Section 1. Identification

1.1 Product identifier
Product name: Brilliant II QRT-PCR Low ROX Master Mix - 1-Step, Part Number 600837
Part no. (chemical kit): 600837
Part no.: 2X Brilliant II QRT-PCR Low ROX Master Mix 600837-51
RT/RNase Block Enzyme Mixture 600809-52
Validation date: 4/25/2019

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses: Analytical reagent.

2X Brilliant II QRT-PCR Low ROX Master Mix 2 x 2.5 ml
RT/RNase Block Enzyme Mixture 0.4 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: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture
2X Brilliant II QRT-PCR Low ROX Master Mix
H320 EYE IRRITATION - Category 2B

RT/RNase Block Enzyme Mixture
H320 EYE IRRITATION - Category 2B

Ingredients of unknown toxicity:
2X Brilliant II QRT-PCR Low ROX Master Mix
RT/RNase Block Enzyme Mixture
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%

2.2 GHS label elements
Signal word: Warning

Date of issue: 04/25/2019
Section 2. Hazards identification

### Hazard statements

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>H320 - Causes eye irritation.</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>H320 - Causes eye irritation.</td>
</tr>
</tbody>
</table>

### Precautionary statements

#### Prevention

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>P264 - Wash hands thoroughly after handling.</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>P264 - Wash hands thoroughly after handling.</td>
</tr>
</tbody>
</table>

#### Response

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Response statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>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.</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>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.</td>
</tr>
</tbody>
</table>

#### Storage

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Storage statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

#### Disposal

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Disposal statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

#### Supplemental label elements

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Supplemental label elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>None known.</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>None known.</td>
</tr>
</tbody>
</table>

### 2.3 Other hazards

Hazards not otherwise classified:

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Hazards not otherwise classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>None known.</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>None known.</td>
</tr>
</tbody>
</table>

Section 3. Composition/information on ingredients

### Substance/mixture

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td></td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td></td>
</tr>
</tbody>
</table>

### Ingredient name

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>≥10 - ≤25</td>
<td>56-81-5</td>
</tr>
<tr>
<td>Polyethylene glycol</td>
<td>≥10 - &lt;20</td>
<td>25322-68-3</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>≤3</td>
<td>67-68-5</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>≥50 - ≤75</td>
<td>56-81-5</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.

Date of issue: 04/25/2019
## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<table>
<thead>
<tr>
<th>Event</th>
<th>2X Brilliant II QRT-PCR Low ROX Master Mix</th>
<th>RT/RNase Block Enzyme Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></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>
<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><strong>Inhalation</strong></td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, 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>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, 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><strong>Skin contact</strong></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>
<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><strong>Ingestion</strong></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.</td>
<td></td>
</tr>
</tbody>
</table>
Section 4. First aid measures

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.

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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 2X Brilliant II QRT-PCR Low ROX Master Mix
RT/RNase Block Enzyme Mixture
Causes eye irritation.

Inhalation : 2X Brilliant II QRT-PCR Low ROX Master Mix
RT/RNase Block Enzyme Mixture
No known significant effects or critical hazards.

Skin contact : 2X Brilliant II QRT-PCR Low ROX Master Mix
RT/RNase Block Enzyme Mixture
No known significant effects or critical hazards.

Ingestion : 2X Brilliant II QRT-PCR Low ROX Master Mix
RT/RNase Block Enzyme Mixture
No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : 2X Brilliant II QRT-PCR Low ROX Master Mix
RT/RNase Block Enzyme Mixture
Adverse symptoms may include the following:
irritation
watering
redness

Inhalation : 2X Brilliant II QRT-PCR Low ROX Master Mix
RT/RNase Block Enzyme Mixture
No specific data.

Skin contact : 2X Brilliant II QRT-PCR Low ROX Master Mix
RT/RNase Block Enzyme Mixture
No specific data.

Ingestion : 2X Brilliant II QRT-PCR Low ROX Master Mix
RT/RNase Block Enzyme Mixture
No specific data.

