

SAFETY DATA SHEET



QPCR NGS Library Quant Kit - Illumina GA, Part Number G4880A

Section 1. Identification

Product identifier : QPCR NGS Library Quant Kit - Illumina GA, Part Number G4880A
Part no. (chemical kit) : G4880A
Part no. : 2X Brilliant III SYBR® Green QPCR Master Mix 600882-51
Reference Dye 600530-53
50X Illumina GA Primer Mix 5190-2375
100 pM Illumina DNA Standard 5190-2376
200X Dilution Buffer 5190-2377
10X GC Additive 5190-2378

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

Material uses : Analytical reagent.
2X Brilliant III SYBR® Green QPCR Master Mix 2 x 2.0 ml
Reference Dye 0.1 ml
50x Illumina GA Primer Mix 0.2 ml
100 pM Illumina DNA Standard 0.02 ml
200x Dilution Buffer 2 x 0.5 ml
10X GC Additive 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

10X GC Additive
H302

ACUTE TOXICITY (oral) - Category 4

<input checked="" type="checkbox"/> 2X Brilliant III SYBR® Green QPCR 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%
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%
200X Dilution Buffer	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown oral 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

Section 2. Hazard(s) identification

Hazard pictograms : 10X GC Additive



Signal word : Brilliant III SYBR® Green QPCR Master Mix Reference Dye No signal word.
 50X Illumina GA Primer Mix No signal word.
 100 pM Illumina DNA Standard No signal word.
 200X Dilution Buffer No signal word.
 10X GC Additive WARNING

Hazard statements : Brilliant III SYBR® Green QPCR Master Mix Reference Dye No known significant effects or critical hazards.
 50X Illumina GA Primer Mix No known significant effects or critical hazards.
 100 pM Illumina DNA Standard No known significant effects or critical hazards.
 200X Dilution Buffer No known significant effects or critical hazards.
 10X GC Additive H302 - Harmful if swallowed.

Precautionary statements

Prevention : Brilliant III SYBR® Green QPCR Master Mix Reference Dye Not applicable.
 50X Illumina GA Primer Mix Not applicable.
 100 pM Illumina DNA Standard Not applicable.
 200X Dilution Buffer Not applicable.
 10X GC Additive P270 - Do not eat, drink or smoke when using this product.
P264 - Wash hands thoroughly after handling.

Response : Brilliant III SYBR® Green QPCR Master Mix Reference Dye Not applicable.
 50X Illumina GA Primer Mix Not applicable.
 100 pM Illumina DNA Standard Not applicable.
 200X Dilution Buffer Not applicable.
 10X GC Additive P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
Rinse mouth.

Storage : Brilliant III SYBR® Green QPCR Master Mix Reference Dye Not applicable.
 50X Illumina GA Primer Mix Not applicable.
 100 pM Illumina DNA Standard Not applicable.
 200X Dilution Buffer Not applicable.
 10X GC Additive Not applicable.

Disposal : Brilliant III SYBR® Green QPCR Master Mix Reference Dye Not applicable.
 50X Illumina GA Primer Mix Not applicable.
 100 pM Illumina DNA Standard Not applicable.
 200X Dilution Buffer Not applicable.
 10X GC Additive P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 2. Hazard(s) identification

Supplemental label elements

Additional warning phrases	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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Other hazards which do not result in classification	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	None known. None known. None known. None known. None known. None known.
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Section 3. Composition and ingredient information

Substance/mixture	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Mixture Mixture Mixture Mixture Mixture Mixture
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CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix		
Glycerol	≥10 - ≤30	56-81-5
Dimethyl sulfoxide	≤10	67-68-5
10X GC Additive		
Ethanediol	≥30 - ≤60	107-21-1

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	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA	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. 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. 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. 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.
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Section 4. First aid measures

	Standard	occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	200X Dilution Buffer	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.
	10X GC Additive	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. Get medical attention if irritation occurs.
Inhalation	: 2X Brilliant III SYBR® Green QPCR Master Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Reference Dye	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	50X Illumina GA Primer Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	100 pM Illumina DNA Standard	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	200X Dilution Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	10X GC Additive	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.
Skin contact	: 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.
	Reference Dye	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	50X Illumina GA Primer Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	100 pM Illumina DNA Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	200X Dilution Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	10X GC Additive	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.

