

# SAFETY DATA SHEET



Brilliant II QRT-PCR Master Mix - 1-Step - 10-pack, Part Number 600818

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

**Product name** : Brilliant II QRT-PCR Master Mix - 1-Step - 10-pack, Part Number 600818  
**Part no. (chemical kit)** : 600818  
**Part no.** : 2X Brilliant II QRT-PCR Master Mix 600809-51  
 Reference Dye 600530-53  
 RT/RNase Block Enzyme Mixture 600809-52

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

**Identified uses** : Analytical reagent.  
 2X Brilliant II QRT-PCR Master Mix 20 x 2.5 ml  
 Reference Dye 0.1 ml (100 µl 1 mM)  
 RT/RNase Block Enzyme Mixture 0.4 ml  
**Uses advised against** : None known.

**1.3 Details of the supplier of the safety data sheet**

Agilent Technologies Deutschland GmbH  
 Hewlett-Packard-Str. 8  
 76337 Waldbronn  
 Germany  
 0800 603 1000  
**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

**1.4 Emergency telephone number**

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +(44)-870-8200418

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Product definition** : 2X Brilliant II QRT-PCR Mixture  
 Master Mix  
 Reference Dye Mixture  
 RT/RNase Block Mixture  
 Enzyme Mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Not classified.

2X Brilliant II QRT-PCR Master Mix The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.  
 Reference Dye The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.  
 RT/RNase Block Enzyme Mixture The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

**Ingredients of unknown toxicity** : 2X Brilliant II QRT-PCR Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%  
 Master Mix  
 Reference Dye Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%  
 Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%  
 RT/RNase Block Enzyme Mixture Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%

## SECTION 2: Hazards identification

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

<b>Signal word</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	No signal word. No signal word. No signal word.
<b>Hazard statements</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

### Precautionary statements

<b>Prevention</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
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<b>Response</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
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<b>Storage</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
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<b>Disposal</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
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<b>Supplemental label elements</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
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<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
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### Special packaging requirements

<b>Tactile warning of danger</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
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### 2.3 Other hazards

## SECTION 2: Hazards identification

<b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	: 2X Brilliant II QRT-PCR Master Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	Reference Dye	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	RT/RNase Block Enzyme Mixture	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
<b>Other hazards which do not result in classification</b>	: 2X Brilliant II QRT-PCR Master Mix	None known.
	Reference Dye	None known.
	RT/RNase Block Enzyme Mixture	None known.

## SECTION 3: Composition/information on ingredients

<b>3.1 Substances</b>	: 2X Brilliant II QRT-PCR Master Mix	Mixture
	Reference Dye	Mixture
	RT/RNase Block Enzyme Mixture	Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
<b>2X Brilliant II QRT-PCR Master Mix</b> glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	-	[1]
<b>RT/RNase Block Enzyme Mixture</b> glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.  <b>See Section 16 for the full text of the H statements declared above.</b>	-	[1]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

### Type

2X Brilliant II QRT-PCR Master Mix	[1] Substance with a workplace exposure limit
RT/RNase Block Enzyme Mixture	[1] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

<b>Eye contact</b>	: 2X Brilliant II QRT-PCR Master Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Reference Dye	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.
	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. Get medical attention if irritation occurs.

## SECTION 4: First aid measures

<b>Inhalation</b>	: 2X Brilliant II QRT-PCR Master Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Reference Dye	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	RT/RNase Block Enzyme Mixture	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
<b>Skin contact</b>	: 2X Brilliant II QRT-PCR Master Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Reference Dye	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	RT/RNase Block Enzyme Mixture	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: 2X Brilliant II QRT-PCR Master Mix	Wash out mouth with water. 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.
	Reference Dye	Wash out mouth with water. 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.
	RT/RNase Block Enzyme Mixture	Wash out mouth with water. 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.
<b>Protection of first-aiders</b>	: 2X Brilliant II QRT-PCR Master Mix	No action shall be taken involving any personal risk or without suitable training.
	Reference Dye	No action shall be taken involving any personal risk or without suitable training.
	RT/RNase Block Enzyme Mixture	No action shall be taken involving any personal risk or without suitable training.