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Section 4. First aid measures

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

Notes to physician:
- **2X Brilliant II QRT-PCR Low ROX Master Mix**
  - Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- **RT/RNase Block Enzyme Mixture**
  - Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments:
- **2X Brilliant II QRT-PCR Low ROX Master Mix**
  - No specific treatment.
- **RT/RNase Block Enzyme Mixture**
  - No specific treatment.

Protection of first-aiders:
- **2X Brilliant II QRT-PCR Low ROX Master Mix**
  - No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- **RT/RNase Block Enzyme Mixture**
  - No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Notes to physician:
- **2X Brilliant II QRT-PCR Low ROX Master Mix**
  - Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- **RT/RNase Block Enzyme Mixture**
  - Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 5. Fire-fighting measures

5.1 Extinguishing media

**Suitable extinguishing media**
- **2X Brilliant II QRT-PCR Low ROX Master Mix**
  - Use an extinguishing agent suitable for the surrounding fire.
- **RT/RNase Block Enzyme Mixture**
  - Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**
- **2X Brilliant II QRT-PCR Low ROX Master Mix**
  - None known.
- **RT/RNase Block Enzyme Mixture**
  - None known.

5.2 Special hazards arising from the substance or mixture

**Specific hazards arising from the chemical**
- **2X Brilliant II QRT-PCR Low ROX Master Mix**
  - In a fire or if heated, a pressure increase will occur and the container may burst.
- **RT/RNase Block Enzyme Mixture**
  - In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products**
- **2X Brilliant II QRT-PCR Low ROX Master Mix**
  - Decomposition products may include the following materials:
    - carbon dioxide
    - carbon monoxide
    - sulfur oxides
- **RT/RNase Block Enzyme Mixture**
  - Decomposition products may include the following materials:
    - carbon dioxide
    - carbon monoxide

5.3 Advice for firefighters

**Special protective actions for fire-fighters**
- **2X Brilliant II QRT-PCR Low ROX 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.
- **RT/RNase Block Enzyme Mixture**
  - 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.
Section 5. Fire-fighting measures

**Special protective equipment for fire-fighters**

- 2X Brilliant II QRT-PCR Low ROX 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.

- RT/RNase Block Enzyme Mixture
  - 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

6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

- 2X Brilliant II QRT-PCR Low ROX 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- RT/RNase Block Enzyme Mixture
  - 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.

**For emergency responders**

- 2X Brilliant II QRT-PCR Low ROX Master Mix
  - 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".

- RT/RNase Block Enzyme Mixture
  - 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 II QRT-PCR Low ROX Master Mix
  - 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).

- RT/RNase Block Enzyme Mixture
  - 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

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## Section 6. Accidental release measures

### Methods for cleaning up
- **2X Brilliant II QRT-PCR Low ROX Master 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.

- **RT/RNase Block Enzyme Mixture**
  - 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
- **2X Brilliant II QRT-PCR Low ROX Master Mix**
  - 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.

- **RT/RNase Block Enzyme Mixture**
  - 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
- **2X Brilliant II QRT-PCR Low ROX Master Mix**
  - 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.

- **RT/RNase Block Enzyme Mixture**
  - 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
- **2X Brilliant II QRT-PCR Low ROX 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Section 7. Handling and storage

RT/RNase Block Enzyme Mixture
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)

Recommendations:
Industrial sector specific solutions:

2X Brilliant II QRT-PCR Low ROX Master Mix
Industrial applications, Professional applications.

RT/RNase Block Enzyme Mixture
Industrial applications, Professional applications.

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>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td>Glycerol</td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 10 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td>Polyethylene glycol</td>
<td>AIHA WEEL (United States, 5/2018). TWA: 10 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

RT/RNase Block Enzyme Mixture
Glycerol

OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction
OSHA PEL 1989 (United States, 3/1989). TWA: 10 mg/m³ 8 hours. Form: Total dust
OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction
OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust

8.2 Exposure controls

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

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Section 8. Exposure controls/personal protection

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.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: 2X Brilliant II QRT-PCR Low ROX Master Mix Liquid.
RT/RNase Block Enzyme Mixture Liquid.