Section 4. First aid measures

Ingestion	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Reference Dye	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	50X Illumina GA Primer 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.
	100 pM Illumina DNA Standard	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.
	200X Dilution Buffer	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.
	10X GC Additive	Wash out mouth with water. Remove dentures if any. 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. 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 necessary, call a poison center or physician. 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	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	50X Illumina GA Primer Mix	No known significant effects or critical hazards.
	100 pM Illumina DNA Standard	No known significant effects or critical hazards.
	200X Dilution Buffer	No known significant effects or critical hazards.
	10X GC Additive	No known significant effects or critical hazards.

Section 4. First aid measures

Inhalation	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green	No known significant effects or critical hazards.
		QPCR Master Mix	
		Reference Dye	No known significant effects or critical hazards.
		50X Illumina GA Primer Mix	No known significant effects or critical hazards.
		100 pM Illumina DNA Standard	No known significant effects or critical hazards.
		200X Dilution Buffer	No known significant effects or critical hazards.
Skin contact	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green	No known significant effects or critical hazards.
		QPCR Master Mix	
		Reference Dye	No known significant effects or critical hazards.
		50X Illumina GA Primer Mix	No known significant effects or critical hazards.
		100 pM Illumina DNA Standard	No known significant effects or critical hazards.
		200X Dilution Buffer	No known significant effects or critical hazards.
Ingestion	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green	No known significant effects or critical hazards.
		QPCR Master Mix	
		Reference Dye	No known significant effects or critical hazards.
		50X Illumina GA Primer Mix	No known significant effects or critical hazards.
		100 pM Illumina DNA Standard	No known significant effects or critical hazards.
		200X Dilution Buffer	No known significant effects or critical hazards.
		10X GC Additive	Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green	No specific data.
		QPCR Master Mix	
		Reference Dye	No specific data.
		50X Illumina GA Primer Mix	No specific data.
		100 pM Illumina DNA Standard	No specific data.
		200X Dilution Buffer	No specific data.
Inhalation	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green	No specific data.
		QPCR Master Mix	
		Reference Dye	No specific data.
		50X Illumina GA Primer Mix	No specific data.
		100 pM Illumina DNA Standard	No specific data.
		200X Dilution Buffer	No specific data.
Skin contact	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green	No specific data.
		QPCR Master Mix	
		Reference Dye	No specific data.
		50X Illumina GA Primer Mix	No specific data.
		100 pM Illumina DNA Standard	No specific data.
		200X Dilution Buffer	No specific data.
Ingestion	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green	No specific data.
		QPCR Master Mix	
		Reference Dye	No specific data.
		50X Illumina GA Primer Mix	No specific data.
		100 pM Illumina DNA Standard	No specific data.
		200X Dilution Buffer	No specific data.
		10X GC Additive	No specific data.

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

Section 4. First aid measures

Notes to physician	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	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. 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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	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. 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	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	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. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
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Section 5. Firefighting measures

Unsuitable extinguishing media	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	None known. None known. None known. None known. None known. None known.
Specific hazards arising from the chemical	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	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. 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	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides halogenated compounds metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides No specific data. No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide Decomposition products may include the following materials: carbon dioxide carbon monoxide
Special protective actions for fire-fighters	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. 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

Section 5. Firefighting measures

Special protective equipment for fire-fighters

200X Dilution Buffer	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.
10X GC Additive	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.
<input checked="" type="checkbox"/> 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.
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.
50X Illumina GA Primer Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
100 pM Illumina DNA Standard	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
200X Dilution Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
10X GC Additive	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

<input checked="" type="checkbox"/> 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. 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.
50X Illumina GA Primer 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.
100 pM Illumina DNA Standard	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.
200X Dilution Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding

