

# SAFETY DATA SHEET

## Brilliant II SYBR Green QPCR Master Mix

### Section 1. Identification

<b>Product identifier</b>	: <input checked="" type="checkbox"/> Brilliant II SYBR Green QPCR Master Mix		
<b>Part no. (chemical kit)</b>	: 600828		
<b>Part no.</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	600828-51	
	: Reference Dye	600530-53	

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

<b>Identified uses</b>	: <input checked="" type="checkbox"/> Analytical reagent.		
	<input checked="" type="checkbox"/> 2X Brilliant II SYBR® Green QPCR Master Mix	2 x 2.5 ml	
	: Reference Dye	0.1 ml (100 µl 1 mM)	

<b>Supplier/Manufacturer</b>	: Agilent Technologies Australia Pty Ltd 679 Springvale Road Mulgrave Victoria 3170, Australia 1800 802 402		
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<b>Emergency telephone number (with hours of operation)</b>	: CHEMTREC®: +(61)-290372994		
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### Section 2. Hazard(s) identification

#### Classification of the substance or mixture

2X Brilliant II SYBR® Green QPCR Master Mix  
H320

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

#### GHS label elements

<b>Signal word</b>	: <input checked="" type="checkbox"/> 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	WARNING No signal word.
<b>Hazard statements</b>	: <input checked="" type="checkbox"/> 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	H320 - Causes eye irritation. No known significant effects or critical hazards.

#### Precautionary statements

<b>Prevention</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	Not applicable. Not applicable.
<b>Response</b>	: <input checked="" type="checkbox"/> 2X Brilliant II SYBR® Green QPCR Master Mix	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
<b>Storage</b>	: Reference Dye	Not applicable.
	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	Not applicable. Not applicable.

## Section 2. Hazard(s) identification

**Disposal** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye Not applicable.  
Not applicable.

### Supplemental label elements

**Additional warning phrases** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye Not applicable.  
Not applicable.

**Other hazards which do not result in classification** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye None known.  
None known.

## Section 3. Composition and ingredient information

**Substance/mixture** : 2X Brilliant II SYBR® Green Mixture  
QPCR Master Mix  
Reference Dye Mixture

### CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
<input checked="" type="checkbox"/> Brilliant II SYBR® Green QPCR Master Mix		
Glycerol	≥10 - ≤30	56-81-5
Dimethyl sulfoxide	≤10	67-68-5

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

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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

## Section 4. First aid measures

### Description of necessary first aid measures

**Eye contact** :  Brilliant II SYBR® Green QPCR Master Mix Reference Dye  
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.  
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** :  Brilliant II SYBR® Green QPCR Master Mix Reference Dye  
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.  
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

## Section 4. First aid measures

<b>Skin contact</b>	: <input checked="" type="checkbox"/> Brilliant II SYBR® Green QPCR Master Mix  Reference Dye	under medical surveillance for 48 hours. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. 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 SYBR® Green QPCR Master Mix  Reference Dye	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.

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

#### Potential acute health effects

<b>Eye contact</b>	: <input checked="" type="checkbox"/> Brilliant II SYBR® Green QPCR Master Mix Reference Dye	Causes eye irritation.  No known significant effects or critical hazards.
<b>Inhalation</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	No known significant effects or critical hazards.  No known significant effects or critical hazards.
<b>Skin contact</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	No known significant effects or critical hazards.  No known significant effects or critical hazards.
<b>Ingestion</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	No known significant effects or critical hazards.  No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: <input checked="" type="checkbox"/> Brilliant II SYBR® Green QPCR Master Mix  Reference Dye	Adverse symptoms may include the following:  irritation watering redness No specific data.
<b>Inhalation</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	No specific data.  No specific data.
<b>Skin contact</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	No specific data.  No specific data.
<b>Ingestion</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	No specific data.  No specific data.

## Section 4. First aid measures

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

<b>Notes to physician</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix  Reference Dye	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.
<b>Specific treatments</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	No specific treatment.  No specific treatment.
<b>Protection of first-aiders</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix  Reference Dye	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.  No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media


<b>Suitable extinguishing media</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	None known.  None known.
<b>Specific hazards arising from the chemical</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	: 2X Brilliant II SYBR® Green QPCR 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 metal oxide/oxides
<b>Special protective actions for fire-fighters</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix  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. 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.

