

SAFETY DATA SHEET



Brilliant III Ultra-Fast QRT-PCR Master Mix Sample, Part Number 5190-7271

Section 1. Identification

Product identifier : Brilliant III Ultra-Fast QRT-PCR Master Mix Sample, Part Number 5190-7271
Part no. (chemical kit) : 5190-7271
Part no. : 2X Brilliant III QRT-PCR Master Mix 600884-51
 RT/RNase Block 5190-7272
 Reference Dye 600530-53
 100 mM DTT 600089-53

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

Material uses : Analytical reagent.
 Brilliant III QRT-PCR Master Mix 2 ml
 RT/RNase Block 0.1 ml
 Reference Dye 0.1 ml (100 µl 1 mM)
 100 mM DTT 0.1 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 III QRT-PCR Master Mix	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
RT/RNase Block	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
Reference Dye	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
100 mM DTT	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	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 hazards to the aquatic environment: 2.4%

GHS label elements

Signal word : Brilliant III QRT-PCR Master Mix No signal word.
 RT/RNase Block No signal word.
 Reference Dye No signal word.
 100 mM DTT No signal word.

Section 2. Hazard(s) identification

Hazard statements	: <input checked="" type="checkbox"/> Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No known significant effects or critical hazards. 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 III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Not applicable. Not applicable. Not applicable. Not applicable.
Response	: <input checked="" type="checkbox"/> Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Not applicable. Not applicable. Not applicable. Not applicable.
Storage	: <input checked="" type="checkbox"/> Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Not applicable. Not applicable. Not applicable. Not applicable.
Disposal	: <input checked="" type="checkbox"/> Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Not applicable. Not applicable. Not applicable. Not applicable.
Supplemental label elements		
Additional warning phrases	: <input checked="" type="checkbox"/> Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Not applicable. Not applicable. Not applicable. Not applicable.
Other hazards which do not result in classification	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	None known. None known. None known. None known.

Section 3. Composition and ingredient information

Substance/mixture	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Mixture Mixture Mixture Mixture
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CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
2X Brilliant III QRT-PCR Master Mix		
Glycerol	≥10 - ≤30	56-81-5
Polyethylene glycol	≤10	25322-68-3
RT/RNase Block		
Glycerol	≥30 - ≤60	56-81-5

Section 3. Composition and ingredient information

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

Eye contact	: 2X Brilliant III 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.
	RT/RNase Block	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.
	100 mM DTT	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	: 2X Brilliant III 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.
	RT/RNase Block	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.
	100 mM DTT	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: 2X Brilliant III QRT-PCR Master Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	RT/RNase Block	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.
	100 mM DTT	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: 2X Brilliant III 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.
	RT/RNase Block	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

Section 4. First aid measures

Reference Dye

water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

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.

100 mM DTT

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

Eye contact	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No known significant effects or critical hazards.
Inhalation	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No known significant effects or critical hazards.
Skin contact	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No known significant effects or critical hazards.
Ingestion	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No specific data.
Inhalation	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No specific data.
Skin contact	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No specific data.

Section 4. First aid measures

Ingestion	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No specific data. No specific data. No specific data. No specific data.
<u>Indication of immediate medical attention and special treatment needed, if necessary</u>		
Notes to physician	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	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. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	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. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	None known. None known. None known. None known.
Specific hazards arising from the chemical	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	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. In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Firefighting measures

Hazardous thermal decomposition products	: 2X Brilliant III QRT-PCR Master Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
	RT/RNase Block	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Reference Dye	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	100 mM DTT	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
Special protective actions for fire-fighters	: 2X Brilliant III 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.
	RT/RNase Block	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.
	100 mM DTT	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	: 2X Brilliant III 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.
	RT/RNase Block	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.
	100 mM DTT	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

For non-emergency personnel	: 2X Brilliant III 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.
	RT/RNase Block	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.
	100 mM DTT	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	: 2X Brilliant III 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".
	RT/RNase Block	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".
	100 mM DTT	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".
Environmental precautions	: 2X Brilliant III 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).
	RT/RNase Block	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).
	100 mM DTT	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

Methods for cleaning up	: 2X Brilliant III 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.
	RT/RNase Block	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.
	100 mM DTT	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

Protective measures	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Put on appropriate personal protective equipment (see Section 8). Put on appropriate personal protective equipment (see Section 8). Put on appropriate personal protective equipment (see Section 8). Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	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. 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. 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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Brilliant III QRT-PCR Master Mix

RT/RNase Block

Reference Dye

100 mM DTT

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.

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.

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.

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.

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](#)

Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
2X Brilliant III QRT-PCR Master Mix Glycerol Polyethylene glycol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours. DFG MAC-values list (Germany, 7/2017). PEAK: 8000 mg/m ³ , 4 times per shift, 15 minutes. Form: Inhalable fraction TWA: 1000 mg/m ³ 8 hours. Form: Inhalable fraction
RT/RNase Block Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 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

- 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	: 2X Brilliant III QRT-PCR Master Mix	Liquid.
	RT/RNase Block	Liquid.
	Reference Dye	Liquid.
	100 mM DTT	Liquid.

