SAFETY DATA SHEET

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

Section 1. Identification

Product identifier : Brilliant III Ultra-Fast SYBR Green QPCR Master Mix Sample Size, Part Number 930882
Part no. (chemical kit) : 930882
Part no. : Brilliant III SYBR® Green QPCR Master Mix Sample Size 930882-51
Reference Dye 600530-53
Material uses : Analytical reagent.
Brilliant III SYBR® Green QPCR Master Mix Sample Size 1 ml
Reference Dye (100 µl 1 mM)
Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770
Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture
Brilliant III SYBR® Green QPCR Master Mix Sample Size
H320 EYE IRRITATION - Category 2B

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

Hazard statements : Brilliant III SYBR® Green QPCR Master Mix Sample Size H320 - Causes eye irritation.
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 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.
Reference Dye Not applicable.

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Date of previous issue : 04/30/2018
Version : 6
Section 2. Hazard identification

**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.

**Supplemental label elements**
- Brilliant III SYBR® Green QPCR Master Mix Sample Size: None known.
- Reference Dye: None known.

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

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

Section 3. Composition/information on ingredients

**Substance/mixture**
- Brilliant III SYBR® Green QPCR Master Mix Sample Size: Mixture
- Reference Dye: Mixture

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>10 - 30</td>
<td>56-81-5</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>3 - 7</td>
<td>67-68-5</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>0.5 - 1.5</td>
<td>7447-40-7</td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>1 - 5</td>
<td>7447-40-7</td>
</tr>
<tr>
<td>2-Amino-2-((hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>1 - 5</td>
<td>1185-53-1</td>
</tr>
</tbody>
</table>

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

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

**Eye contact**
- Brilliant III SYBR® Green QPCR Master Mix Sample Size: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Do not rinse for at least 10 minutes. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
- 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.
## Section 4. First-aid measures

| Inhalation | Brilliant III SYBR® Green QPCR Master Mix Sample Size | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skint contact | Brilliant III SYBR® Green QPCR Master Mix Sample Size | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | Brilliant III SYBR® Green QPCR Master Mix Sample Size | Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |

### Reference Dye

**Eye contact**

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

Causes eye irritation.

**Potential acute health effects**

- **Eye contact**: Causes eye irritation.
- **Reference Dye**: No known significant effects or critical hazards.
## Section 4. First-aid measures

**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
- Adverse symptoms may include the following:
  - irritation
  - watering
  - redness
- Reference Dye
- No specific data.

**Inhalation**
- Brilliant III SYBR® Green QPCR Master Mix Sample Size
- No specific data.

**Skin contact**
- Brilliant III SYBR® Green QPCR Master Mix Sample Size
- No specific data.

**Ingestion**
- Brilliant III SYBR® Green QPCR Master Mix Sample Size
- No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

**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. 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.

**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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)
### Section 5. Fire-fighting measures

**Extinguishing media**

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Brilliant III SYBR® Green QPCR Master Mix Sample Size</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>None known.</td>
</tr>
</tbody>
</table>

**Specific hazards arising from the chemical**

<table>
<thead>
<tr>
<th>Hazardous thermal decomposition products</th>
<th>Brilliant III SYBR® Green QPCR Master Mix Sample Size</th>
<th>In a fire or if heated, a pressure increase will occur and the container may burst.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Reference Dye</th>
<th>Decomposition products may include the following materials:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>carbon dioxide</td>
</tr>
<tr>
<td></td>
<td>carbon monoxide</td>
</tr>
<tr>
<td></td>
<td>sulfur oxides</td>
</tr>
<tr>
<td></td>
<td>halogenated compounds</td>
</tr>
<tr>
<td></td>
<td>metal oxide/oxides</td>
</tr>
</tbody>
</table>

**Special protective actions for fire-fighters**

<table>
<thead>
<tr>
<th>Special protective equipment for fire-fighters</th>
<th>Brilliant III SYBR® Green QPCR Master Mix Sample Size</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
<td></td>
</tr>
</tbody>
</table>

| 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. |

**Date of issue/Date of revision**: 08/11/2020

**Date of previous issue**: 04/30/2018

**Version**: 6
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Brilliant III SYBR® Green QPCR Master Mix Sample Size

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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Reference Dye

For emergency responders: Brilliant III SYBR® Green QPCR Master Mix Sample Size

If specialized 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

Environmental precautions: Brilliant III SYBR® Green QPCR Master Mix Sample Size

Avoid dispersal of spilled 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

Methods and materials for containment and cleaning up

Methods for cleaning up: Brilliant III SYBR® Green QPCR Master Mix Sample Size

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

Reference Dye
# Section 7. Handling and storage

## Precautions for safe handling

### Protective measures

- **Brilliant III SYBR® Green QPCR Master Mix Sample Size**
  - Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

- **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**
  - 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.

