Multiplex QPCR Master Mix

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

Reference Dye

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

Ingestion: 2X Brilliant Multiplex QPCR Master Mix

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

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.

Protection of first-aiders: 2X Brilliant Multiplex QPCR Master Mix

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

Reference Dye

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

Date of issue/Date of revision: 21/12/2017

Potential acute health effects
SECTION 4: First aid measures

**Eye contact**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
No known significant effects or critical hazards.

**Inhalation**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
No known significant effects or critical hazards.

**Skin contact**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
No known significant effects or critical hazards.

**Ingestion**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
No specific data.

**Inhalation**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
No specific data.

**Skin contact**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
No specific data.

**Ingestion**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
No specific data.

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

**Notes to physician**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
No specific treatment.

SECTION 5: Firefighting measures

**5.1 Extinguishing media**

**Suitable extinguishing media**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
None known.

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

**Hazard from the substance or mixture**: 2X Brilliant Multiplex QPCR Master Mix
Reference Dye
In a fire or if heated, a pressure increase will occur and the container may burst.

Date of issue/Date of revision: 21/12/2017
**SECTION 5: Firefighting measures**

<table>
<thead>
<tr>
<th>Hazardous combustion products</th>
<th>2X Brilliant Multiplex QPCR Master Mix</th>
<th>Decomposition products may include the following materials:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference Dye</td>
<td>carbon dioxide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>carbon monoxide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Decomposition products may include the following materials:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>carbon dioxide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>carbon monoxide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nitrogen oxides</td>
</tr>
<tr>
<td></td>
<td></td>
<td>halogenated compounds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>metal oxide/oxides</td>
</tr>
</tbody>
</table>

5.3 Advice for firefighters

**Special precautions for fire-fighters**

2X Brilliant Multiplex 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

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.

**Special protective equipment for fire-fighters**

2X Brilliant Multiplex QPCR Master Mix

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

**SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

2X Brilliant Multiplex 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 spill 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 spill material. Put on appropriate personal protective equipment.

**For emergency responders**

2X Brilliant Multiplex 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".

6.2 Environmental precautions

2X Brilliant Multiplex 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.
Brilliant Multiplex QPCR Master Mix, Part Number 600553

SECTION 6: Accidental release measures

(sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up

<table>
<thead>
<tr>
<th>Material</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant Multiplex QPCR Master Mix</td>
<td>Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.</td>
</tr>
</tbody>
</table>

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

<table>
<thead>
<tr>
<th>Material</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant Multiplex QPCR Master Mix</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
</tr>
</tbody>
</table>

Advice on general occupational hygiene

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

7.2 Conditions for safe storage, including any incompatibilities

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

Date of issue/Date of revision: 21/12/2017
SECTION 7: Handling and storage

7.3 Specific end use(s)

Recommendations: 2X Brilliant Multiplex QPCR Master Mix
Industrial applications, Professional applications.

Reference Dye
Not applicable.

Industrial sector specific solutions: 2X Brilliant Multiplex QPCR Master Mix
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>2X Brilliant Multiplex QPCR Master Mix</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011).</td>
</tr>
<tr>
<td>Glycerol</td>
<td>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.

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.
SECTION 8: Exposure controls/personal protection

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 Multiplex QPCR Master Mix Liquid.
Reference Dye Liquid.

Colour: 2X Brilliant Multiplex QPCR Master Mix Not available.
Reference Dye Not available.

Odour: 2X Brilliant Multiplex QPCR Master Mix Not available.
Reference Dye Not available.

Odour threshold: 2X Brilliant Multiplex QPCR Master Mix Not available.
Reference Dye Not available.

pH: 2X Brilliant Multiplex QPCR Master Mix 8
Reference Dye 8

Melting point/freezing point: 2X Brilliant Multiplex QPCR Master Mix Not available.
Reference Dye Not available.

Initial boiling point and boiling range: 2X Brilliant Multiplex QPCR Master Mix Not available.
Reference Dye Not available.

