

SAFETY DATA SHEET



Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600883

Section 1. Identification

Product identifier : Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600883
Part no. (chemical kit) : 600883
Part no. : Reference Dye 600530-53
 2X Brilliant III SYBR® Green QPCR 600882-51
 Master Mix

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

Identified uses : Analytical reagent.
 Reference Dye 0.1 ml (100 µl 1 mM)
 2X Brilliant III SYBR® Green QPCR Master Mix 10 x 2 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

2X Brilliant III SYBR® Green
 QPCR Master Mix
 H320

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

GHS label elements

Signal word : Reference Dye No signal word.
 2X Brilliant III SYBR® Green WARNING
 QPCR Master Mix

Hazard statements : Reference Dye No known significant effects or critical hazards.
 2X Brilliant III SYBR® Green H320 - Causes eye irritation.
 QPCR Master Mix

Precautionary statements

Prevention : Reference Dye Not applicable.
 2X Brilliant III SYBR® Green Not applicable.
 QPCR Master Mix

Response : Reference Dye Not applicable.
 2X Brilliant III SYBR® Green P305 + P351 + P338 - IF IN EYES: Rinse cautiously
 QPCR Master Mix 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.

Storage : Reference Dye Not applicable.
 2X Brilliant III SYBR® Green Not applicable.
 QPCR Master Mix

Section 2. Hazard(s) identification

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

Supplemental label elements

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

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

Section 3. Composition and ingredient information

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

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
2X Brilliant III 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 :  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.
2X Brilliant III SYBR® Green 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.
QPCR Master Mix

Inhalation :  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.
2X Brilliant III SYBR® Green 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

Section 4. First aid measures

Skin contact	: Reference Dye	as a collar, tie, belt or waistband. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	2X Brilliant III SYBR® Green QPCR Master Mix	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.
Ingestion	: Reference Dye	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	2X Brilliant III SYBR® Green QPCR Master Mix	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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No known significant effects or critical hazards. Causes eye irritation.
Inhalation	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No specific data. Adverse symptoms may include the following: irritation watering redness
Inhalation	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No specific data. No specific data.
Skin contact	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No specific data. No specific data.
Ingestion	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No specific data. No specific data.

Section 4. First aid measures

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

Notes to physician	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	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	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No specific treatment. No specific treatment.
Protection of first-aiders	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

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

Special protective equipment for fire-fighters	: 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.
	2X Brilliant III 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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: 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.
	2X Brilliant III 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.
For emergency responders	: 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".
	2X Brilliant III 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".
Environmental precautions	: 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).
	2X Brilliant III 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).

Methods and material for containment and cleaning up

Methods for cleaning up	: 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.
	2X Brilliant III 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Put on appropriate personal protective equipment (see Section 8). 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.
Advice on general occupational hygiene	: Reference Dye 2X Brilliant III 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. 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.
Conditions for safe storage, including any incompatibilities	: Reference Dye 2X Brilliant III 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. 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 III SYBR® Green QPCR Master Mix Glycerol Dimethyl sulfoxide	Safe Work Australia (Australia, 12/2019). TWA: 10 mg/m ³ 8 hours. DFG MAC-values list (Germany, 10/2021). Absorbed through skin. PEAK: 320 mg/m ³ , 4 times per shift, 15 minutes. TWA: 160 mg/m ³ 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

Physical state	:	Reference Dye	Liquid.
		2X Brilliant III SYBR® Green	Liquid.
		QPCR Master Mix	
Colour	:	Reference Dye	Not available.
		2X Brilliant III SYBR® Green	Not available.
		QPCR Master Mix	
Odour	:	Reference Dye	Not available.
		2X Brilliant III SYBR® Green	Not available.
		QPCR Master Mix	
Odour threshold	:	Reference Dye	Not available.
		2X Brilliant III SYBR® Green	Not available.
		QPCR Master Mix	
pH	:	Reference Dye	8
		2X Brilliant III SYBR® Green	7.8
		QPCR Master Mix	
Melting point/freezing point	:	Reference Dye	Not available.
		2X Brilliant III SYBR® Green	Not available.
		QPCR Master Mix	
Boiling point, initial boiling point, and boiling range	:	Reference Dye	Not available.
		2X Brilliant III SYBR® Green	Not available.
		QPCR Master Mix	

Flash point

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
2X Brilliant III SYBR® Green QPCR Master Mix						
Dimethyl sulfoxide	87	188.6	ASTM D 93	87	188.6	
Glycerol				177	350.6	