### Conditions for safe storage, including any incompatibilities

- **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 unlabeled 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours. Form: Mist CA Quebec Provincial (Canada, 1/2014). TWAEV: 10 mg/m³ 8 hours. Form: Mist CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. Form: mist TWA: 10 mg/m³ 8 hours. Form: mist CA Ontario Provincial (Canada, 1/2018). TWA: 10 mg/m³ 8 hours. Form: mist CA British Columbia Provincial (Canada, 5/2019). TWA: 3 mg/m³ 8 hours. Form: respirable mist TWA: 10 mg/m³ 8 hours. Form: total mist AIHA WEEL (United States, 7/2018). TWA: 250 ppm 8 hours.</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td></td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**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.

**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: chemical splash goggles.

**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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**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.
Section 8. Exposure controls/personal protection

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

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

Section 9. Physical and chemical properties

Appearance

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

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

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

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

pH: Brilliant III SYBR® Green QPCR Master Mix Sample Size 7.8
Reference Dye 8

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

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

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

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

Flammability (solid, gas): Brilliant III SYBR® Green QPCR Master Mix Sample Size Not applicable.
Reference Dye Not applicable.

Lower and upper explosive (flammable) limits: Brilliant III SYBR® Green QPCR Master Mix Sample Size Not applicable.
Reference Dye Not applicable.
Section 9. Physical and chemical properties

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

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

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

**Solubility**: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Soluble in the following materials: cold water and hot water.
Reference Dye
Easily soluble in the following materials: cold water and hot water.

**Partition coefficient: n-octanol/water**: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
Not available.

**Auto-ignition temperature**: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
Not available.

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

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

Section 10. Stability and reactivity

**Reactivity**: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
The product is stable.

**Possibility of hazardous reactions**: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
Under normal conditions of storage and use, hazardous reactions will not occur.
Section 10. Stability and reactivity

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

Incompatible materials: Brilliant III SYBR® Green QPCR Master Mix Sample Size
Reference Dye
May react or be incompatible with oxidizing materials.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>Glycerol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>40000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>14500 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>Potassium chloride</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2600 mg/kg</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>Glycerol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
</tr>
<tr>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 mg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 mg</td>
<td>-</td>
</tr>
<tr>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td>Potassium chloride</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
</tr>
</tbody>
</table>

Sensitization

Date of issue/Date of revision: 08/11/2020  Date of previous issue: 04/30/2018  Version: 6
11/17
Section 11. Toxicological information

Not available.

**Mutagenicity**

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

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

<table>
<thead>
<tr>
<th>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>-</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride

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

Not available.

**Aspiration hazard**

Not available.

**Information on the likely routes of exposure**

: Brilliant III SYBR® Green QPCR Master Mix Sample Size

Reference Dye

Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential acute health effects**

**Eye contact**

: Brilliant III SYBR® Green QPCR Master Mix Sample Size

Reference Dye

Causes eye irritation.

**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.

**Symptoms related to the physical, chemical and toxicological characteristics**
## Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Brilliant III SYBR® Green QPCR Master Mix Sample Size</th>
<th>Adverse symptoms may include the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference Dye</td>
<td>irritation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>watering</td>
</tr>
<tr>
<td></td>
<td></td>
<td>redness</td>
</tr>
<tr>
<td></td>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Brillant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

<table>
<thead>
<tr>
<th>Potential immediate effects</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential delayed effects</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### Long term exposure

<table>
<thead>
<tr>
<th>Potential immediate effects</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential delayed effects</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### Potential chronic health effects

<table>
<thead>
<tr>
<th>General</th>
<th>Brilliant III SYBR® Green QPCR Master Mix Sample Size</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference Dye</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Developmental effects</td>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Fertility effects</td>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

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Section 11. Toxicological information

