Section 1. Identification

1.1 Product identifier
Product name : Brilliant III Ultra-Fast QPCR Master Mix Sample Size, Part Number 930880
Part no. (chemical kit) : 930880
Part no. : 2X Brilliant III QPCR Master Mix Sample Size Reference Dye 930880-51 600530-53
Validation date : 8/11/2020

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses : Analytical reagent.
2X Brilliant III QPCR Master Mix Sample Size 1 ml Reference Dye (100 µl 1 mM)

1.3 Details of the supplier of the safety data sheet
Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

1.4 Emergency telephone number
In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture
OSHA/HCS status : 2X Brilliant III QPCR Master Mix Sample Size Reference Dye
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

2.2 GHS label elements
Signal word : 2X Brilliant III QPCR Master Mix Sample Size Reference Dye Warning
No signal word.
Hazard statements : 2X Brilliant III QPCR Master Mix Sample Size Reference Dye H320 - Causes eye irritation.
No known significant effects or critical hazards.

Date of issue : 08/11/2020
Section 2. Hazards identification

**Precautionary statements**

**Prevention**: 2X Brilliant III QPCR Master Mix Sample Size Not applicable.

**Response**: 2X Brilliant III 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.

**Storage**: 2X Brilliant III QPCR Master Mix Sample Size Not applicable.

**Disposal**: 2X Brilliant III QPCR Master Mix Sample Size Not applicable.

**Supplemental label elements**: 2X Brilliant III QPCR Master Mix Sample Size None known.

2.3 Other hazards

**Hazards not otherwise classified**: 2X Brilliant III QPCR Master Mix Sample Size None known.

Section 3. Composition/information on ingredients

**Substance/mixture**: 2X Brilliant III QPCR Master Mix Sample Size Mixture

Reference Dye Mixture

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>≥10 - ≤25</td>
<td>56-81-5</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>≤3</td>
<td>7447-40-7</td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>≤5</td>
<td>7447-40-7</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>≤3</td>
<td>1185-53-1</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

4.1 Description of necessary first aid measures
# Section 4. First aid measures

## Eye contact

<table>
<thead>
<tr>
<th>2X Brilliant III QPCR Master Mix Sample Size</th>
<th>Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td></td>
</tr>
</tbody>
</table>

## Inhalation

<table>
<thead>
<tr>
<th>2X Brilliant III QPCR Master Mix Sample Size</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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.</td>
</tr>
</tbody>
</table>

## Skin contact

<table>
<thead>
<tr>
<th>2X Brilliant III QPCR Master Mix Sample Size</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

## Ingestion

<table>
<thead>
<tr>
<th>2X Brilliant III QPCR Master Mix Sample Size</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Dye</td>
<td>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get</td>
</tr>
</tbody>
</table>
Section 4. First aid measures

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

**Eye contact**: 2X Brilliant III QPCR Master Mix Sample Size
Reference Dye

Causes eye irritation.

**Inhalation**: 2X Brilliant III QPCR Master Mix Sample Size
Reference Dye

No known significant effects or critical hazards.

**Skin contact**: 2X Brilliant III QPCR Master Mix Sample Size
Reference Dye

No known significant effects or critical hazards.

**Ingestion**: 2X Brilliant III QPCR Master Mix Sample Size
Reference Dye

No known significant effects or critical hazards.

Over-exposure signs/symptoms

**Eye contact**: 2X Brilliant III QPCR Master Mix Sample Size
Reference Dye

Adverse symptoms may include the following:

- irritation
- watering
- redness

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.

Notes to physician

**Notes to physician**: 2X Brilliant III 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

**Specific treatments**: 2X Brilliant III QPCR Master Mix Sample Size
Reference Dye

No specific treatment.

Protection of first-aiders

**Protection of first-aiders**: 2X Brilliant III QPCR Master Mix Sample Size
Reference Dye

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

See toxicological information (Section 11)

Date of issue: 08/11/2020
Section 5. Fire-fighting measures

5.1 Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>2X Brilliant III 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>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>None known.</td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th>Specific hazards arising from the chemical</th>
<th>2X Brilliant III 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>
<tbody>
<tr>
<td>Hazardous thermal decomposition products</td>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds, metal oxide/oxides.</td>
</tr>
</tbody>
</table>

5.3 Advice for firefighters

<table>
<thead>
<tr>
<th>Special protective actions for fire-fighters</th>
<th>2X Brilliant III 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>Special protective equipment for fire-fighters</td>
<td>2X Brilliant III QPCR Master Mix Sample Size</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>
</tr>
</tbody>
</table>

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Section 6. Accidental release measures

For non-emergency personnel : 2X Brilliant III 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

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. Put on appropriate personal protective equipment.

For emergency responders : 2X Brilliant III 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

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".

6.2 Environmental precautions : 2X Brilliant III 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

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).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : 2X Brilliant III 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

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

#### 7.1 Precautions for safe handling

<table>
<thead>
<tr>
<th>Protective measures</th>
<th>2X Brilliant III QPCR Master Mix Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advice on general occupational hygiene</td>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
</tr>
</tbody>
</table>

- **Protective measures**: 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.

- **Advice on general occupational hygiene**: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

---

#### 7.2 Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>2X Brilliant III QPCR Master Mix Sample Size</th>
</tr>
</thead>
</table>

- **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.**

---

#### 7.3 Specific end use(s)

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>2X Brilliant III QPCR Master Mix Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial sector specific solutions</td>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
</tr>
</tbody>
</table>

- **Recommendations**: Industrial applications, Professional applications.

