Section 1. Identification

Product identifier: Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600882
Part no. (chemical kit): 600882
Part no.: Reference Dye 600530-53
          2X Brilliant III SYBR® Green QPCR Master Mix 600882-51

Supplier/Manufacturer: Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation): CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture
Not classified.

Reference Dye
Percentage of the mixture consisting of ingredient(s)
of unknown acute dermal toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s)
of unknown acute inhalation toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s)
of unknown acute oral toxicity: 1 - 10%

2X Brilliant III SYBR® Green QPCR Master Mix
Percentage of the mixture consisting of ingredient(s)
of unknown acute dermal toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s)
of unknown acute inhalation toxicity: 10 - 30%

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

GHS label elements

Signal word: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
No signal word.
No signal word.

Hazard statements: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Precautionary statements

Prevention: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
Not applicable.
Not applicable.

Response: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
Not applicable.
Not applicable.
Section 2. Hazard(s) identification

Storage: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix

Disposal: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix

Supplemental label elements

Additional warning phrases: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix

Other hazards which do not result in classification: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix

Section 3. Composition and ingredient information

Substance/mixture: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix

CAS number/other identifiers

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>≥10 - ≤30</td>
<td>56-81-5</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>≤10</td>
<td>67-68-5</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

Description of necessary first aid measures

Eye contact: Reference Dye
2X Brilliant III SYBR® Green 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.

Inhalation: Reference Dye
2X Brilliant III SYBR® Green 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.

Skin contact: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

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Date of previous issue: 23/05/2018
Version: 6
## Section 4. First aid measures

### Ingestion

- **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.

- **2X Brilliant III SYBR® Green 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.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Eye contact</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

#### Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Eye contact</strong></td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Notes to physician</strong></td>
<td>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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td><strong>Specific treatments</strong></td>
<td>No specific treatment.</td>
</tr>
<tr>
<td><strong>Protection of first-aiders</strong></td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

---

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Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Firefighting measures

### Extinguishing media

**Suitable extinguishing media**
- Reference Dye: Use an extinguishing agent suitable for the surrounding fire.
- 2X Brilliant III SYBR® Green QPCR Master Mix: Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**
- Reference Dye: None known.
- 2X Brilliant III SYBR® Green QPCR Master Mix: None known.

### Specific hazards arising from the chemical

**Reference Dye**
- In a fire or if heated, a pressure increase will occur and the container may burst.
- 2X Brilliant III SYBR® Green QPCR Master Mix: In a fire or if heated, a pressure increase will occur and the container may burst.

### Hazardous thermal decomposition products

**Reference Dye**
- Decomposition products may include the following materials:
  - Carbon dioxide
  - Carbon monoxide
  - Nitrogen oxides
  - Halogenated compounds
  - Metal oxides

**2X Brilliant III SYBR® Green QPCR Master Mix**
- Decomposition products may include the following materials:
  - Carbon dioxide
  - Carbon monoxide
  - Sulfur oxides
  - Halogenated compounds
  - Metal oxides

### Special protective actions for fire-fighters

**Reference Dye**
- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- 2X Brilliant III SYBR® Green 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.

### Special protective equipment for fire-fighters

**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.
- 2X Brilliant III SYBR® Green 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.

Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**
- Reference Dye: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
- 2X Brilliant III SYBR® Green QPCR Master Mix: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Section 6. Accidental release measures

For emergency responders: 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".

Environmental precautions: 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).

Methods and material for containment and cleaning up

Methods for cleaning up: 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: Reference Dye
Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene: 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.
Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities**

Reference Dye

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

2X Brilliant III SYBR® Green QPCR Master Mix

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

**Control parameters**

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>Safe Work Australia (Australia, 4/2018). TWA: 10 mg/m³ 8 hours. DFG MAC-values list (Germany, 7/2018). Absorbed through skin. PEAK: 320 mg/m³, 4 times per shift, 15 minutes. TWA: 160 mg/m³ 8 hours. PEAK: 100 ppm, 4 times per shift, 15 minutes. TWA: 50 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: safety glasses with side-shields.

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Section 8. Exposure controls and personal protection

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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

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

Section 9. Physical and chemical properties

Appearance

Physical state: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Liquid.

Colour: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not available.

Odour: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not available.

Odour threshold: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not available.

pH: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- 8
- 7.8

Melting point: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not available.

Boiling point: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not available.

Flash point: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not available.

Evaporation rate: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not available.

Flammability (solid, gas): Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not applicable.

Lower and upper explosive (flammable) limits: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not available.

Vapour pressure: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not available.

Vapour density: Reference Dye
2X Brilliant III SYBR® Green QPCR Master Mix
- Not available.
Section 9. Physical and chemical properties

### Relative density
- **Reference Dye**: Not available.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: Not available.

### Solubility
- **Reference Dye**: Easily soluble in the following materials: cold water and hot water.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: Soluble in the following materials: cold water and hot water.

### Partition coefficient: n-octanol/water
- **Reference Dye**: Not available.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: Not available.

### Auto-ignition temperature
- **Reference Dye**: Not available.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: Not available.

### Decomposition temperature
- **Reference Dye**: Not available.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: Not available.

### Viscosity
- **Reference Dye**: Not available.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: Not available.

Section 10. Stability and reactivity

### Reactivity
- **Reference Dye**: No specific test data related to reactivity available for this product or its ingredients.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: No specific test data related to reactivity available for this product or its ingredients.

