

# SAFETY DATA SHEET



Brilliant II QRT-PCR Master Mix - 1-Step, Part Number 600809

## Section 1. Identification

**Product identifier** : Brilliant II QRT-PCR Master Mix - 1-Step, Part Number 600809  
**Part No. (Chemical Kit)** : 600809  
**Part No.** :  Brilliant II QRT-PCR Master Mix 600809-51  
 Reference Dye 600530-53  
 RT/RNase Block Enzyme Mixture 600809-52

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

Analytical reagent.

Brilliant II QRT-PCR Master Mix 2 × 2.5 ml  
 Reference dye 0.1 ml (100 µl 1 mM)  
 RT/RNase Block Enzyme Mixture 0.4 ml

**Supplier/Manufacturer** : Agilent Technologies Australia Pty Ltd  
 679 Springvale Road  
 Mulgrave  
 Victoria 3170, Australia  
 1800 802 402

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +(61)-290372994

## Section 2. Hazard(s) identification

### Classification of the substance or mixture

Not classified.

<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
Reference Dye	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
RT/RNase Block Enzyme Mixture	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
<input checked="" type="checkbox"/> Reference Dye	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.4%

### GHS label elements

**Signal word** :  Brilliant II QRT-PCR Master Mix No signal word.  
 Reference Dye No signal word.  
 RT/RNase Block Enzyme Mixture No signal word.

**Hazard statements** :  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

## Section 2. Hazard(s) identification

<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>		
<b>Additional warning phrases</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>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 Enzyme Mixture	None known.

## Section 3. Composition and ingredient information

<b>Substance/mixture</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Mixture
	Reference Dye	Mixture
	RT/RNase Block Enzyme Mixture	Mixture

### CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix		
Glycerol	≥10 - ≤30	56-81-5
Polyethylene glycol	≥10 - ≤30	25322-68-3
Dimethyl sulfoxide	≤3	67-68-5
<b>RT/RNase Block Enzyme Mixture</b>		
Glycerol	≥30 - ≤60	56-81-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

## Section 4. First aid measures

### Description of necessary 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

## Section 4. First aid measures

<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 Enzyme Mixture	No known significant effects or critical hazards.
<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 Enzyme Mixture	No known significant effects or critical hazards.
<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 Enzyme Mixture	No known significant effects or critical hazards.
<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 Enzyme Mixture	No known significant effects or critical hazards.

### 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.
<b>Inhalation</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.
<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 Enzyme Mixture	No specific data.
<b>Ingestion</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.

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

<b>Notes to physician</b>	: <input checked="" type="checkbox"/> 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 Enzyme Mixture	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	No specific treatment.
	Reference Dye	No specific treatment.
	RT/RNase Block Enzyme Mixture	No specific treatment.

## Section 4. First aid measures

<b>Protection of first-aiders</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye  RT/RNase Block Enzyme Mixture	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.
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See toxicological information (Section 11)

## Section 5. Firefighting measures

### 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.

### Specific hazards arising from the chemical

: <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.
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### Hazardous thermal decomposition products

: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix  Reference Dye  RT/RNase Block Enzyme Mixture	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide
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### Special protective actions for fire-fighters

: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix  Reference Dye  RT/RNase Block Enzyme Mixture	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
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## Section 5. Firefighting measures

<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

### 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".
<b>Environmental precautions</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).

## Section 6. Accidental release measures

### Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	: <input checked="" type="checkbox"/> 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.

## Section 7. Handling and storage

### Precautions for safe handling

<b>Protective measures</b>	: <input checked="" type="checkbox"/> 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>	: <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.
<b>Conditions for safe storage, including any incompatibilities</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

## Section 7. Handling and storage

Reference Dye

incompatible materials before handling or use. 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.

## Section 8. Exposure controls and personal protection

### [Control parameters](#)

#### [Occupational exposure limits](#)

Ingredient name	Exposure limits
<b>2X Brilliant II QRT-PCR Master Mix</b> Glycerol  Polyethylene glycol   Dimethyl sulfoxide	<b>Safe Work Australia (Australia, 1/2014).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. <b>DFG MAC-values list (Germany, 7/2015).</b> PEAK: 8000 mg/m <sup>3</sup> , 4 times per shift, 15 minutes. Form: Inhalable fraction TWA: 1000 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction <b>DFG MAC-values list (Germany, 7/2015).</b> <b>Absorbed through skin.</b> PEAK: 320 mg/m <sup>3</sup> , 4 times per shift, 15 minutes. TWA: 160 mg/m <sup>3</sup> 8 hours. PEAK: 100 ppm, 4 times per shift, 15 minutes. TWA: 50 ppm 8 hours.
<b>RT/RNase Block Enzyme Mixture</b> Glycerol	<b>Safe Work Australia (Australia, 1/2014).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### [Individual protection measures](#)