- **Industrial sector specific solutions**: Not applicable.
## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>OSHA PEL (United States, 5/2018).</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>None.</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>None.</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>None.</td>
</tr>
</tbody>
</table>

### 8.2 Exposure controls

#### 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.

**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.

**Date of issue**: 08/11/2020
Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>2X Brilliant III QPCR Master Mix Sample Size</th>
<th>Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state</strong></td>
<td>Liquid.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>7.8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Boiling point</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Lower and upper explosive (flammable) limits</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Date of issue: 08/11/2020
Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>2X Brilliant III QPCR Master Mix Sample Size</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>Not available.</td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>10.1 Reactivity</th>
<th>2X Brilliant III QPCR Master Mix Sample Size</th>
<th>No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>10.2 Chemical stability</td>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>The product is stable.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td>The product is stable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.3 Possibility of hazardous reactions</td>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>10.4 Conditions to avoid</td>
<td>2X Brilliant III 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></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.5 Incompatible materials</td>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>10.6 Hazardous decomposition products</td>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td></td>
<td>Reference Dye</td>
<td></td>
</tr>
</tbody>
</table>

Section 11. Toxicological information

11.1 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>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**

Date of issue: 08/11/2020
**Section 11. Toxicological information**

<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>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>Glycerol - Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Glycerol - Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Potassium chloride - Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>Potassium chloride - Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Sensitization**
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>
<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 the likely routes of exposure**
2X Brilliant III QPCR Master Mix Sample Size
Reference Dye
Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential acute health effects**

**Eye contact**
2X Brilliant III QPCR Master Mix Sample Size
Reference Dye
Causes eye irritation.

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

**Skin contact**
2X Brilliant III QPCR Master Mix Sample Size
Reference Dye
No known significant effects or critical hazards.
## Section 11. Toxicological information

### Ingestion
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- No known significant effects or critical hazards.

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

#### Eye contact
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- Adverse symptoms may include the following:
  - irritation
  - watering
  - redness
- No specific data.

#### Inhalation
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- No specific data.

#### Skin contact
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- No specific data.

#### Ingestion
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- No specific data.

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

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

#### Long term exposure
- **Potential immediate effects**
  - Not available.
- **Potential delayed effects**
  - Not available.

### Potential chronic health effects

#### General
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- No known significant effects or critical hazards.

#### Carcinogenicity
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- No known significant effects or critical hazards.

#### Mutagenicity
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- No known significant effects or critical hazards.

#### Teratogenicity
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- No known significant effects or critical hazards.

#### Developmental effects
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- No known significant effects or critical hazards.

#### Fertility effects
- 2X Brilliant III QPCR Master Mix Sample Size
- Reference Dye
- No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

---

**Date of issue:** 08/11/2020
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 (vapors) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
<td></td>
<td>190265.5</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
<td></td>
<td>12600</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Glycerol</td>
<td>12600</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>2600</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>70270.3</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>2600</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant III 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 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></td>
<td>Acute EC50 141.46 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 12.77 mg/l Fresh water</td>
<td>Crustaceans - Pseudosida ramosa - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 880 mg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</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></td>
<td>Acute EC50 141.46 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 12.77 mg/l Fresh water</td>
<td>Crustaceans - Pseudosida ramosa - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 880 mg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

12.2 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>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>93 % - 30 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant III QPCR Master Mix Sample Size</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></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

12.3 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>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Glycerol</td>
<td>-0.46</td>
<td>-</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>

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.
Section 14. Transport information

DOT / TDG / Mexico / 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.

- Not available.

Transport in bulk according to IMO instruments:

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal regulations:

- Clean Water Act (CWA) 311: Edetic acid
- Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): Not listed
- Clean Air Act Section 602 Class I Substances: Not listed
- Clean Air Act Section 602 Class II Substances: Not listed
- DEA List I Chemicals (Precursor Chemicals): Not listed
- DEA List II Chemicals (Essential Chemicals): Not listed
- TSCA 8(a) PAIR: Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl].-omega.-hydroxy-. Polyoxylethene octyl phenyl ether
- TSCA 8(a) CDR Exempt/Partial exemption: Not determined
- Clean Water Act (CWA) 311: Edetic acid

Clean Air Act Section 112:

- Not listed

Clean Air Act Section 602:

- Not listed

Clean Air Act Section 602:

- Not listed

DEA List I Chemicals (Precursor Chemicals):

- Not listed

DEA List II Chemicals (Essential Chemicals):

- Not listed

SARA 302/304:

- Composition/information on ingredients:
  
  No products were found.

SARA 304 RQ:

- Not applicable.

SARA 311/312:

- Classification:
  
  2X Brilliant III QPCR Master Mix Sample Size
  
  EYE IRRITATION - Category 2B

  Not applicable.

Composition/information on ingredients:

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant III QPCR Master Mix Sample Size</td>
<td>≥10 - ≤25</td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>≤3</td>
<td>EYE IRRITATION - Category 2B</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>≤3</td>
<td>EYE IRRITATION - Category 2B</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>≤5</td>
<td>EYE IRRITATION - Category 2B</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>≤5</td>
<td>SKIN IRRITATION - Category 2</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>≤3</td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
</tr>
</tbody>
</table>

Date of issue: 08/11/2020
Section 15. Regulatory information

State regulations

Massachusetts : The following components are listed: GLYCERINE MIST
New York : None of the components are listed.
New Jersey : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL
Pennsylvania : The following components are listed: 1,2,3-PROPANETRIOL

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

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.

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.

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

Date of issue : 08/11/2020
Date of previous issue : 04/30/2018
Version : 6
Section 16. Other information

Key to abbreviations:
- 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
- UN = United Nations

Procedure used to derive the classification

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

Notice to reader

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