Section 6. Accidental release measures

		<p>areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.</p> <p>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.</p>
	10X GC Additive	
For emergency responders :	<p><input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix</p> <p>Reference Dye</p> <p>50X Illumina GA Primer Mix</p> <p>100 pM Illumina DNA Standard</p> <p>200X Dilution Buffer</p> <p>10X GC Additive</p>	<p>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".</p> <p>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".</p> <p>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".</p> <p>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".</p> <p>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".</p> <p>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".</p>
Environmental precautions :	<p><input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix</p> <p>Reference Dye</p> <p>50X Illumina GA Primer Mix</p> <p>100 pM Illumina DNA Standard</p> <p>200X Dilution Buffer</p> <p>10X GC Additive</p>	<p>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).</p> <p>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).</p> <p>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).</p> <p>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).</p> <p>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).</p> <p>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).</p>

Section 6. Accidental release measures

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	: <input checked="" type="checkbox"/> 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.
	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.
	50X Illumina GA Primer 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.
	100 pM Illumina DNA Standard	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.
	200X Dilution Buffer	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.
	10X GC Additive	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	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix	Put on appropriate personal protective equipment (see Section 8).
	Reference Dye	Put on appropriate personal protective equipment (see Section 8).
	50X Illumina GA Primer Mix	Put on appropriate personal protective equipment (see Section 8).
	100 pM Illumina DNA Standard	Put on appropriate personal protective equipment (see Section 8).
	200X Dilution Buffer	Put on appropriate personal protective equipment (see Section 8).
	10X GC Additive	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

Section 7. Handling and storage

Advice on general occupational hygiene

:  X Brilliant III SYBR® Green QPCR Master Mix	reuse container. 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.
50X Illumina GA Primer 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.
100 pM Illumina DNA Standard	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.
200X Dilution Buffer	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.
10X GC Additive	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

:  X 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.
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

Section 7. Handling and storage

50X Illumina GA Primer Mix

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.

100 pM Illumina DNA Standard

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.

200X Dilution Buffer

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.

10X GC Additive

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
<p>2X Brilliant III SYBR® Green QPCR Master Mix Glycerol Dimethyl sulfoxide</p>	<p>Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m³ 8 hours. DFG MAC-values list (Germany, 7/2017). Absorbed through skin. PEAK: 320 mg/m³, 4 times per shift, 15 minutes. TWA: 160 mg/m³ 8 hours. PEAK: 100 ppm, 4 times per shift, 15</p>

Section 8. Exposure controls and personal protection

<p>10X GC Additive Ethanediol</p>	<p>minutes. TWA: 50 ppm 8 hours.</p> <p>Safe Work Australia (Australia, 1/2014). Absorbed through skin. TWA: 10 mg/m³ 8 hours. Form: Particulate STEL: 104 mg/m³ 15 minutes. Form: Vapour TWA: 52 mg/m³ 8 hours. Form: Vapour TWA: 20 ppm 8 hours. Form: Vapour STEL: 40 ppm 15 minutes. Form: Vapour</p>
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- 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. 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

Appearance

Physical state	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Liquid. Liquid. Liquid. Liquid. Liquid. Liquid.
Colour	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. Not available. Not available. Not available. Not available.
Odour	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. Not available. Not available. Not available. Not available.
Odour threshold	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. Not available. Not available. Not available. Not available.
pH	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	7.8 8 Not available. Not available. Not available. Not available.
Melting point	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. 0°C (32°F) 0°C (32°F) Not available. Not available.
Boiling point	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. 100°C (212°F) 100°C (212°F) Not available. Not available.

Section 9. Physical and chemical properties

Flash point	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50X Illumina GA Primer Mix	Not available.
	100 pM Illumina DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.
Evaporation rate	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50X Illumina GA Primer Mix	Not available.
	100 pM Illumina DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.
Flammability (solid, gas)	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	Not applicable.
	QPCR Master Mix	
	Reference Dye	Not applicable.
	50X Illumina GA Primer Mix	Not applicable.
	100 pM Illumina DNA Standard	Not applicable.
	200X Dilution Buffer	Not applicable.
	10X GC Additive	Not applicable.
Lower and upper explosive (flammable) limits	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50X Illumina GA Primer Mix	Not available.
	100 pM Illumina DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.
Vapour pressure	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50X Illumina GA Primer Mix	Not available.
	100 pM Illumina DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.
Vapour density	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50X Illumina GA Primer Mix	Not available.
	100 pM Illumina DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.
Relative density	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50X Illumina GA Primer Mix	Not available.
	100 pM Illumina DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.