## Section 8. Exposure controls and personal protection

- 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.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** :  Brilliant II QRT-PCR Master Mix Liquid.  
Reference Dye Liquid.  
RT/RNase Block Enzyme Mixture Liquid.
- Colour** :  Brilliant II QRT-PCR Master Mix Not available.  
Reference Dye Not available.  
RT/RNase Block Enzyme Mixture Not available.
- Odour** :  Brilliant II QRT-PCR Master Mix Not available.  
Reference Dye Not available.  
RT/RNase Block Enzyme Mixture Not available.
- Odour threshold** :  Brilliant II QRT-PCR Master Mix Not available.  
Reference Dye Not available.  
RT/RNase Block Enzyme Mixture Not available.
- pH** :  Brilliant II QRT-PCR Master Mix 8  
Reference Dye 8  
RT/RNase Block Enzyme Mixture 8
- Melting point** :  Brilliant II QRT-PCR Master Mix Not available.  
Reference Dye Not available.  
RT/RNase Block Enzyme Mixture Not available.

## Section 9. Physical and chemical properties

<b>Boiling point</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Flash point</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Evaporation rate</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Flammability (solid, gas)</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not applicable. Not applicable. Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Vapour pressure</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Vapour density</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Relative density</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Solubility</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Auto-ignition temperature</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Reference Dye RT/RNase Block Enzyme Mixture	Not available. Not available. Not available.
<b>Decomposition temperature</b>	: <input checked="" type="checkbox"/> 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>Viscosity</b>	: <input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix	Not available.
	Reference Dye	Not available.
	RT/RNase Block Enzyme Mixture	Not available.

## Section 10. Stability and reactivity

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

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

## Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
<b>2X Brilliant II QRT-PCR Master Mix</b>				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Dimethyl sulfoxide	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-
<b>RT/RNase Block Enzyme Mixture</b>				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-

### Irritation/Corrosion

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

### Sensitisation

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

## Section 11. Toxicological information

Not available.

### Aspiration hazard

Not available.

**Information on likely routes of exposure** :  Brilliant II QRT-PCR Master Mix Routes of entry anticipated: Oral, Dermal, Inhalation.  
 Reference Dye Routes of entry anticipated: Oral, Dermal, Inhalation.  
 RT/RNase Block Enzyme Mixture Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

**Eye contact** :  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.

**Inhalation** :  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.

**Skin contact** :  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.

**Ingestion** :  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.

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

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

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

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

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

Not available.

<b>General</b>	: <input checked="" type="checkbox"/> 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.
<b>Carcinogenicity</b>	: <input checked="" type="checkbox"/> 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.
<b>Mutagenicity</b>	: <input checked="" type="checkbox"/> 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.
<b>Teratogenicity</b>	: <input checked="" type="checkbox"/> 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.
<b>Developmental effects</b>	: <input checked="" type="checkbox"/> 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.
<b>Fertility effects</b>	: <input checked="" type="checkbox"/> 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.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### 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 - Oncorhynchus mykiss	96 hours
Polyethylene glycol	Acute LC50 >1000000 µg/l Fresh water	Fish - Salmo salar - Parr	96 hours
Dimethyl sulfoxide	Acute LC50 25000 ppm Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 34000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 100 µl/L Marine water	Algae - Ulva lactuca	72 hours

## Section 12. Ecological information

RT/RNase Block Enzyme Mixture Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
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### 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	-	-

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<input checked="" type="checkbox"/> Brilliant II QRT-PCR Master Mix Glycerol	-1.76	-	low
Polyethylene glycol	-	3.2	low
Dimethyl sulfoxide	-1.35	3.16	low
RT/RNase Block Enzyme Mixture Glycerol	-1.76	-	low

### Mobility in soil

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

Other adverse effects :  No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** :  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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. 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

**ADG / IMDG / IATA** : Not regulated as Dangerous Goods according to the ADG Code .

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

## Section 15. Regulatory information

### Standard Uniform Schedule of Medicine and Poisons

6

### Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

### International regulations

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

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

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>	: All components are listed or exempted.
<b>Europe</b>	: Not determined.
<b>Japan</b>	: <input checked="" type="checkbox"/> <b>Japan inventory (ENCS):</b> Not determined. <input checked="" type="checkbox"/> <b>Japan inventory (ISHL):</b> Not determined.
<b>Malaysia</b>	: Not determined.
<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>	: <input checked="" type="checkbox"/> Not determined.
<b>Turkey</b>	: <input checked="" type="checkbox"/> Not determined.
<b>United States</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Viet Nam</b>	: <input checked="" type="checkbox"/> Not determined.



## Section 16. Any other relevant information

### History

**Date of issue/Date of revision** : 27/10/2017  
**Date of previous issue** : 16/06/2015.  
**Version** : 5

### Key to abbreviations

: ADG = Australian Dangerous Goods  
 ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 NOHSC = National Occupational Health and Safety Commission  
 SUSMP = Standard Uniform Schedule of Medicine and Poisons  
 UN = United Nations

### Procedure used to derive the classification

Classification	Justification
Not classified.	

**References** : Not available.

✔ Indicates information that has changed from previously issued version.

### Notice to reader

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