Section 1. Identification

1.1 Product identifier
Product name: QPCR Library Quantitation Kit - Custom - Illumina GA, Part Number 930901
Part no. (chemical kit): 930901
Part no.: 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 930901-51
50X Illumina GA Primer Mix 5190-2375
Validation date: 4/30/2018

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses: Analytical reagent.
2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 40 ml (2 ml / Tube)
50× Illumina GA Primer Mix 10 x 0.2 ml

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: 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
50X Illumina GA Primer Mix
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.

Classification of the substance or mixture
2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
H320
Ingredients of unknown toxicity: 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
EYE IRRITATION - Category 2B
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%

2.2 GHS label elements
Signal word: Warning

Date of issue: 04/30/2018
Section 2. Hazards identification

Hazard statements:
- H320 - Causes eye irritation.
- No known significant effects or critical hazards.

Precautionary statements:

Prevention:
- P264 - Wash hands thoroughly after handling.
- Not applicable.

Response:
- 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 attention.
- Not applicable.

Storage:
- Not applicable.

Disposal:
- Not applicable.

Supplemental label elements:
- None known.

2.3 Other hazards

Hazard statements:
- None known.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>Glycerol</td>
<td>≥10 - ≤25</td>
<td>56-81-5</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>Dimethyl sulfoxide</td>
<td>≤10</td>
<td>67-68-5</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>Potassium chloride</td>
<td>≤3</td>
<td>7447-40-7</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

Date of issue: 04/30/2018
## Section 4. First aid measures

### Eye contact

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Action Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>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.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>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.</td>
</tr>
</tbody>
</table>

### Inhalation

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Action Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>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.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

### Skin contact

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Action Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>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.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</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>Ingredient</th>
<th>Action Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>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.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</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 medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

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

*Ingestion*
Section 4. First aid measures

Potential acute health effects

**Eye contact**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Causes eye irritation.
- No known significant effects or critical hazards.

**Inhalation**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - No known significant effects or critical hazards.

**Skin contact**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - No known significant effects or critical hazards.

**Ingestion**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - No known significant effects or critical hazards.

Over-exposure signs/symptoms

**Eye contact**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
  - Adverse symptoms may include the following:
    - irritation
    - watering
    - redness
- 50X Illumina GA Primer Mix
  - No specific data.

**Inhalation**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
  - No specific data.

**Skin contact**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
  - No specific data.

**Ingestion**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
  - No specific data.

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

**Notes to physician**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - No specific treatment.

**Protection of first-aiders**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - No action shall be taken involving any personal risk or without suitable training.

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

5.1 Extinguishing media

<table>
<thead>
<tr>
<th align="left">Suitable extinguishing media</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td></td>
<td></td>
</tr>
<tr>
<td align="left">50X Illumina GA Primer Mix</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th align="left">Unsuitable extinguishing media</th>
<th>None known.</th>
<th>None known.</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td></td>
<td></td>
</tr>
<tr>
<td align="left">50X Illumina GA Primer Mix</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th align="left">Specific hazards arising from the chemical</th>
<th>In a fire or if heated, a pressure increase will occur and the container may burst.</th>
<th>In a fire or if heated, a pressure increase will occur and the container may burst.</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td></td>
<td></td>
</tr>
<tr>
<td align="left">50X Illumina GA Primer Mix</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th align="left">Hazardous thermal decomposition products</th>
<th>Decomposition products may include the following materials:</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>carbon dioxide, carbon monoxide, sulfur oxides, halogenated compounds, metal oxide/oxides, 50X Illumina GA Primer Mix, No specific data.</td>
</tr>
</tbody>
</table>

5.3 Advice for firefighters

<table>
<thead>
<tr>
<th align="left">Special protective actions for fire-fighters</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 align="left">2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td></td>
</tr>
<tr>
<td align="left">50X Illumina GA Primer Mix</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th align="left">Special protective equipment for fire-fighters</th>
<th>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td></td>
</tr>
<tr>
<td align="left">50X Illumina GA Primer Mix</td>
<td></td>
</tr>
</tbody>
</table>

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

<table>
<thead>
<tr>
<th align="left">For non-emergency personnel</th>
<th>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.</th>
<th>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td></td>
<td></td>
</tr>
<tr>
<td align="left">50X Illumina GA Primer Mix</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 6. Accidental release measures

For emergency responders:
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix

6.2 Environmental precautions:
- 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:
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix

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

Protective measures:
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix

Put on appropriate personal protective equipment (see Section 8). Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Date of issue: 04/30/2018
# Section 7. Handling and storage

## Advice on general occupational hygiene

<table>
<thead>
<tr>
<th>Product</th>
<th>Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</td>
</tr>
</tbody>
</table>

## 7.2 Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Product</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
</tbody>
</table>

## 7.3 Specific end use(s)

### Recommendations

<table>
<thead>
<tr>
<th>Product</th>
<th>End use(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>Industrial applications, Professional applications.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>Industrial applications, Professional applications.</td>
</tr>
</tbody>
</table>

### Industrial sector specific solutions

<table>
<thead>
<tr>
<th>Product</th>
<th>End use(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

# Section 8. Exposure controls/personal protection

## 8.1 Control parameters

### Occupational exposure limits
Section 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust OSHA PEL (United States, 6/2016). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td></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: 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.

