

# 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

<b>Product name</b>	: Brilliant II QRT-PCR Master Mix - 1-Step - 10-pack, Part Number 600818		
<b>Part no. (chemical kit)</b>	: 600818		
<b>Part no.</b>	: 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

<b>Identified uses</b>	: <input type="checkbox"/> Analytical reagent.	
	<input checked="" type="checkbox"/> 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
<b>Uses advised against</b>	: None known.	

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

Agilent Technologies LDA UK Ltd.  
 5500 Lakeside Cheadle Royal Business Park,  
 Cheadle, Cheshire, SK8 3GR  
 United Kingdom  
 Tel: +44 (0) 345 712 5292  
**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

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

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

Not classified.

<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
Reference Dye	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
RT/RNase Block Enzyme Mixture	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

## SECTION 2: Hazards identification

<b>Ingredients of unknown toxicity</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
	: Reference Dye	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
	: RT/RNase Block Enzyme Mixture	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
		Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%

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>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	No signal word.
	: Reference Dye	No signal word.
	: RT/RNase Block Enzyme Mixture	No signal word.
<b>Hazard statements</b>	: <input checked="" type="checkbox"/> 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 Enzyme Mixture	No known significant effects or critical hazards.

### Precautionary statements

<b>Prevention</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Not applicable.
	: Reference Dye	Not applicable.
	: RT/RNase Block Enzyme Mixture	Not applicable.
<b>Response</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Not applicable.
	: Reference Dye	Not applicable.
	: RT/RNase Block Enzyme Mixture	Not applicable.
<b>Storage</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Not applicable.
	: Reference Dye	Not applicable.
	: RT/RNase Block Enzyme Mixture	Not applicable.
<b>Disposal</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Not applicable.
	: Reference Dye	Not applicable.
	: RT/RNase Block Enzyme Mixture	Not applicable.
<b>Supplemental label elements</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Safety data sheet available on request.
	: Reference Dye	Not applicable.
	: RT/RNase Block Enzyme Mixture	Safety data sheet available on request.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Not applicable.
	: Reference Dye	Not applicable.
	: RT/RNase Block Enzyme Mixture	Not applicable.

### Special packaging requirements

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

## SECTION 2: Hazards identification

<b>Containers to be fitted with child-resistant fastenings</b>	<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Not applicable.
	Reference Dye	Not applicable.
	RT/RNase Block	Not applicable.
	Enzyme Mixture	
<b>Tactile warning of danger</b>	<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Not applicable.
	Reference Dye	Not applicable.
	RT/RNase Block	Not applicable.
	Enzyme Mixture	

### 2.3 Other hazards

<b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	<input checked="" type="checkbox"/> 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	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	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>	<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	None known.
	Reference Dye	None known.
	RT/RNase Block	None known.
	Enzyme Mixture	

## 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	Type
<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[1]
RT/RNase Block Enzyme Mixture Glycerol	UK (GB) REACH #: Annex V 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

<input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> 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.
<b>Inhalation</b>	: <input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> 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

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	No specific data.
	Reference Dye	No specific data.
	RT/RNase Block Enzyme Mixture	No specific data.

## SECTION 4: First aid measures

<b>Inhalation</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	No specific data. No specific data. No specific data.
<b>Skin contact</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	No specific data. No specific data. No specific data.
<b>Ingestion</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	No specific data. No specific data. No specific data.

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

<b>Notes to physician</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye  RT/RNase Block Enzyme Mixture	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	No specific treatment. No specific treatment. No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	None known. None known. None known.

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

<b>Hazards from the substance or mixture</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye  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. In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous combustion products</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix  Reference Dye	Decomposition products may include the following materials:  carbon dioxide carbon monoxide sulfur oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds

**SECTION 5: Firefighting measures**

RT/RNase Block Enzyme Mixture	metal oxide/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>	: <input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> 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.
	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.
	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>	: <input checked="" type="checkbox"/> 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 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 spilt material. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: <input checked="" type="checkbox"/> 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".

## SECTION 6: Accidental release measures

<b>6.2 Environmental precautions</b>	<b>:</b> <input checked="" type="checkbox"/> 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).

### 6.3 Methods and material for containment and cleaning up

<b>6.3 Methods and material for containment and cleaning up</b>	<b>Methods for cleaning up</b> <b>:</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>	<b>:</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>	<b>:</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).
<b>Advice on general occupational hygiene</b>	<b>:</b> <input checked="" type="checkbox"/> 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.

## SECTION 7: Handling and storage

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

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist
RT/RNase Block Enzyme Mixture Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist

#### Biological exposure indices

No exposure indices known.

## SECTION 8: Exposure controls/personal protection

**Recommended monitoring procedures** : Reference should be made to appropriate monitoring standards. 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.