Flash point: 2X Brilliant Multiplex QPCR Master Mix Not available.
Reference Dye Not available.

Evaporation rate: 2X Brilliant Multiplex QPCR Master Mix Not available.
Reference Dye Not available.

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

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

Vapour pressure: 2X Brilliant Multiplex QPCR Master Mix Not available.
Reference Dye Not available.
**SECTION 9: Physical and chemical properties**

- **Vapour density**: Not available.
- **Relative density**: Not available.
- **Solubility(ies)**: Easily soluble in the following materials: cold water and hot water.
- **Partition coefficient: n-octanol/water**: Not available.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Viscosity**: Not available.
- **Explosive properties**: Not available.
- **Oxidising properties**: Not available.

**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.
Brilliant Multiplex QPCR Master Mix, Part Number 600553

SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products

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

Reference Dye

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not available.

Acute toxicity estimates

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</td>
<td></td>
<td>Category 3</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

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

Potential acute health effects

Inhalation

: 2X Brilliant Multiplex QPCR Master Mix Reference Dye

No known significant effects or critical hazards.

Ingestion

: 2X Brilliant Multiplex QPCR Master Mix Reference Dye

No known significant effects or critical hazards.

Skin contact

: 2X Brilliant Multiplex QPCR Master Mix Reference Dye

No known significant effects or critical hazards.

Eye contact

: 2X Brilliant Multiplex QPCR Master Mix Reference Dye

No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation

: 2X Brilliant Multiplex QPCR Master Mix Reference Dye

No specific data.

Ingestion

: 2X Brilliant Multiplex QPCR Master Mix Reference Dye

No specific data.

Skin contact

: 2X Brilliant Multiplex QPCR Master Mix Reference Dye

No specific data.

Date of issue/Date of revision : 21/12/2017
SECTION 11: Toxicological information

### Potential chronic health effects

#### General

- **2X Brilliant Multiplex QPCR Master Mix**: No known significant effects or critical hazards.
- **Reference Dye**: No known significant effects or critical hazards.

#### Carcinogenicity

- **2X Brilliant Multiplex QPCR Master Mix**: No known significant effects or critical hazards.
- **Reference Dye**: No known significant effects or critical hazards.

#### Mutagenicity

- **2X Brilliant Multiplex QPCR Master Mix**: No known significant effects or critical hazards.
- **Reference Dye**: No known significant effects or critical hazards.

#### Teratogenicity

- **2X Brilliant Multiplex QPCR Master Mix**: No known significant effects or critical hazards.
- **Reference Dye**: No known significant effects or critical hazards.

#### Developmental effects

- **2X Brilliant Multiplex QPCR Master Mix**: No known significant effects or critical hazards.
- **Reference Dye**: No known significant effects or critical hazards.

#### Fertility effects

- **2X Brilliant Multiplex QPCR Master Mix**: No known significant effects or critical hazards.
- **Reference Dye**: No known significant effects or critical hazards.

### Eye contact

- **2X Brilliant Multiplex QPCR Master Mix**: No specific data.
- **Reference Dye**: No specific data.

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

#### Short term exposure

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

#### Long term exposure

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

### 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.

Date of issue/Date of revision: 21/12/2017
### SECTION 12: Ecological information

<table>
<thead>
<tr>
<th>vPvB</th>
<th>Not applicable.</th>
</tr>
</thead>
</table>

#### 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

#### 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 Multiplex 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)**

Date of issue/Date of revision: 21/12/2017
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.

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

Date of issue/Date of revision : 21/12/2017
SECTION 16: Other information

<table>
<thead>
<tr>
<th>Reference Dye</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
</tbody>
</table>

Full text of classifications [CLP/GHS]

<table>
<thead>
<tr>
<th>Reference Dye</th>
<th>Description</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 : 21/12/2017
Date of previous issue : No previous validation.
Version : 1

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