Section 9. Physical and chemical properties

Colour	: 2X Brilliant III QRT-PCR Master Mix	Not available.
	RT/RNase Block	Not available.
	Reference Dye	Not available.
	100 mM DTT	Not available.
Odour	: 2X Brilliant III QRT-PCR Master Mix	Not available.
	RT/RNase Block	Not available.
	Reference Dye	Not available.
	100 mM DTT	Not available.
Odour threshold	: 2X Brilliant III QRT-PCR Master Mix	Not available.
	RT/RNase Block	Not available.
	Reference Dye	Not available.
	100 mM DTT	Not available.
pH	: 2× Brilliant III Ultra-Fast QRT-PCR Master Mix	7.8
	RT/RNase Block	8
	Reference dye, 1mM	Not available.
	100 mM DTT	Not available.
Melting point	: <input checked="" type="checkbox"/> Brilliant III QRT-PCR Master Mix	Not available.
	RT/RNase Block	Not available.
	Reference Dye	Not available.
	100 mM DTT	0°C (32°F)
Boiling point	: <input checked="" type="checkbox"/> Brilliant III QRT-PCR Master Mix	Not available.
	RT/RNase Block	Not available.
	Reference Dye	Not available.
	100 mM DTT	100°C (212°F)
Flash point	: 2X Brilliant III QRT-PCR Master Mix	Not available.
	RT/RNase Block	Not available.
	Reference Dye	Not available.
	100 mM DTT	Not available.
Evaporation rate	: 2X Brilliant III QRT-PCR Master Mix	Not available.
	RT/RNase Block	Not available.
	Reference Dye	Not available.
	100 mM DTT	Not available.
Flammability (solid, gas)	: 2X Brilliant III QRT-PCR Master Mix	Not applicable.
	RT/RNase Block	Not applicable.
	Reference Dye	Not applicable.
	100 mM DTT	Not applicable.
Lower and upper explosive (flammable) limits	: 2X Brilliant III QRT-PCR Master Mix	Not available.
	RT/RNase Block	Not available.
	Reference Dye	Not available.
	100 mM DTT	Not available.
Vapour pressure	: 2X Brilliant III QRT-PCR Master Mix	Not available.
	RT/RNase Block	Not available.
	Reference Dye	Not available.
	100 mM DTT	Not available.
Vapour density	: 2X Brilliant III QRT-PCR Master Mix	Not available.
	RT/RNase Block	Not available.
	Reference Dye	Not available.
	100 mM DTT	Not available.

Section 9. Physical and chemical properties

Relative density	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Not available. Not available. Not available. Not available.
Solubility	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Not available. Not available. Not available. Not available.
Auto-ignition temperature	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Not available. Not available. Not available. Not available.
Decomposition temperature	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Not available. Not available. Not available. Not available.
Viscosity	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Not available. Not available. Not available. Not available.

Section 10. Stability and reactivity

Reactivity	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	The product is stable. The product is stable. The product is stable. The product is stable.
Possibility of hazardous reactions	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

Conditions to avoid	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No specific data. No specific data. No specific data. No specific data.
Incompatible materials	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
Hazardous decomposition products	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2X Brilliant III QRT-PCR Master Mix Glycerol	LD50 Oral	Rat	12600 mg/kg	-
RT/RNase Block Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation	
2X Brilliant III QRT-PCR Master Mix 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	-
RT/RNase Block Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-	
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-	

Sensitisation

Section 11. Toxicological information

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.

Information on likely routes of exposure	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation.
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Potential acute health effects

Eye contact	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No known significant effects or critical hazards. 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

Eye contact	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No specific data. No specific data. No specific data. No specific data.
Inhalation	: 2X Brilliant III QRT-PCR Master Mix RT/RNase Block Reference Dye 100 mM DTT	No specific data. No specific data. No specific data. No specific data.

Section 11. Toxicological information

Skin contact	: 2X Brilliant III QRT-PCR Master Mix	No specific data.
	RT/RNase Block	No specific data.
	Reference Dye	No specific data.
	100 mM DTT	No specific data.
Ingestion	: 2X Brilliant III QRT-PCR Master Mix	No specific data.
	RT/RNase Block	No specific data.
	Reference Dye	No specific data.
	100 mM DTT	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.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: 2X Brilliant III QRT-PCR Master Mix	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
Carcinogenicity	: 2X Brilliant III QRT-PCR Master Mix	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
Mutagenicity	: 2X Brilliant III QRT-PCR Master Mix	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
Teratogenicity	: 2X Brilliant III QRT-PCR Master Mix	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
Developmental effects	: 2X Brilliant III QRT-PCR Master Mix	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
Fertility effects	: 2X Brilliant III QRT-PCR Master Mix	No known significant effects or critical hazards.
	RT/RNase Block	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Route	ATE value
100 mM DTT Oral	33333.3 mg/kg

Section 12. Ecological information**Toxicity**

Product/ingredient name	Result	Species	Exposure
2X Brilliant III QRT-PCR Master Mix Glycerol Polyethylene glycol	Acute LC50 54000 mg/l Fresh water Acute LC50 >1000000 µg/l Fresh water	Fish - Oncorhynchus mykiss Fish - Salmo salar - Parr	96 hours 96 hours
RT/RNase Block Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2X Brilliant III QRT-PCR Master Mix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
RT/RNase Block Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2X Brilliant III QRT-PCR Master Mix Glycerol Polyethylene glycol	-1.76 -	- 3.2	low low
RT/RNase Block Glycerol	-1.76	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : 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

Not regulated.

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

Australia	: Not determined.
Canada	: Not determined.
China	: All components are listed or exempted.
Europe	: Not determined.
Japan	: Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.

Section 15. Regulatory information

Taiwan : Not determined.
 Thailand : Not determined.
 Turkey : Not determined.
 United States : Not determined.
 Viet Nam : Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 03/07/2018

Date of previous issue : 29/07/2016

Version : 3

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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