### Numerical measures of toxicity

#### Acute toxicity estimates

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation (gases) (ppm)</th>
<th>Inhalation (vapors) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR Green QPCR Master Mix Sample Size</td>
<td>185614.8</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Brilliant III SYBR Green QPCR Master Mix Sample Size</td>
<td>12600</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Brilliant III SYBR Green QPCR Master Mix Sample Size</td>
<td>14500</td>
<td>40000</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Bright III SYBR® Green QPCR Master Mix Sample Size</td>
<td>2600</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Glycerol</td>
<td>12600</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>14500</td>
<td>40000</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>2600</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>70270.3</td>
<td>N/A</td>
<td>N/A</td>
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<td>N/A</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>2600</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</tbody>
</table>

#### Section 12. Ecological information

### Toxicty

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR Green QPCR Master Mix Sample Size</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td>Glycerol</td>
<td>Acute LC50 25000 ppm Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>Acute LC50 34000000 µg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td>Chronic NOEC 100 ul/L Marine water</td>
<td>Algae - Ulva lactuca</td>
<td>72 hours</td>
<td></td>
</tr>
<tr>
<td>Chronic NOEC 100 ul/L Fresh water</td>
<td>Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>21 days</td>
<td></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>Acute EC50 1337000 µg/l Fresh water</td>
<td>Algae - Navicula seminulum</td>
<td>96 hours</td>
</tr>
<tr>
<td>Acute LC50 9.24 g/L Fresh water</td>
<td>Algae - Desmodesmus subspicatus</td>
<td>72 hours</td>
<td></td>
</tr>
<tr>
<td>Acute LC50 141.46 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
<td></td>
</tr>
<tr>
<td>Acute LC50 12.77 mg/l Fresh water</td>
<td>Crustaceans - Pseudosida ramosa - Neonate</td>
<td>48 hours</td>
<td></td>
</tr>
<tr>
<td>Acute LC50 880 mg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td>Acute EC50 1337000 µg/l Fresh water</td>
<td>Algae - Navicula seminulum</td>
<td>96 hours</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>Acute EC50 9.24 g/L Fresh water</td>
<td>Algae - Desmodesmus subspicatus</td>
<td>72 hours</td>
</tr>
<tr>
<td>Acute EC50 141.46 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
<td></td>
</tr>
<tr>
<td>Acute LC50 12.77 mg/l Fresh water</td>
<td>Crustaceans - Pseudosida ramosa - Neonate</td>
<td>48 hours</td>
<td></td>
</tr>
<tr>
<td>Acute LC50 880 mg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
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</tr>
</tbody>
</table>

### Persistence and degradability

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Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>93 % - 30 days</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>31 % - Not readily - 28 days</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td></td>
<td></td>
<td>Not readily</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td></td>
<td></td>
<td>Readily</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td></td>
<td></td>
<td>Readily</td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
<td></td>
<td>Readily</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td></td>
<td></td>
<td>Readily</td>
</tr>
</tbody>
</table>

### Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size</td>
<td></td>
<td></td>
<td>low</td>
</tr>
<tr>
<td>Glycerol</td>
<td>-1.76</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>-1.35</td>
<td>3.16</td>
<td>low</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>-0.46</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>-0.46</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Mobility in soil

- Soil/water partition coefficient (K<sub>OC</sub>) : Not available.

### Other adverse effects

- No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty
### Section 13. Disposal considerations
Containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### Section 14. Transport information

**TDG / IMDG / IATA**: Not regulated.

**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.

**Transport in bulk according to IMO instruments**: Not available.

### Section 15. Regulatory information

#### Canadian lists
- **Canadian NPRI**: None of the components are listed.
- **CEPA Toxic substances**: None of the components are listed.

#### International regulations
- **Chemical Weapon Convention List Schedules I, II & III Chemicals**: Not listed.
- **Montreal Protocol**: Not listed.
- **Stockholm Convention on Persistent Organic Pollutants**: Not listed.
- **UNECE Aarhus Protocol on POPs and Heavy Metals**: Not listed.

#### Inventory list
- **Australia**: Not determined.
- **Canada**: Not determined.
- **China**: All components are listed or exempted.
- **Europe**: Not determined.
- **New Zealand**: Not determined.
- **Philippines**: Not determined.
- **Republic of Korea**: Not determined.
- **Taiwan**: Not determined.
- **Thailand**: Not determined.
- **Turkey**: Not determined.
- **United States**: Not determined.
- **Viet Nam**: Not determined.
Section 16. Other information

History

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Date of previous issue : 04/30/2018
Version : 6

Key to abbreviations : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
HPR = Hazardous Products Regulations  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
N/A = Not available  
UN = United Nations

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant III SYBR® Green QPCR Master Mix Sample Size EYE IRRITATION - Category 2B</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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