### Chemical stability
- **Reference Dye**: The product is stable.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: The product is stable.

### Possibility of hazardous reactions
- **Reference Dye**: Under normal conditions of storage and use, hazardous reactions will not occur.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: Under normal conditions of storage and use, hazardous reactions will not occur.

### Conditions to avoid
- **Reference Dye**: No specific data.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: No specific data.

### Incompatible materials
- **Reference Dye**: May react or be incompatible with oxidising materials.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: May react or be incompatible with oxidising materials.

### Hazardous decomposition products
- **Reference Dye**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **2X Brilliant III SYBR® Green QPCR Master Mix**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

### Acute toxicity

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Section 11. Toxicological information

### 2X Brilliant III SYBR® Green QPCR Master Mix

<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>Glycerol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>40000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>14500 mg/kg</td>
<td>-</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>Glycerol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

### Sensitisation

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)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on likely routes of exposure

**Reference Dye**: Reference Dye

**2X Brilliant III SYBR® Green QPCR Master Mix**: Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

**Eye contact**: Reference Dye

**2X Brilliant III SYBR® Green QPCR Master Mix**: No known significant effects or critical hazards.

**Inhalation**: Reference Dye

**2X Brilliant III SYBR® Green QPCR Master Mix**: No known significant effects or critical hazards.

**Skin contact**: Reference Dye

**2X Brilliant III SYBR® Green QPCR Master Mix**: No known significant effects or critical hazards.

---

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## Section 11. Toxicological information

### Ingestion

<table>
<thead>
<tr>
<th>Compound</th>
<th>Effect</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>No known significant effects or critical hazards.</td>
<td></td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>No known significant effects or critical hazards.</td>
<td></td>
</tr>
</tbody>
</table>

### Symptoms related to the physical, chemical and toxicological characteristics

#### Eye contact

<table>
<thead>
<tr>
<th>Compound</th>
<th>Effect</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>No specific data.</td>
<td></td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>No specific data.</td>
<td></td>
</tr>
</tbody>
</table>

#### Inhalation

<table>
<thead>
<tr>
<th>Compound</th>
<th>Effect</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>No specific data.</td>
<td></td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>No specific data.</td>
<td></td>
</tr>
</tbody>
</table>

#### Skin contact

<table>
<thead>
<tr>
<th>Compound</th>
<th>Effect</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>No specific data.</td>
<td></td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>No specific data.</td>
<td></td>
</tr>
</tbody>
</table>

#### Ingestion

<table>
<thead>
<tr>
<th>Compound</th>
<th>Effect</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>No specific data.</td>
<td></td>
</tr>
<tr>
<td>2X Brilliant III SYBR® Green QPCR Master Mix</td>
<td>No specific data.</td>
<td></td>
</tr>
</tbody>
</table>

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

#### Short term exposure

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

#### Long term exposure

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

### Potential chronic health effects

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

### Numerical measures of toxicity

#### Acute toxicity estimates
### Section 11. Toxicological information

<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 (vapours) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X Brilliant III SYBR® Green QPCR Master Mix</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>12600</td>
<td>14500</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section 12. Ecological information

#### Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X Brilliant III SYBR® Green QPCR Master Mix</strong></td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss - Fresh water 96 hours 48 hours</td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>Acute LC50 25000 ppm Fresh water</td>
<td>Fish - Daphnia - Daphnia magna - Fresh water 96 hours 72 hours</td>
<td></td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>Acute LC50 34000000 μg/l Fresh water</td>
<td>Fish - Pimephales promelas - Fresh water 96 hours 21 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 100 μL/L Marine water</td>
<td>Algae - Ulva lactuca - Marine water 96 hours 48 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 100 μL/L Fresh water</td>
<td>Daphnia - Daphnia magna - Fresh water 96 hours 48 hours</td>
<td></td>
</tr>
</tbody>
</table>

#### Persistence and degradability

<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><strong>2X Brilliant III SYBR® Green QPCR Master Mix</strong></td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>93 % - 30 days</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td>OECD 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></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Aquatic half-life

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X Brilliant III SYBR® Green QPCR Master Mix</strong></td>
<td>Fish - Oncorhynchus mykiss - Fresh water 96 hours 48 hours</td>
<td></td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td></td>
<td></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><strong>2X Brilliant III SYBR® Green QPCR Master Mix</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>-1.35</td>
<td>3.16</td>
<td>low</td>
</tr>
</tbody>
</table>

#### Mobility in soil

| Soil/water partition coefficient (K<sub>oc</sub>) | Not available. |

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**Date of issue/Date of revision**: 30/10/2019  
**Date of previous issue**: 23/05/2018  
**Version**: 6  
**Page**: 11/13
Section 12. Ecological information

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

Section 13. Disposal considerations

Disposal methods: 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. 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. 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

ADG / IMDG / IATA: Not regulated as Dangerous Goods according to the ADG Code.

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 Annex II of Marpol and the IBC Code: Not available.

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons
6

Model Work Health and Safety Regulations - Scheduled Substances
No listed substance

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.
New Zealand: Not determined.
Section 15. Regulatory information

- 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. Any other relevant information

History

- Date of issue/Date of revision: 30/10/2019
- Date of previous issue: 23/05/2018
- Version: 6

Key to abbreviations:
- ADG = Australian Dangerous Goods
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- 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
- SUSMP = Standard Uniform Schedule of Medicine and Poisons
- UN = United Nations

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not classified.</td>
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</tr>
</tbody>
</table>

References: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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