Section 9. Physical and chemical properties

Solubility	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	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. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. Not available. Not available. Not available. Not available.
Auto-ignition temperature	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. Not available. Not available. Not available. Not available.
Decomposition temperature	: 2× Brilliant III Ultra-Fast SYBR Green QPCR Master Mix Reference dye, 1mM 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive	Not available. Not available. Not available. Not available. Not available.
Viscosity	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. Not available. Not available. Not available. Not available.

Section 10. Stability and reactivity

Reactivity	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	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. 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.
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Section 10. Stability and reactivity

Chemical stability	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
Possibility of hazardous reactions	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	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. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Incompatible materials	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	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. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
Hazardous decomposition products	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50X Illumina GA Primer Mix 100 pM Illumina DNA Standard 200X Dilution Buffer 10X GC Additive	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. 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	-
10X GC Additive Ethanediol	LD50 Oral	Rat	4700 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 milligrams	-	
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-	
	Dimethyl sulfoxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
		Eyes - Mild irritant	Rabbit	-	100 milligrams	-
		Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
		Skin - Mild irritant	Rabbit	-	100 milligrams	-
10X GC Additive Ethanediol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-	
	Eyes - Mild irritant	Rabbit	-	1 hours 100 milligrams	-	
	Eyes - Moderate irritant	Rabbit	-	6 hours 1440 milligrams	-	
	Skin - Mild irritant	Rabbit	-	555 milligrams	-	

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	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	Routes of entry anticipated: Oral, Dermal, Inhalation.
	QPCR Master Mix	
	Reference Dye	Routes of entry anticipated: Oral, Dermal, Inhalation.
	50X Illumina GA Primer Mix	Not available.
	100 pM Illumina DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	No known significant effects or critical hazards.
	QPCR Master Mix	
	Reference Dye	No known significant effects or critical hazards.
	50X Illumina GA Primer Mix	No known significant effects or critical hazards.
	100 pM Illumina DNA Standard	No known significant effects or critical hazards.
	200X Dilution Buffer	No known significant effects or critical hazards.
	10X GC Additive	No known significant effects or critical hazards.
Inhalation	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	No known significant effects or critical hazards.
	QPCR Master Mix	
	Reference Dye	No known significant effects or critical hazards.
	50X Illumina GA Primer Mix	No known significant effects or critical hazards.
	100 pM Illumina DNA Standard	No known significant effects or critical hazards.
	200X Dilution Buffer	No known significant effects or critical hazards.
	10X GC Additive	No known significant effects or critical hazards.
Skin contact	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	No known significant effects or critical hazards.
	QPCR Master Mix	
	Reference Dye	No known significant effects or critical hazards.
	50X Illumina GA Primer Mix	No known significant effects or critical hazards.
	100 pM Illumina DNA Standard	No known significant effects or critical hazards.
	200X Dilution Buffer	No known significant effects or critical hazards.
	10X GC Additive	No known significant effects or critical hazards.
Ingestion	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	No known significant effects or critical hazards.
	QPCR Master Mix	
	Reference Dye	No known significant effects or critical hazards.
	50X Illumina GA Primer Mix	No known significant effects or critical hazards.
	100 pM Illumina DNA Standard	No known significant effects or critical hazards.
	200X Dilution Buffer	No known significant effects or critical hazards.
	10X GC Additive	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	No specific data.
	QPCR Master Mix	
	Reference Dye	No specific data.
	50X Illumina GA Primer Mix	No specific data.
	100 pM Illumina DNA Standard	No specific data.
	200X Dilution Buffer	No specific data.
	10X GC Additive	No specific data.
Inhalation	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	No specific data.
	QPCR Master Mix	
	Reference Dye	No specific data.
	50X Illumina GA Primer Mix	No specific data.
	100 pM Illumina DNA Standard	No specific data.
	200X Dilution Buffer	No specific data.
	10X GC Additive	No specific data.

