

# SAFETY DATA SHEET



Brilliant II SYBR Green QRT-PCR High ROX Master Mix - 1-Step, Part Number 600836

## Section 1. Identification

### 1.1 Product identifier

**Product name** : Brilliant II SYBR Green QRT-PCR High ROX Master Mix - 1-Step, Part Number 600836  
**Part no. (chemical kit)** : 600836  
**Part no.** : 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix 600836-51  
 RT/RNase Block Enzyme Mixture 600825-52  
**Validation date** : 8/29/2021

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Material uses** : Analytical reagent.  
 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix 2 × 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** : 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture  
 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

**2X Brilliant II SYBR® QRT-PCR High ROX Master Mix**  
 H320 EYE IRRITATION - Category 2B  
**RT/RNase Block Enzyme Mixture**  
 H320 EYE IRRITATION - Category 2B

### 2.2 GHS label elements

**Signal word** : 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture Warning  
 Warning  
**Hazard statements** : 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix H320 - Causes eye irritation.  
 RT/RNase Block Enzyme Mixture H320 - Causes eye irritation.

### Precautionary statements

## Section 2. Hazards identification

<b>Prevention</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	Not applicable. Not applicable.
<b>Response</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix  RT/RNase Block Enzyme Mixture	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. 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.
<b>Storage</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	Not applicable. Not applicable.
<b>Disposal</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	Not applicable. Not applicable.
<b>Supplemental label elements</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	None known. None known.
<b>2.3 Other hazards</b>		
<b>Hazards not otherwise classified</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	None known. None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	Mixture Mixture
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Ingredient name	%	CAS number
<b>2X Brilliant II SYBR® QRT-PCR High ROX Master Mix</b>		
Glycerol	≥10 - ≤25	56-81-5
Dimethyl sulfoxide	≤10	67-68-5
Magnesium chloride	<0.25	7786-30-3
<b>RT/RNase Block Enzyme Mixture</b>		
Glycerol	≥50 - ≤75	56-81-5

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

<b>Eye contact</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	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.
	RT/RNase Block Enzyme Mixture	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.
<b>Inhalation</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	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.
	RT/RNase Block Enzyme Mixture	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.
<b>Skin contact</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	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.
	RT/RNase Block Enzyme Mixture	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.
<b>Ingestion</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Wash out mouth with water. Remove dentures if any. 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

## Section 4. First aid measures

RT/RNase Block Enzyme Mixture

tight clothing such as a collar, tie, belt or waistband. Wash out mouth with water. Remove dentures if any. 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

<b>Eye contact</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	Causes eye irritation. Causes eye irritation.
<b>Inhalation</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix  RT/RNase Block Enzyme Mixture	Adverse symptoms may include the following:  irritation watering redness Adverse symptoms may include the following: irritation watering redness
<b>Inhalation</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	No specific data. No specific data.
<b>Skin contact</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	No specific data. No specific data.
<b>Ingestion</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	No specific data. No specific data.

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

## Section 4. First aid measures

<b>Notes to physician</b>	: 2X Brilliant II SYBR® QRT-PCR High 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.
<b>Specific treatments</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	No specific treatment.
<b>Protection of first-aiders</b>	: 2X Brilliant II SYBR® QRT-PCR High 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.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	None known. None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Specific hazards arising from the chemical</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix  RT/RNase Block Enzyme Mixture	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix  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. 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.
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## Section 5. Fire-fighting measures

<b>Special protective equipment for fire-fighters</b>	: 2X Brilliant II SYBR® QRT-PCR High 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

<b>For non-emergency personnel</b>	: 2X Brilliant II SYBR® QRT-PCR High 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.
<b>For emergency responders</b>	: 2X Brilliant II SYBR® QRT-PCR High 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 SYBR® QRT-PCR High 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

<b>Methods for cleaning up</b>	: 2X Brilliant II SYBR® QRT-PCR High 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