Evaporation rate	:	Reference Dye	Not available.
		2X Brilliant III SYBR® Green	Not available.
		QPCR Master Mix	

Flammability	:	Reference Dye	Not applicable.
		2X Brilliant III SYBR® Green	Not applicable.
		QPCR Master Mix	

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

Vapour pressure

Ingredient name	Vapour Pressure at 20 °C			Vapour pressure at 50 °C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Reference Dye						
water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	0	0		0.000007501	0.000001	
2X Brilliant III						

Section 9. Physical and chemical properties and safety characteristics

	SYBR® Green QPCR Master Mix						
	water	23.8	3.2		92.258	12.3	
	Dimethyl sulfoxide	0.42	0.056	EU A.4			
Relative vapour density	: Reference Dye	Not available.					
	2X Brilliant III SYBR® Green QPCR Master Mix	Not available.					
Relative density	: Reference Dye	Not available.					
	2X Brilliant III SYBR® Green QPCR Master Mix	Not available.					
Solubility(ies)	: Media	Result					
	Reference Dye						
	water	Soluble					
	2X Brilliant III SYBR® Green QPCR Master Mix						
	water	Soluble					
Partition coefficient: n-octanol/water	: Reference Dye	Not applicable.					
	2X Brilliant III SYBR® Green QPCR Master Mix	Not applicable.					
Auto-ignition temperature	: Ingredient name	°C	°F	Method			
	2X Brilliant III SYBR® Green QPCR Master Mix						
	Dimethyl sulfoxide	300 to 302	572 to 575.6				
	Glycerol	370	698				
Decomposition temperature	: Reference Dye	Not available.					
	2X Brilliant III SYBR® Green QPCR Master Mix	Not available.					
Viscosity	: Reference Dye	Not available.					
	2X Brilliant III SYBR® Green QPCR Master Mix	Not available.					
Particle characteristics							
Median particle size	: Reference Dye	Not applicable.					
	2X Brilliant III SYBR® Green QPCR Master Mix	Not applicable.					

Section 10. Stability and reactivity

Reactivity	: Reference Dye	No specific test data related to reactivity available for this product or its ingredients.					
	2X Brilliant III SYBR® Green QPCR Master Mix	No specific test data related to reactivity available for this product or its ingredients.					
Chemical stability	: Reference Dye	The product is stable.					
	2X Brilliant III SYBR® Green QPCR Master Mix	The product is stable.					
Possibility of hazardous reactions	: Reference Dye	Under normal conditions of storage and use, hazardous reactions will not occur.					
	2X Brilliant III SYBR® Green QPCR Master Mix	Under normal conditions of storage and use, hazardous reactions will not occur.					

Section 10. Stability and reactivity

Conditions to avoid	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No specific data. No specific data.
Incompatible materials	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
Hazardous decomposition products	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	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 SYBR® Green QPCR Master Mix Glycerol	LD50 Oral	Rat	12600 mg/kg	-
	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2X Brilliant III 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

Section 11. Toxicological information

Not available.

Information on likely routes of exposure : Reference Dye Not available.
2X Brilliant III SYBR® Green Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
QPCR Master Mix

Potential acute health effects

Eye contact : Reference Dye No known significant effects or critical hazards.
2X Brilliant III SYBR® Green Causes eye irritation.
QPCR Master Mix

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Reference Dye No specific data.
2X Brilliant III SYBR® Green Adverse symptoms may include the following:
QPCR Master Mix

irritation
watering
redness

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

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

Ingestion : Reference Dye No specific data.
2X Brilliant III SYBR® Green No specific data.
QPCR Master Mix

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

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

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

Section 11. Toxicological information

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

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)
2X Brilliant III SYBR® Green QPCR Master Mix					
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
2X Brilliant III SYBR® Green QPCR Master Mix			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	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
	Chronic NOEC 100 µl/L Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	21 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2X Brilliant III SYBR® Green QPCR Master Mix				
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
2X Brilliant III SYBR® Green QPCR Master Mix			
Dimethyl sulfoxide	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2X Brilliant III SYBR® Green QPCR Master Mix			
Glycerol	-1.76	-	low
Dimethyl sulfoxide	-1.35	3.16	low

Section 12. Ecological information

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. 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.

Canada : Not determined.

Section 15. Regulatory information

China	: <input checked="" type="checkbox"/> Not determined.
Eurasian Economic Union	: <input checked="" type="checkbox"/> Russian Federation inventory: All components are listed or exempted.
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
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	: 28/03/2023
Date of previous issue	: 13/03/2020
Version	: 7

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
<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix 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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