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

#### Potential acute health effects

<b>Eye contact</b>	: 2X Brilliant II QRT-PCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Enzyme Mixture	
<b>Inhalation</b>	: 2X Brilliant II QRT-PCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Enzyme Mixture	
<b>Skin contact</b>	: 2X Brilliant II QRT-PCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Enzyme Mixture	

## SECTION 4: First aid measures

<b>Ingestion</b>	: 2X Brilliant II QRT-PCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Enzyme Mixture	

### Over-exposure signs/symptoms

<b>Eye contact</b>	: 2X Brilliant II QRT-PCR Master Mix	No specific data.
	Reference Dye	No specific data.
	RT/RNase Block	No specific data.
	Enzyme Mixture	

<b>Inhalation</b>	: 2X Brilliant II QRT-PCR Master Mix	No specific data.
	Reference Dye	No specific data.
	RT/RNase Block	No specific data.
	Enzyme Mixture	

<b>Skin contact</b>	: 2X Brilliant II QRT-PCR Master Mix	No specific data.
	Reference Dye	No specific data.
	RT/RNase Block	No specific data.
	Enzyme Mixture	

<b>Ingestion</b>	: 2X Brilliant II QRT-PCR Master Mix	No specific data.
	Reference Dye	No specific data.
	RT/RNase Block	No specific data.
	Enzyme Mixture	

### 4.3 Indication of any immediate medical attention and special treatment needed

<b>Notes to physician</b>	: 2X Brilliant II QRT-PCR Master Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Reference Dye	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	RT/RNase Block	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Enzyme Mixture	

<b>Specific treatments</b>	: 2X Brilliant II QRT-PCR Master Mix	No specific treatment.
	Reference Dye	No specific treatment.
	RT/RNase Block	No specific treatment.
	Enzyme Mixture	

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: 2X Brilliant II QRT-PCR Master Mix	Use an extinguishing agent suitable for the surrounding fire.
	Reference Dye	Use an extinguishing agent suitable for the surrounding fire.
	RT/RNase Block	Use an extinguishing agent suitable for the surrounding fire.
	Enzyme Mixture	

<b>Unsuitable extinguishing media</b>	: 2X Brilliant II QRT-PCR Master Mix	None known.
	Reference Dye	None known.
	RT/RNase Block	None known.
	Enzyme Mixture	

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

**SECTION 5: Firefighting measures**

<b>Hazards from the substance or mixture</b>	: 2X Brilliant II QRT-PCR Master Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	Reference Dye	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous combustion products</b>	RT/RNase Block Enzyme Mixture	In a fire or if heated, a pressure increase will occur and the container may burst.
	: 2X Brilliant II QRT-PCR Master Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
	Reference Dye	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	RT/RNase Block Enzyme Mixture	Decomposition products may include the following materials: carbon dioxide carbon monoxide

**5.3 Advice for firefighters**

<b>Special precautions for fire-fighters</b>	: 2X Brilliant II QRT-PCR 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.
	Reference Dye	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	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.
<b>Special protective equipment for fire-fighters</b>	: 2X Brilliant II QRT-PCR 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Reference Dye	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

<b>For non-emergency personnel</b>	: 2X Brilliant II QRT-PCR Master Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	Reference Dye	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on

**SECTION 6: Accidental release measures**

	RT/RNase Block Enzyme Mixture	appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: 2X Brilliant II QRT-PCR Master Mix	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Reference Dye	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	RT/RNase Block Enzyme Mixture	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
<b>6.2 Environmental precautions</b>	: 2X Brilliant II QRT-PCR Master Mix	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Reference Dye	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	RT/RNase Block Enzyme Mixture	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b>6.3 Methods and material for containment and cleaning up</b>		
<b>Methods for cleaning up</b>	: 2X Brilliant II QRT-PCR 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.
	Reference Dye	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	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.
<b>6.4 Reference to other sections</b>	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.	

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

<b>Protective measures</b>	: 2X Brilliant II QRT-PCR Master Mix	Put on appropriate personal protective equipment (see Section 8).
	Reference Dye	Put on appropriate personal protective equipment (see Section 8).
	RT/RNase Block Enzyme Mixture	Put on appropriate personal protective equipment (see Section 8).