## Section 6. Accidental release measures

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

<b>Protective measures</b>	: 2X Brilliant II SYBR® QRT-PCR High 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.
<b>Advice on general occupational hygiene</b>	: 2X Brilliant II SYBR® QRT-PCR High 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.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	: 2X Brilliant II SYBR® QRT-PCR High 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.
	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

## Section 7. Handling and storage

containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

<b>Recommendations</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	Industrial applications, Professional applications. Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: <input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture	Not available. Not available.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR High ROX Master Mix	<p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust</p> <p><b>OSHA PEL (United States, 5/2018).</b> TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust</p> <p><b>OARS WEEL (United States, 1/2021).</b> TWA: 250 ppm 8 hours.</p> <p>None.</p>
Glycerol	
Dimethyl sulfoxide	
Magnesium chloride	
<b>RT/RNase Block Enzyme Mixture</b>	<p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust</p> <p><b>OSHA PEL (United States, 5/2018).</b> TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust</p>
Glycerol	

### 8.2 Exposure controls

<b>Appropriate engineering controls</b>	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
<b>Environmental exposure controls</b>	: 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

<b>Hygiene measures</b>	: 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.
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## Section 8. Exposure controls/personal protection

- 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

<b>Physical state</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Liquid.
	RT/RNase Block Enzyme Mixture	Liquid.
<b>Color</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Odor</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Odor threshold</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>pH</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	8
<b>Melting point</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Boiling point</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Flash point</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Evaporation rate</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.

## Section 9. Physical and chemical properties

<b>Flammability (solid, gas)</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not applicable.
	RT/RNase Block Enzyme Mixture	Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Vapor pressure</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Vapor density</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Relative density</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Solubility</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Soluble in the following materials: cold water and hot water.
	RT/RNase Block Enzyme Mixture	Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: <del>2</del> X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not applicable.
	RT/RNase Block Enzyme Mixture	Not applicable.
<b>Auto-ignition temperature</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Decomposition temperature</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.
<b>Viscosity</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Not available.
	RT/RNase Block Enzyme Mixture	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	No specific test data related to reactivity available for this product or its ingredients.
	RT/RNase Block Enzyme Mixture	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	The product is stable.
	RT/RNase Block Enzyme Mixture	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	RT/RNase Block Enzyme Mixture	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	No specific data.
	RT/RNase Block Enzyme Mixture	No specific data.
<b>10.5 Incompatible materials</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	May react or be incompatible with oxidizing materials.
	RT/RNase Block Enzyme Mixture	May react or be incompatible with oxidizing materials.

## Section 10. Stability and reactivity

<b>10.6 Hazardous decomposition products</b>	: 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	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

Product/ingredient name	Result	Species	Dose	Exposure
<b>2X Brilliant II SYBR® QRT-PCR High ROX Master Mix</b>				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Dimethyl sulfoxide	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-
Magnesium chloride	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-
<b>RT/RNase Block Enzyme Mixture</b>				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>2X Brilliant II SYBR® QRT-PCR High ROX Master Mix</b>					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Dimethyl sulfoxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	100 mg	-
<b>RT/RNase Block Enzyme Mixture</b>					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

#### Sensitization

Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

#### Reproductive toxicity

**Conclusion/Summary** : Not available.

## Section 11. Toxicological information

### 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 II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture  
Routes of entry anticipated: Oral, Dermal, Inhalation.  
Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

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

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

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

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

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

**Eye contact** : 2X Brilliant II SYBR® QRT-PCR High 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 SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture  
No specific data.  
No specific data.

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

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

## Section 11. Toxicological information

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

**General** : 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture No known significant effects or critical hazards.

**Carcinogenicity** : 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture No known significant effects or critical hazards.

**Mutagenicity** : 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture No known significant effects or critical hazards.