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: 04/30/2018
Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**

**Physical state**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Liquid.

**Melting point**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - 0°C (32°F)

**Boiling point**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - 100°C (212°F)

**Odor**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

**Odor threshold**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

**pH**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

**Color**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

**Evaporation rate**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

**Flammability (solid, gas)**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not applicable.

**Lower and upper explosive (flammable) limits**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

**Vapor pressure**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

**Vapor density**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

**Relative density**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

**Solubility**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Easily soluble in the following materials: cold water and hot water.

**Partition coefficient: n-octanol/water**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

**Auto-ignition temperature**
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
  - Not available.

Date of issue: 04/30/2018
Section 9. Physical and chemical properties

Decomposition temperature :  
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
Not available.

Viscosity :  
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
Not available.

Section 10. Stability and reactivity

10.1 Reactivity :  
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability :  
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
The product is stable.

10.3 Possibility of hazardous reactions :  
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid :  
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
No specific data.

10.5 Incompatible materials :  
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
May react or be incompatible with oxidizing materials.

10.6 Hazardous decomposition products :  
- 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
- 50X Illumina GA Primer Mix
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<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>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</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>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>
<tr>
<td>Potassium chloride</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2600 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion
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 Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td>Skin - 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></td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</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)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on the likely routes of exposure
2x Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix
Routes of entry anticipated: Oral, Dermal, Inhalation.
Not available.

Potential acute health effects
Eye contact
2x Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix
Causes eye irritation.

Inhalation
2x Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix
No known significant effects or critical hazards.

Skin contact
2x Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix
No known significant effects or critical hazards.
## Section 11. Toxicological information

### Ingestion

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

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

#### Eye contact

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>Adverse symptoms may include the following:</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

#### Inhalation

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

#### Skin contact

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

#### Ingestion

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix</td>
<td>No specific data.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</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

**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**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Mutagenicity**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Teratogenicity**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Developmental effects**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Fertility effects**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 50X Illumina GA Primer Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>50X Illumina GA Primer Mix</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>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix Oral</td>
<td>183805.5 mg/kg</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>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix Glycerol</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>Acute LC50 25000 ppm Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>Acute LC50 34000000 µg/l Fresh water Chronic NOEC 100 ul/L Marine water Acute EC50 1337000 µg/l Fresh water Acute EC50 9.24 g/L Fresh water</td>
<td>Fish - Pimephales promelas Algae - Ulva lactuca Algae - Navicula seminulum Algae - Desmodesmus subspicatus Daphnia - Daphnia magna Crustaceans - Pseudosida ramosa - Neonate Fish - Pimephales promelas</td>
<td>96 hours 72 hours 96 hours 48 hours</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>Acute LC50 141460 µg/l Fresh water</td>
<td></td>
<td>48 hours</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>Acute LC50 880 mg/l Fresh water</td>
<td></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>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix Glycerol</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>93 % - 30 days</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>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix 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>
<tr>
<td>Potassium chloride</td>
<td>-0.46</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Date of issue: 04/30/2018
## Section 12. Ecological information

| Soil/water partition coefficient ($K_{OC}$) | 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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.

**Transport in bulk according to Annex II of MARPOL and the IBC Code**: Not available.

## Section 15. Regulatory information

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

**U.S. Federal regulations**

- **TSCA 8(a) PAIR**: Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-
- **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined
- **Clean Water Act (CWA) 311**: Edetic acid

- **Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)**: Not listed

**Date of issue**: 04/30/2018
Section 15. Regulatory information

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

SARA 302/304
Composition/information on ingredients
No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312 Classification : 
2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix
EYE IRRITATION - Category 2B
50X Illumina GA Primer Mix
Not applicable.

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix</td>
<td>≥10 - ≤25</td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td>Glycerol</td>
<td>≤10</td>
<td>FLAMMABLE LIQUIDS - Category 4</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>≤3</td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>≤10</td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
</tbody>
</table>

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; DIMETHYL SULFOXIDE; METHANE, SULFINYLBI-

Pennsylvania : The following components are listed: 1,2,3-PROPANETRIOL

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 : All components are listed or exempted.

Date of issue : 04/30/2018
Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Europe</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Japan</td>
<td>Japan inventory (ENCS): Not determined.</td>
</tr>
<tr>
<td></td>
<td>Japan inventory (ISHL): Not determined.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Not determined.</td>
</tr>
<tr>
<td>New Zealand</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Philippines</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Taiwan</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Turkey</td>
<td>Not determined.</td>
</tr>
<tr>
<td>United States</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

Section 16. Other information

History

Date of issue      : 04/30/2018
Date of previous issue : 08/03/2016
Version            : 3

Procedure used to derive the classification

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

Notice to reader

Disclaimer: The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.