**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.

**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.

## 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

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

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

## SECTION 9: Physical and chemical properties

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

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

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

**Initial boiling point and boiling range** : 2X Brilliant II QRT-PCR Master Mix Not available.  
Reference Dye Not available.  
RT/RNase Block Not available.  
Enzyme Mixture

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

**Upper/lower flammability or explosive limits** : 2X Brilliant II QRT-PCR Master Mix Not available.  
Reference Dye Not available.  
RT/RNase Block Not available.  
Enzyme Mixture

Flash point	Ingredient name	Closed cup		Open cup	
		°C	Method	°C	Method
	<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	-

Auto-ignition temperature	Ingredient name	°C	Method
	<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 Not available.  
Enzyme Mixture

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

**SECTION 9: Physical and chemical properties**

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

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

<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 Not applicable.  
 Master Mix  
 Reference Dye Not applicable.  
 RT/RNase Block Not applicable.  
 Enzyme Mixture

<b>Vapour pressure</b>	<b>Ingredient name</b>	<b>Vapour Pressure at 20°C</b>			<b>Vapour pressure at 50°C</b>		
		<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>	<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>
	<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 Not available.  
 Master Mix  
 Reference Dye Not available.  
 RT/RNase Block Not available.  
 Enzyme Mixture

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

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

## SECTION 9: Physical and chemical properties

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

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

### Particle characteristics

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

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** :  Brilliant II QRT-PCR Master Mix No specific test data related to reactivity available for this product or its ingredients.  
Reference Dye No specific test data related to reactivity available for this product or its ingredients.  
RT/RNase Block No specific test data related to reactivity available for this product or its ingredients.  
Enzyme Mixture

**10.2 Chemical stability** :  Brilliant II QRT-PCR Master Mix The product is stable.  
Reference Dye The product is stable.  
RT/RNase Block The product is stable.  
Enzyme Mixture

**10.3 Possibility of hazardous reactions** :  Brilliant II QRT-PCR Master Mix Under normal conditions of storage and use, hazardous reactions will not occur.  
Reference Dye Under normal conditions of storage and use, hazardous reactions will not occur.  
RT/RNase Block Under normal conditions of storage and use, hazardous reactions will not occur.  
Enzyme Mixture

**10.4 Conditions to avoid** :  Brilliant II QRT-PCR Master Mix No specific data.  
Reference Dye No specific data.  
RT/RNase Block No specific data.  
Enzyme Mixture

**10.5 Incompatible materials** :  Brilliant II QRT-PCR Master Mix May react or be incompatible with oxidising materials.  
Reference Dye May react or be incompatible with oxidising materials.  
RT/RNase Block May react or be incompatible with oxidising materials.  
Enzyme Mixture

**10.6 Hazardous decomposition products** :  Brilliant II QRT-PCR Master Mix Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
Reference Dye Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
RT/RNase Block Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
Enzyme Mixture

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Glycerol	LD50 Oral	Rat	12600 mg/kg	-
RT/RNase Block Enzyme Mixture Glycerol	LD50 Oral	Rat	12600 mg/kg	-

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Glycerol	12600	N/A	N/A	N/A	N/A
RT/RNase Block Enzyme Mixture Glycerol	12600	N/A	N/A	N/A	N/A

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
RT/RNase Block Enzyme Mixture Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

**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.

#### 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.

## SECTION 11: Toxicological information

<b>Information on likely routes of exposure</b>	: <input checked="" type="checkbox"/> 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

<b>Inhalation</b>	: <input checked="" type="checkbox"/> 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>Ingestion</b>	: <input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> 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>Eye contact</b>	: <input checked="" type="checkbox"/> 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

<b>Inhalation</b>	: <input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	No specific data.
	Reference Dye	No specific data.
	RT/RNase Block	No specific data.
	Enzyme Mixture	
<b>Eye contact</b>	: <input checked="" type="checkbox"/> 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

#### 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.

## SECTION 11: Toxicological information

### Potential chronic health effects

<b>Conclusion/Summary</b>	: Not available.	
<b>General</b>	: <input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> 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>	: <input checked="" type="checkbox"/> 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>Other information</b>	: <input checked="" type="checkbox"/> RT/RNase Block Enzyme Mixture	Adverse symptoms may include the following: May cause skin sensitisation.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours
RT/RNase Block Enzyme Mixture Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
RT/RNase Block Enzyme Mixture Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

**Conclusion/Summary** : Not available.

### 12.3 Bioaccumulative potential

## SECTION 12: Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Glycerol	-1.76	-	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.

**Mobility** : Not available.

### 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 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
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-
<b>14.4 Packing group</b>	-	-	-

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

## SECTION 14: Transport information

<b>14.5 Environmental hazards</b>	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.

**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 UK (GB)/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.

##### Ozone depleting substances

Not listed.

##### Prior Informed Consent (PIC)

Not listed.

##### Persistent Organic Pollutants

Not 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>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
--------------	---	---

##### Seveso Directive

This product is not controlled under the Seveso Directive.

### EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

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

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

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

## SECTION 15: Regulatory information

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](#)

**United States** : Not determined.

## 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](#)

Classification	Justification
Not classified.	

### [Full text of abbreviated H statements](#)

Not applicable.

### [Full text of classifications](#)

Not applicable.

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

**Date of previous issue** : 19/03/2021

**Version** : 4

### [Notice to reader](#)

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