## SECTION 7: Handling and storage

<b>Advice on general occupational hygiene</b>	: 2X Brilliant II QRT-PCR 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.
	Reference Dye	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	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

<b>Storage</b>	: 2X Brilliant II QRT-PCR Master Mix	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	Reference Dye	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	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 unlabelled 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 QRT-PCR Master Mix	Industrial applications, Professional applications.
	Reference Dye	Industrial applications, Professional applications.
	RT/RNase Block Enzyme Mixture	Industrial applications, Professional applications.

## SECTION 7: Handling and storage

<b>Industrial sector specific solutions</b>	<b>2X Brilliant II QRT-PCR Master Mix</b>	Not available.
	Reference Dye	Not available.
	RT/RNase Block	Not available.
	Enzyme Mixture	

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
2X Brilliant II QRT-PCR Master Mix Glycerol	<b>NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)</b> OELV: 10 mg/m <sup>3</sup> 8 hours. Form: mist
RT/RNase Block Enzyme Mixture Glycerol	<b>NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)</b> OELV: 10 mg/m <sup>3</sup> 8 hours. Form: mist

#### Biological exposure indices

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

No DNELs/DMELs available.

#### PNECs

No PNECs available

### 8.2 Exposure controls

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

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

#### Skin protection

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

## SECTION 8: Exposure controls/personal protection

<b>Body protection</b>	: 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.
<b>Other skin protection</b>	: 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.
<b>Respiratory protection</b>	: 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.
<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.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Liquid. Liquid. Liquid.
<b>Colour</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Odour</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Odour threshold</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Melting point/freezing point</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Initial boiling point and boiling range</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Flammability</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.

**SECTION 9: Physical and chemical properties**

<b>Flash point</b>	:	<b>Closed cup</b>		<b>Open cup</b>		
		<b>Ingredient name</b>	<b>°C</b>	<b>Method</b>	<b>°C</b>	<b>Method</b>
		<b>2X Brilliant II QRT-PCR Master Mix</b>				
		dimethyl sulfoxide	87	ASTM D 93	87	-
		Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	171 to 235	-	199 to 238	-
		<b>RT/RNase Block Enzyme Mixture</b>				
		glycerol	-	-	177	-

<b>Auto-ignition temperature</b>	:	<b>Ingredient name</b>	<b>°C</b>	<b>Method</b>
		<b>2X Brilliant II QRT-PCR Master Mix</b>		
		dimethyl sulfoxide	300 to 302	-
		Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	360	-
		<b>RT/RNase Block Enzyme Mixture</b>		
		glycerol	370	-

**Decomposition temperature** : 2X Brilliant II QRT-PCR Master Mix Not available.  
 Reference Dye Not available.  
 RT/RNase Block Enzyme Mixture Not available.

**pH** : 2X Brilliant II QRT-PCR Master Mix 8  
 Reference Dye 8  
 RT/RNase Block Enzyme Mixture 8

**Viscosity** : 2X Brilliant II QRT-PCR Master Mix Not available.  
 Reference Dye Not available.  
 RT/RNase Block Enzyme Mixture Not available.

<b>Solubility(ies)</b>	:	<b>Media</b>	<b>Result</b>
		<b>2X Brilliant II QRT-PCR Master Mix</b>	
		water	Soluble
		<b>Reference Dye</b>	
		water	Soluble
		<b>RT/RNase Block Enzyme Mixture</b>	
		water	Soluble

**Partition coefficient: n-octanol/water** : 2X Brilliant II QRT-PCR Master Mix Not applicable.  
 Reference Dye Not applicable.  
 RT/RNase Block Enzyme Mixture Not applicable.

**Vapour pressure** :

**SECTION 9: Physical and chemical properties**

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<b>2X Brilliant II QRT-PCR Master Mix</b>						
water	17.5	2.3	-	92.258	12.3	-
dimethyl sulfoxide	0.42	0.056	EU A.4	-	-	-
<b>Reference Dye</b>						
water	17.5	2.3	-	92.258	12.3	-
<b>RT/RNase Block Enzyme Mixture</b>						
water	17.5	2.3	-	92.258	12.3	-
glycerol	0.000075	0.00001	-	0.0025	0.00033	-

**Evaporation rate** : 2X Brilliant II QRT-PCR Master Mix Not available.  
 Reference Dye Not available.  
 RT/RNase Block Enzyme Mixture Not available.