Color: 2X Brilliant II QRT-PCR Low ROX Master Mix Not available.
RT/RNase Block Enzyme Mixture Not available.

Odor: 2X Brilliant II QRT-PCR Low ROX Master Mix Not available.
RT/RNase Block Enzyme Mixture Not available.

Odor threshold: 2X Brilliant II QRT-PCR Low ROX Master Mix Not available.
RT/RNase Block Enzyme Mixture Not available.

pH: 2X Brilliant II QRT-PCR Low ROX Master Mix Not available.
RT/RNase Block Enzyme Mixture 8
# Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>2X Brilliant II QRT-PCR Low ROX Master Mix</th>
<th>RT/RNase Block Enzyme Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in the following materials: cold water and hot water</td>
<td>Soluble in the following materials: cold water and hot water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

# Section 10. Stability and reactivity

## 10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

## 10.2 Chemical stability

The product is stable.

**Date of issue:** 04/25/2019
Section 10. Stability and reactivity

10.3 Possibility of hazardous reactions

- 2X Brilliant II QRT-PCR Low ROX Master Mix and RT/RNase Block Enzyme Mixture
  Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

- 2X Brilliant II QRT-PCR Low ROX Master Mix and RT/RNase Block Enzyme Mixture
  No specific data.

10.5 Incompatible materials

- 2X Brilliant II QRT-PCR Low ROX Master Mix and RT/RNase Block Enzyme Mixture
  May react or be incompatible with oxidizing materials.

10.6 Hazardous decomposition products

- 2X Brilliant II QRT-PCR Low ROX Master Mix and RT/RNase Block Enzyme Mixture
  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>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></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></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>14500 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></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>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>Eyes - 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>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyethylene glycol</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>24 hours 500 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>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>
</tbody>
</table>

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## Section 11. Toxicological information

<table>
<thead>
<tr>
<th>RT/RNase Block Enzyme Mixture</th>
<th>Skin - Mild irritant</th>
<th>Rabbit</th>
<th>-</th>
<th>24 hours 500 milligrams 100 milligrams</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams 100 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)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>Polyethylene glycol</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

<table>
<thead>
<tr>
<th>Name</th>
<th>Routes of entry anticipated: Oral, Dermal, Inhalation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
</tbody>
</table>

### Potential acute health effects

<table>
<thead>
<tr>
<th>Name</th>
<th>Routes of entry anticipated: Oral, Dermal, Inhalation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
</tbody>
</table>

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Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**
2X Brilliant II QRT-PCR Low ROX Master Mix
Adverse symptoms may include the following:
- irritation
- watering
- redness

RT/RNase Block Enzyme Mixture
Adverse symptoms may include the following:
- irritation
- watering
- redness

**Inhalation**
2X Brilliant II QRT-PCR Low ROX Master Mix
No specific data.

RT/RNase Block Enzyme Mixture
No specific data.

**Skin contact**
2X Brilliant II QRT-PCR Low ROX Master Mix
No specific data.

RT/RNase Block Enzyme Mixture
No specific data.

**Ingestion**
2X Brilliant II QRT-PCR Low ROX Master Mix
No specific data.

RT/RNase Block Enzyme Mixture
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 II QRT-PCR Low ROX Master Mix
No known significant effects or critical hazards.

RT/RNase Block Enzyme Mixture
No known significant effects or critical hazards.

**Carcinogenicity**
2X Brilliant II QRT-PCR Low ROX Master Mix
No known significant effects or critical hazards.

RT/RNase Block Enzyme Mixture
No known significant effects or critical hazards.

**Mutagenicity**
2X Brilliant II QRT-PCR Low ROX Master Mix
No known significant effects or critical hazards.

RT/RNase Block Enzyme Mixture
No known significant effects or critical hazards.