## Section 5. Firefighting measures

<b>Special protective equipment for fire-fighters</b>	: 2X Brilliant II SYBR® Green QPCR 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.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	:  2X Brilliant II SYBR® Green QPCR 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.
<b>For emergency responders</b>	: 2X Brilliant II SYBR® Green QPCR 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".
<b>Environmental precautions</b>	: 2X Brilliant II SYBR® Green QPCR 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).

### Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	: 2X Brilliant II SYBR® Green QPCR 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.

## Section 7. Handling and storage

### Precautions for safe handling

<b>Protective measures</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Reference Dye	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	: 2X Brilliant II SYBR® Green QPCR 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.
<b>Conditions for safe storage, including any incompatibilities</b>	: 2X Brilliant II SYBR® Green QPCR 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.

## Section 8. Exposure controls and personal protection

### Control parameters

### Occupational exposure limits

## Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
<input checked="" type="checkbox"/> Brilliant II SYBR® Green QPCR Master Mix Glycerol  Dimethyl sulfoxide	<b>Safe Work Australia (Australia, 10/2022).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. <b>DFG MAC-values list (Germany, 7/2023).</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.

### Biological exposure indices

No exposure indices known.

- 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: chemical splash goggles.
- 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- 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 and safety characteristics

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

### Appearance

<b>Physical state</b>	:	2X Brilliant II SYBR® Green QPCR Master Mix	Liquid.
		Reference Dye	Liquid.
<b>Colour</b>	:	2X Brilliant II SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.
<b>Odour</b>	:	2X Brilliant II SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.
<b>Odour threshold</b>	:	2X Brilliant II SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.
<b>pH</b>	:	2X Brilliant II SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	8
<b>Melting point/freezing point</b>	:	2X Brilliant II SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.
<b>Boiling point, initial boiling point, and boiling range</b>	:	2X Brilliant II SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.

<b>Flash point</b>	:		<b>Closed cup</b>			<b>Open cup</b>		
		<b>Ingredient name</b>	<b>°C</b>	<b>°F</b>	<b>Method</b>	<b>°C</b>	<b>°F</b>	<b>Method</b>
		<b>2X Brilliant II SYBR® Green QPCR Master Mix</b>						
		Dimethyl sulfoxide	87	188.6	ASTM D 93	87	188.6	-
		Glycerol	-	-	-	177	350.6	-

<b>Evaporation rate</b>	:	2X Brilliant II SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.

<b>Flammability</b>	:	2X Brilliant II SYBR® Green QPCR Master Mix	Not applicable.
		Reference Dye	Not applicable.

<b>Lower and upper explosion limit/flammability limit</b>	:	2X Brilliant II SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.

<b>Vapour pressure</b>	:		<b>Vapour Pressure at 20 °C</b>			<b>Vapour pressure at 50 °C</b>		
		<b>Ingredient name</b>	<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>	<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>
		<b>2X Brilliant II SYBR® Green QPCR Master Mix</b>						
		water	17.5	2.3	-	92.258	12.3	-
		Dimethyl sulfoxide	0.42	0.056	EU A.4	-	-	-
		<b>Reference Dye</b>						

## Section 9. Physical and chemical properties and safety characteristics

	water	17.5	2.3	-	92.258	12.3	-
<b>Relative vapour density</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	Not available.					
	Reference Dye	Not available.					
<b>Relative density</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	Not available.					
	Reference Dye	Not available.					
<b>Solubility(ies)</b>	: <b>Media</b>	<b>Result</b>					
	2X Brilliant II SYBR® Green QPCR Master Mix	Soluble					
	water						
	Reference Dye	Soluble					
	water						
<b>Partition coefficient: n-octanol/water</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	Not applicable.					
	Reference Dye	Not applicable.					
<b>Auto-ignition temperature</b>	: <b>Ingredient name</b>	<b>°C</b>	<b>°F</b>	<b>Method</b>			
	2X Brilliant II SYBR® Green QPCR Master Mix						
	Dimethyl sulfoxide	300 to 302	572 to 575.6	-			
	Glycerol	370	698	-			
<b>Decomposition temperature</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	Not available.					
	Reference Dye	Not available.					
<b>Viscosity</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	Not available.					
	Reference Dye	Not available.					
<b>Particle characteristics</b>							
<b>Median particle size</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	Not applicable.					
	Reference Dye	Not applicable.					