**Relative density** : 2X Brilliant II QRT-PCR Master Mix Not available.  
 Reference Dye Not available.  
 RT/RNase Block Enzyme Mixture Not available.

**Vapour density** : 2X Brilliant II QRT-PCR Master Mix Not available.  
 Reference Dye Not available.  
 RT/RNase Block Enzyme Mixture Not available.

**Explosive properties** : 2X Brilliant II QRT-PCR Master Mix Not available.  
 Reference Dye Not available.  
 RT/RNase Block Enzyme Mixture Not available.

**Oxidising properties** : 2X Brilliant II QRT-PCR Master Mix Not available.  
 Reference Dye Not available.  
 RT/RNase Block Enzyme Mixture Not available.

**Particle characteristics**

**Median particle size** : 2X Brilliant II QRT-PCR Master Mix Not applicable.  
 Reference Dye Not applicable.  
 RT/RNase Block Enzyme Mixture Not applicable.

**9.2 Other information**

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye  RT/RNase Block Enzyme Mixture	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	The product is stable.  The product is stable. The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye  RT/RNase Block Enzyme Mixture	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	No specific data.  No specific data. No specific data.
<b>10.5 Incompatible materials</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	May react or be incompatible with oxidising materials.  May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
<b>10.6 Hazardous decomposition products</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye  RT/RNase Block Enzyme Mixture	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. 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

Not available.

#### Acute toxicity estimates

N/A

#### Irritation/Corrosion

**Conclusion/Summary** : Not available.

#### Sensitiser

**Conclusion/Summary** : 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 likely routes of exposure** : 2X Brilliant II QRT-PCR Master Mix Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.  
Reference Dye Not available.  
RT/RNase Block Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.  
Enzyme Mixture

### Potential acute health effects

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

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

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

**Eye contact** : 2X Brilliant II QRT-PCR Master Mix No known significant effects or critical hazards.  
Reference Dye No known significant effects or critical hazards.  
RT/RNase Block No known significant effects or critical hazards.  
Enzyme Mixture

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

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

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

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

**Eye contact** : 2X Brilliant II QRT-PCR Master Mix No specific data.  
Reference Dye No specific data.  
RT/RNase Block No specific data.  
Enzyme Mixture

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

## SECTION 11: Toxicological information

### 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

**Conclusion/Summary** : Not available.

<b>General</b>	: 2X Brilliant II QRT-PCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Enzyme Mixture	

<b>Carcinogenicity</b>	: 2X Brilliant II QRT-PCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Enzyme Mixture	

<b>Mutagenicity</b>	: 2X Brilliant II QRT-PCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Enzyme Mixture	

<b>Reproductive toxicity</b>	: 2X Brilliant II QRT-PCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Enzyme Mixture	

## 11.2 Information on other hazards

### 11.2.1 Endocrine disrupting properties

Not available.

### 11.2.2 Other information

RT/RNase Block Enzyme Mixture Adverse symptoms may include the following: May cause skin sensitisation.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

Not available.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

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

**Mobility** : Not available.

## SECTION 12: Ecological information

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

### 12.6 Endocrine disrupting properties

Not available.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

### Additional information

**14.6 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.

## SECTION 14: Transport information

14.7 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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

##### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

<b>Label</b>	: 2X Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
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#### Other EU regulations

##### Ozone depleting substances (1005/2009/EU)

Not listed.

##### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

##### Persistent Organic Pollutants

Not listed.

##### Seveso Directive

This product is not controlled under the Seveso Directive.

#### 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

<b>Australia</b>	: Not determined.
<b>Canada</b>	: Not determined.
<b>China</b>	: Not determined.
<b>Eurasian Economic Union</b>	: <b>Russian Federation inventory</b> : All components are listed or exempted.
<b>Japan</b>	: <b>Japan inventory (CSCL)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.

## SECTION 15: Regulatory information

<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: Not determined.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.
<b>Viet Nam</b>	: Not determined.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

### Full text of abbreviated H statements

Not applicable.

### Full text of classifications [CLP/GHS]

Not applicable.

**Date of issue/ Date of revision** : 06/03/2024

**Date of previous issue** : No previous validation

**Version** : 1

### Notice to reader

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