Section 11. Toxicological information

Skin contact	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green	No specific data.
		QPCR Master Mix	
		Reference Dye	No specific data.
		50X Illumina GA Primer Mix	No specific data.
		100 pM Illumina DNA Standard	No specific data.
		200X Dilution Buffer	No specific data.
		10X GC Additive	No specific data.
Ingestion	:	<input checked="" type="checkbox"/> Brilliant III SYBR® Green	No specific data.
		QPCR Master Mix	
		Reference Dye	No specific data.
		50X Illumina GA Primer Mix	No specific data.
		100 pM Illumina DNA Standard	No specific data.
		200X Dilution Buffer	No specific data.
		10X GC Additive	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 : Brilliant III SYBR® Green No known significant effects or critical hazards.
 QPCR Master Mix
 Reference Dye No known significant effects or critical hazards.
 50X Illumina GA Primer Mix No known significant effects or critical hazards.
 100 pM Illumina DNA Standard No known significant effects or critical hazards.
 200X Dilution Buffer No known significant effects or critical hazards.
 10X GC Additive No known significant effects or critical hazards.

Carcinogenicity : Brilliant III SYBR® Green No known significant effects or critical hazards.
 QPCR Master Mix
 Reference Dye No known significant effects or critical hazards.
 50X Illumina GA Primer Mix No known significant effects or critical hazards.
 100 pM Illumina DNA Standard No known significant effects or critical hazards.
 200X Dilution Buffer No known significant effects or critical hazards.
 10X GC Additive No known significant effects or critical hazards.

Mutagenicity : Brilliant III SYBR® Green No known significant effects or critical hazards.
 QPCR Master Mix
 Reference Dye No known significant effects or critical hazards.
 50X Illumina GA Primer Mix No known significant effects or critical hazards.
 100 pM Illumina DNA Standard No known significant effects or critical hazards.
 200X Dilution Buffer No known significant effects or critical hazards.
 10X GC Additive No known significant effects or critical hazards.

Teratogenicity : Brilliant III SYBR® Green No known significant effects or critical hazards.
 QPCR Master Mix
 Reference Dye No known significant effects or critical hazards.
 50X Illumina GA Primer Mix No known significant effects or critical hazards.
 100 pM Illumina DNA Standard No known significant effects or critical hazards.
 200X Dilution Buffer No known significant effects or critical hazards.
 10X GC Additive No known significant effects or critical hazards.

Section 11. Toxicological information

Developmental effects	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	No known significant effects or critical hazards.
	QPCR Master Mix	
	Reference Dye	No known significant effects or critical hazards.
	50X Illumina GA Primer Mix	No known significant effects or critical hazards.
	100 pM Illumina DNA Standard	No known significant effects or critical hazards.
Fertility effects	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	No known significant effects or critical hazards.
	QPCR Master Mix	
	Reference Dye	No known significant effects or critical hazards.
	50X Illumina GA Primer Mix	No known significant effects or critical hazards.
	100 pM Illumina DNA Standard	No known significant effects or critical hazards.
	200X Dilution Buffer	No known significant effects or critical hazards.
	10X GC Additive	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
10X GC Additive Oral	956 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Glycerol Dimethyl sulfoxide	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 18299 µg/l Marine water	Algae - Nitzschia pungens	96 hours
	Acute LC50 37.437 mg/l Marine water	Crustaceans - Artemia sp.	48 hours
	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 3323 µg/l Marine water	Algae - Nitzschia pungens	96 hours
10X GC Additive Ethanediol	Acute LC50 6900000 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 41000000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 8050000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
	10X GC Additive Ethanediol	OECD 301C Ready	90 to 100 % - 10 days	-

Section 12. Ecological information

	Biodegradability - Modified MITI Test (I)		
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
10X GC Additive Ethenediol	-	-	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
10X GC Additive Ethenediol	-1.36	-	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. 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 Annex II of Marpol and the IBC Code : Not available.

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

6

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

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.
Taiwan	: Not determined.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 30/08/2018

Date of previous issue : 22/02/2016

Version : 5

Key to abbreviations

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

Section 16. Any other relevant information

SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
10X GC Additive Acute Tox. 4, H302	Calculation method

References : Not available.

 Indicates information that has changed from previously issued version.

Notice to reader

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