## Section 10. Stability and reactivity

<b>Reactivity</b>	: 2X Brilliant II SYBR® Green QPCR 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.					
<b>Chemical stability</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	The product is stable.					
	Reference Dye	The product is stable.					
<b>Possibility of hazardous reactions</b>	: 2X Brilliant II SYBR® Green QPCR 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.					
<b>Conditions to avoid</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	No specific data.					
	Reference Dye	No specific data.					

## Section 10. Stability and reactivity

<b>Incompatible materials</b>	: 2X Brilliant II SYBR® Green QPCR Master Mix	May react or be incompatible with oxidising materials.
	Reference Dye	May react or be incompatible with oxidising materials.
<b>Hazardous decomposition products</b>	: 2X Brilliant II SYBR® Green QPCR 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.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2X Brilliant II SYBR® Green QPCR Master Mix				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Dimethyl sulfoxide	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2X Brilliant II SYBR® Green QPCR Master Mix					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Dimethyl sulfoxide	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

#### Sensitisation

Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

#### Reproductive toxicity

**Conclusion/Summary** : Not available.

#### Teratogenicity

**Conclusion/Summary** : Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

## Section 11. Toxicological information

**Information on likely routes of exposure** :  Brilliant II SYBR® Green QPCR Master Mix Reference Dye Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.  
Not available.

### Potential acute health effects

**Eye contact** :  Brilliant II SYBR® Green QPCR Master Mix Reference Dye Causes eye irritation.  
No known significant effects or critical hazards.

**Inhalation** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye No known significant effects or critical hazards.  
No known significant effects or critical hazards.

**Skin contact** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye No known significant effects or critical hazards.  
No known significant effects or critical hazards.

**Ingestion** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye 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** :  Brilliant II SYBR® Green QPCR Master Mix Adverse symptoms may include the following:  
irritation  
watering  
redness  
Reference Dye No specific data.

**Inhalation** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye No specific data.  
No specific data.

**Skin contact** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye No specific data.  
No specific data.

**Ingestion** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye 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.

**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 II SYBR® Green QPCR Master Mix Reference Dye No known significant effects or critical hazards.  
No known significant effects or critical hazards.

**Carcinogenicity** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye No known significant effects or critical hazards.  
No known significant effects or critical hazards.

**Mutagenicity** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye No known significant effects or critical hazards.  
No known significant effects or critical hazards.

**Reproductive toxicity** : 2X Brilliant II SYBR® Green QPCR Master Mix Reference Dye No known significant effects or critical hazards.  
No known significant effects or critical hazards.

## Section 11. Toxicological information

### Numerical measures of toxicity

#### 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)
<b>2X Brilliant II SYBR® Green QPCR Master Mix</b>					
Glycerol	12600	N/A	N/A	N/A	N/A
Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
<b>2X Brilliant II SYBR® Green QPCR Master Mix</b>			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Dimethyl sulfoxide	Acute LC50 25000 ppm Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 34000000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Chronic NOEC 100 µl/L Marine water	Algae - <i>Ulva lactuca</i>	72 hours
	Chronic NOEC 100 µl/L Fresh water	Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	21 days

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>2X Brilliant II SYBR® Green QPCR Master Mix</b>				
Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Dimethyl sulfoxide	OECD 301D Ready Biodegradability - Closed Bottle Test	31 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>2X Brilliant II SYBR® Green QPCR Master Mix</b>			
Dimethyl sulfoxide	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>2X Brilliant II SYBR® Green QPCR Master Mix</b>			
Glycerol	-1.76	-	Low
Dimethyl sulfoxide	-1.35	3.16	Low

### Mobility in soil

## Section 12. Ecological information

**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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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 IMO instruments** : Not available.

## Section 15. Regulatory information

### Standard for the Uniform Scheduling of Medicines 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

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.

**New Zealand** : Not determined.

**United States** : Not determined.

## Section 16. Any other relevant information

### History

Date of issue/Date of revision : 17/07/2024

Date of previous issue : 15/07/2021

Version : 8

### Key to abbreviations

: ADG = Australian Dangerous Goods  
 : ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
 : 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)  
 : N/A = Not available  
 : SUSMP = Standard Uniform Schedule of Medicine and Poisons  
 : UN = United Nations

### Procedure used to derive the classification

Classification	Justification
<b>2X Brilliant II SYBR® Green QPCR Master Mix</b> SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method

Indicates information that has changed from previously issued version.

### Notice to reader

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