

SAFETY DATA SHEET

Brilliant II SYBR Green QRT-PCR Master Mix - 1-Step - 10-pack, Part Number 600826

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

1.1 Product identifier

Product name	: Brilliant II SYBR Green QRT-PCR Master Mix - 1-Step - 10-pack, Part Number 600826		
Part no. (chemical kit)	: 600826		
Part no.	: 2X Brilliant II SYBR® QRT-PCR Master Mix	600825-51	
	: Reference Dye	600530-53	
	: RT/RNase Block Enzyme Mixture	600825-52	

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

Identified uses	: <input checked="" type="checkbox"/> Analytical reagent.		
	<input checked="" type="checkbox"/> Brilliant II SYBR® 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 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

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

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

Not classified.

<input checked="" type="checkbox"/> Brilliant II SYBR® 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

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

Signal word	: <input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	No signal word. No signal word. No signal word.
Hazard statements	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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		
Prevention	: <input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
Response	: <input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
Storage	: <input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
Disposal	: <input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
Supplemental label elements	: <input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Safety data sheet available on request. Not applicable. Safety data sheet available on request.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: <input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.

Special packaging requirements

SECTION 2: Hazards identification

- Containers to be fitted with child-resistant fastenings** : Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture Not applicable. Not applicable. Not applicable.
- Tactile warning of danger** : Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture Not applicable. Not applicable. Not applicable.

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

- 3.1 Substances** : 2X Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture Mixture Mixture Mixture

Product/ingredient name	Identifiers	%	Classification	Type
<input checked="" type="checkbox"/> Brilliant II SYBR® 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. See Section 16 for the full text of the H statements declared above.	[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

- Brilliant II SYBR® 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

Eye contact	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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.
Inhalation	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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.
Skin contact	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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.
Ingestion	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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.
Protection of first-aiders	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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

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

SECTION 4: First aid measures

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

Notes to physician	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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.
Specific treatments	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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

Suitable extinguishing media	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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.
Unsuitable extinguishing media	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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

Hazards from the substance or mixture	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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.
Hazardous combustion products	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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
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5.3 Advice for firefighters

Special protective actions for fire-fighters

: <input checked="" type="checkbox"/> Brilliant II SYBR® 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.

Special protective equipment for fire-fighters

: <input checked="" type="checkbox"/> Brilliant II SYBR® 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

For non-emergency personnel

: <input checked="" type="checkbox"/> Brilliant II SYBR® 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.

For emergency responders

: <input checked="" type="checkbox"/> Brilliant II SYBR® 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

6.2 Environmental precautions	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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

Methods for cleaning up	: 2X Brilliant II SYBR® 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.

6.4 Reference to other sections	: 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.
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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: 2X Brilliant II SYBR® QRT-PCR Master Mix Reference Dye	Put on appropriate personal protective equipment (see Section 8). Put on appropriate personal protective equipment (see Section 8).
	RT/RNase Block Enzyme Mixture	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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

Storage	: <input checked="" type="checkbox"/> Brilliant II SYBR® 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)

Recommendations	: 2X Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: 2X Brilliant II SYBR® 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 SYBR® QRT-PCR Master Mix Glycerol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 mg/m ³ 8 hours. Form: Mist
RT/RNase Block Enzyme Mixture Glycerol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 mg/m ³ 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 SYBR® QRT-PCR Master Mix Reference Dye Liquid.
RT/RNase Block Liquid.
Enzyme Mixture

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

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

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

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

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

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

Flash point	Ingredient name	Closed cup		Open cup	
		°C	Method	°C	Method
	2X Brilliant II SYBR® QRT-PCR Master Mix				
	dimethyl sulfoxide	87	ASTM D 93	87	-
	glycerol	-	-	177	-
	RT/RNase Block Enzyme Mixture				
	glycerol	-	-	177	-

Auto-ignition temperature	Ingredient name	°C	Method
	2X Brilliant II SYBR® QRT-PCR Master Mix		
	dimethyl sulfoxide	300 to 302	-
	glycerol	370	-
	RT/RNase Block Enzyme Mixture		
	glycerol	370	-

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

SECTION 9: Physical and chemical properties

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

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

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

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

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

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

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

SECTION 9: Physical and chemical properties

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

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

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

Particle characteristics

Median particle size : 2X Brilliant II SYBR® QRT-PCR Master Mix 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 : 2X Brilliant II SYBR® QRT-PCR Master Mix 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 No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : 2X Brilliant II SYBR® QRT-PCR Master Mix Reference Dye The product is stable.
RT/RNase Block The product is stable.
Enzyme Mixture The product is stable.

10.3 Possibility of hazardous reactions : 2X Brilliant II SYBR® QRT-PCR Master Mix 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 Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : 2X Brilliant II SYBR® QRT-PCR Master Mix Reference Dye No specific data.
RT/RNase Block No specific data.
Enzyme Mixture No specific data.

10.5 Incompatible materials : 2X Brilliant II SYBR® QRT-PCR Master Mix Reference Dye May react or be incompatible with oxidising materials.
RT/RNase Block May react or be incompatible with oxidising materials.
Enzyme Mixture May react or be incompatible with oxidising materials.

SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products	:	<input checked="" type="checkbox"/> Brilliant II SYBR® QRT-PCR Master Mix Reference Dye	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.
		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
<input checked="" type="checkbox"/> Brilliant II SYBR® 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 SYBR® 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 SYBR® 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.

SECTION 11: Toxicological information

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 : Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Not available.
Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Inhalation : Brilliant II SYBR® 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.

Ingestion : Brilliant II SYBR® 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.

Skin contact : Brilliant II SYBR® 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.

Eye contact : Brilliant II SYBR® 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.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture

No specific data.
No specific data.
No specific data.

Ingestion : Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture

No specific data.
No specific data.
No specific data.

Skin contact : Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture

No specific data.
No specific data.
No specific data.

Eye contact : Brilliant II SYBR® QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture

No specific data.
No specific data.
No specific data.

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

Short term exposure

Potential immediate effects : Not available.

SECTION 11: Toxicological information

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.

General : Brilliant II SYBR® QRT-PCR Master Mix Reference Dye
 No known significant effects or critical hazards.
 RT/RNase Block
 No known significant effects or critical hazards.
 Enzyme Mixture
 No known significant effects or critical hazards.

Carcinogenicity : Brilliant II SYBR® QRT-PCR Master Mix Reference Dye
 No known significant effects or critical hazards.
 RT/RNase Block
 No known significant effects or critical hazards.
 Enzyme Mixture
 No known significant effects or critical hazards.

Mutagenicity : Brilliant II SYBR® QRT-PCR Master Mix Reference Dye
 No known significant effects or critical hazards.
 RT/RNase Block
 No known significant effects or critical hazards.
 Enzyme Mixture
 No known significant effects or critical hazards.

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

Other information : 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 SYBR® 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 SYBR® QRT-PCR Master Mix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
RT/RNase Block Enzyme Mixture				

Brilliant II SYBR Green QRT-PCR Master Mix - 1-Step - 10-pack, Part Number 600826

SECTION 12: Ecological information

Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
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Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
<input checked="" type="checkbox"/> Brilliant II SYBR® 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_{oc}) : 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

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN 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.

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

Label : Brilliant II SYBR® 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

SECTION 15: Regulatory information

Industrial emissions (integrated pollution prevention and control) - Air : 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

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.

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Notice to reader

SECTION 16: Other information

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