**Teratogenicity**
2X Brilliant II QRT-PCR Low ROX Master Mix
No known significant effects or critical hazards.

RT/RNase Block Enzyme Mixture
No known significant effects or critical hazards.

**Developmental effects**
2X Brilliant II QRT-PCR Low ROX Master Mix
No known significant effects or critical hazards.

RT/RNase Block Enzyme Mixture
No known significant effects or critical hazards.

**Fertility effects**
2X Brilliant II QRT-PCR Low ROX Master Mix
No known significant effects or critical hazards.

RT/RNase Block Enzyme Mixture
No known significant effects or critical hazards.

Numerical measures of toxicity

**Acute toxicity estimates**

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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 II QRT-PCR Low ROX Master Mix</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>12600</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Polyethylene glycol</td>
<td>28000</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>14500</td>
<td>40000</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>12600</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</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 II QRT-PCR Low ROX Master Mix</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td>Glycerol</td>
<td>Acute LC50 &gt;100000 µg/l Fresh water</td>
<td>Fish - Salmo salar - Parr</td>
<td>96 hours</td>
</tr>
<tr>
<td>Polyethylene glycol</td>
<td>Acute LC50 25000 ppm Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>Acute LC50 34000000 µg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 3323 µg/l Marine water</td>
<td>Algae - Nitzschia pungens</td>
<td>96 hours</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</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></td>
<td></td>
<td></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 II QRT-PCR Low ROX Master Mix</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>93 % - 30 days</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>93 % - 30 days</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion/Summary: Not available.

12.3 Bioaccumulative potential

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Section 12. Ecological information

<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 II QRT-PCR Low ROX Master Mix</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Glycerol</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Polyethylene glycol</td>
<td>-1.35</td>
<td>3.2</td>
<td>low</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>-1.35</td>
<td>3.16</td>
<td>low</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>-1.76</td>
<td>-</td>
<td>low</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. 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.

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Section 14. Transport information

Section 15. Regulatory information

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

U.S. Federal regulations

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

Clean Water Act (CWA) 311 : Edetic acid
Clean Water Act Section 112(b) Hazardous Air Pollutants (HAPs)

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : 2X Brilliant II QRT-PCR Low ROX Master Mix EYE IRRITATION - Category 2B
RT/RNase Block Enzyme Mixture EYE IRRITATION - Category 2B

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>≥10 - ≤25</td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td>Polyethylene glycol</td>
<td>≥10 - &lt;20</td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>≤3</td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td></td>
<td>FLAMMABLE LIQUIDS - Category 4</td>
</tr>
<tr>
<td>Glycerol</td>
<td>≥50 - ≤75</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-PROPAcETRIOL; DIMETHYL SULFOXIDE; METHANE, SULFINYLbis-
Pennsylvania : The following components are listed: 1,2,3-PROPAcETRIOL
California Prop. 65

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Section 15. Regulatory information

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 : All components are listed or exempted.
China : All components are listed or exempted.
Europe : Not determined.
Japan : Japan inventory (ENCS): Not determined.
        Japan inventory (ISHL): Not determined.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : Not determined.
Taiwan : All components are listed or exempted.
Thailand : Not determined.
Turkey : Not determined.
United States : All components are listed or exempted.
Viet Nam : Not determined.

Section 16. Other information

History

Date of issue : 04/25/2019
Date of previous issue : 10/27/2017
Version : 6

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

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Section 16. Other information

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X Brilliant II QRT-PCR Low ROX Master Mix</td>
<td>Calculation method</td>
</tr>
<tr>
<td>EYE IRRITATION - Category 2B</td>
<td></td>
</tr>
<tr>
<td>RT/RNase Block Enzyme Mixture</td>
<td>Calculation method</td>
</tr>
<tr>
<td>EYE IRRITATION - Category 2B</td>
<td></td>
</tr>
</tbody>
</table>

Notice to reader

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