**Reproductive toxicity** :  Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
<input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR High ROX Master Mix					
Glycerol	12600	N/A	N/A	N/A	N/A
Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A
Magnesium chloride	2800	2500	N/A	N/A	N/A
<b>RT/RNase Block Enzyme Mixture</b>					
Glycerol	12600	N/A	N/A	N/A	N/A

**Other information** :  Brilliant II SYBR® QRT-PCR High ROX Master Mix RT/RNase Block Enzyme Mixture Not available.  
Adverse symptoms may include the following: May cause skin sensitization.

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR High ROX Master Mix			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Dimethyl sulfoxide	Acute LC50 25000 ppm Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 34000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 100 ul/L Marine water	Algae - Ulva lactuca	72 hours
	Chronic NOEC 100 ul/L Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	21 days
Magnesium chloride	Acute EC50 >100 mg/l Fresh water	Algae - Desmodesmus	72 hours

## Section 12. Ecological information

RT/RNase Block Enzyme Mixture Glycerol	Acute EC50 180000 µg/l Fresh water	subspicatus Crustaceans - Eudiaptomus padanus ssp. padanus - Adult	48 hours
	Acute IC50 6.8 mg/l Fresh water	Aquatic plants - Lemna aquinoctialis	96 hours
RT/RNase Block Enzyme Mixture Glycerol	Acute LC50 32000 µg/l Fresh water	Daphnia - Daphnia hyalina - Adult	48 hours
	Acute LC50 2120 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute NOEC 100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Chronic NOEC 0.1 mg/l Fresh water	Fish - Cyprinus carpio	35 days
	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2X Brilliant II SYBR® QRT-PCR High ROX Master Mix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Dimethyl sulfoxide	OECD 301D Ready Biodegradability - Closed Bottle Test	31 % - Not readily - 28 days	-	-
RT/RNase Block Enzyme Mixture Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2X Brilliant II SYBR® QRT-PCR High ROX Master Mix Dimethyl sulfoxide	-	-	Not readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
2X Brilliant II SYBR® QRT-PCR High ROX Master Mix Glycerol	-1.76	-	low
Dimethyl sulfoxide	-1.35	3.16	low
RT/RNase Block Enzyme Mixture Glycerol	-1.76	-	low

### 12.4 Mobility in soil

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

## Section 12. Ecological information

**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 IMO instruments** : 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

**Clean Air Act Section 602 Class I Substances** : Not listed

## Section 15. Regulatory information

**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** : 2X Brilliant II SYBR® QRT-PCR High ROX Master Mix EYE IRRITATION - Category 2B  
RT/RNase Block Enzyme Mixture EYE IRRITATION - Category 2B

#### Composition/information on ingredients

Name	%	Classification
<b>2X Brilliant II SYBR® QRT-PCR High ROX Master Mix</b>		
Glycerol	≥10 - ≤25	EYE IRRITATION - Category 2B
Dimethyl sulfoxide	≤10	FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2B
<b>RT/RNase Block Enzyme Mixture</b>		
Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B

### 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

### 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.

## Section 15. Regulatory information

<b>Canada</b>	: All components are listed or exempted.
<b>China</b>	: All components are listed or exempted.
<b>Europe</b>	: Not determined.
<b>Japan</b>	: <b>Japan inventory (CSCL):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: All components are listed or exempted.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are active or exempted.
<b>Viet Nam</b>	: Not determined.

## Section 16. Other information

### History

<b>Date of issue</b>	: 08/29/2021
<b>Date of previous issue</b>	: 04/25/2019
<b>Version</b>	: 7

### 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
: MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
: N/A = Not available
: UN = United Nations

### Procedure used to derive the classification

Classification	Justification
<b>2X Brilliant II SYBR® QRT-PCR High ROX Master Mix</b> EYE IRRITATION - Category 2B	Calculation method
<b>RT/RNase Block Enzyme Mixture</b> EYE IRRITATION - Category 2B	Calculation method

Indicates information that has changed from previously issued version.

### Notice to reader

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