

SAFETY DATA SHEET

QPCR NGS Library Quant Kit AB SOLiD, Part Number G4881A

Section 1. Identification

1.1 Product identifier

Product name	: QPCR NGS Library Quant Kit AB SOLiD, Part Number G4881A	
Part no. (chemical kit)	: G4881A	
Part no.	: 2X Brilliant III SYBR® Green QPCR Master Mix	600882-51
	Reference Dye	600530-53
	50x AB SOLiD Primer Mix	5190-2391
	100 pM AB SOLiD DNA Standard	5190-2392
	200X Dilution Buffer	5190-2377
	10X GC Additive	5190-2378

Validation date : 7/3/2018

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

Material uses	: <input checked="" type="checkbox"/> Analytical reagent.	
	<input checked="" type="checkbox"/> 2X Brilliant III SYBR® Green QPCR Master Mix	2 ml
	Reference Dye	0.1 ml (100 µl 1 mM)
	50x AB SOLiD Primer Mix	0.2 ml
	100 pM AB SOLiD DNA Standard	0.02 ml
	200X Dilution Buffer	0.5 ml
	10X GC Additive	1 ml

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	50x AB SOLiD Primer Mix	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	100 pM AB SOLiD DNA Standard	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to

Section 2. Hazards identification

the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

200X Dilution Buffer

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

10X GC Additive

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

2X Brilliant III SYBR® Green

QPCR Master Mix

H320

EYE IRRITATION - Category 2B

10X GC Additive

H302

ACUTE TOXICITY (oral) - Category 4

H319

EYE IRRITATION - Category 2A

H371

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (kidneys) - Category 2

H335

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Ingredients of unknown toxicity

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%

Percentage of the mixture consisting of ingredient (s) of unknown oral toxicity: 1 - 10%

200X Dilution Buffer

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%

10X GC Additive

Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 30 - 60%

Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 30 - 60%

Reference Dye

Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 2.4%

2.2 GHS label elements

Hazard pictograms

10X GC Additive



Signal word

2X Brilliant III SYBR® Green
QPCR Master Mix
Reference Dye
50x AB SOLiD Primer Mix
100 pM AB SOLiD DNA Standard
200X Dilution Buffer
10X GC Additive

Warning

No signal word.

No signal word.

No signal word.

No signal word.

Warning

Section 2. Hazards identification

Hazard statements	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	H320 - Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. H302 - Harmful if swallowed. H319 - Causes serious eye irritation. H371 - May cause damage to organs. (kidneys) H335 - May cause respiratory irritation.
Precautionary statements		
Prevention	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	P264 - Wash hands thoroughly after handling. Not applicable. Not applicable. Not applicable. Not applicable. P280 - Wear eye or face protection. P271 - Use only outdoors or in a well-ventilated area. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling.
Response	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention. Not applicable. Not applicable. Not applicable. Not applicable. P308 + P311 - IF exposed or concerned: Call a POISON CENTER or physician. P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
Storage	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P405 - Store locked up.
Disposal	:	

Section 2. Hazards identification

	2X Brilliant III SYBR® Green	Not applicable.
	QPCR Master Mix	
	Reference Dye	Not applicable.
	50x AB SOLiD Primer Mix	Not applicable.
	100 pM AB SOLiD 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.
Supplemental label elements	: 2X Brilliant III SYBR® Green	None known.
	QPCR Master Mix	
	Reference Dye	None known.
	50x AB SOLiD Primer Mix	None known.
	100 pM AB SOLiD DNA Standard	None known.
	200X Dilution Buffer	None known.
	10X GC Additive	None known.

2.3 Other hazards

Hazards not otherwise classified	: 2X Brilliant III SYBR® Green	None known.
	QPCR Master Mix	
	Reference Dye	None known.
	50x AB SOLiD Primer Mix	None known.
	100 pM AB SOLiD DNA Standard	None known.
	200X Dilution Buffer	None known.
	10X GC Additive	None known.

Section 3. Composition/information on ingredients

Substance/mixture	: 2X Brilliant III SYBR® Green QPCR Master Mix	Mixture
	Reference Dye	Mixture
	50x AB SOLiD Primer Mix	Mixture
	100 pM AB SOLiD DNA Standard	Mixture
	200X Dilution Buffer	Mixture
	10X GC Additive	Mixture

Ingredient name	%	CAS number
2X Brilliant III SYBR® Green QPCR Master Mix		
Glycerol	≥10 - ≤25	56-81-5
Dimethyl sulfoxide	≤10	67-68-5
Potassium chloride	≤3	7447-40-7
Reference Dye		
Potassium chloride	≤5	7447-40-7
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	≤3	1185-53-1
10X GC Additive		
Ethenediol	≥50 - ≤75	107-21-1



Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

4.1 Description of necessary first aid measures

Eye contact	:  Brilliant III SYBR® Green QPCR Master Mix	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.
	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.
	50x AB SOLiD Primer Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	100 pM AB SOLiD DNA Standard	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.
	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 necessary, call a poison center or physician.
Inhalation	:  Brilliant III SYBR® Green QPCR Master Mix	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.
	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 AB SOLiD 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 AB SOLiD 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 it is

Section 4. First aid measures

suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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

Reference Dye

50x AB SOLiD Primer Mix

100 pM AB SOLiD DNA Standard

200X Dilution Buffer

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.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : 2X Brilliant III SYBR® Green QPCR Master Mix

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 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.

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

Section 4. First aid measures

50x AB SOLiD Primer Mix	<p>unless directed to do so by medical personnel. Get medical attention if symptoms occur.</p> <p>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.</p>
100 pM AB SOLiD DNA Standard	<p>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.</p>
200X Dilution Buffer	<p>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.</p>
10X GC Additive	<p>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.</p>

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	<p>: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive</p>	<p>Causes eye irritation.</p> <p>No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes serious eye irritation.</p>
Inhalation	<p>: <input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive</p>	<p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. May cause respiratory irritation.</p>

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Skin contact : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Ingestion : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : ~~2~~X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive

Adverse symptoms may include the following:
irritation
watering
redness
No specific data.
No specific data.
No specific data.
No specific data.
Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : ~~2~~X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive

No specific data.
No specific data.
No specific data.
No specific data.
No specific data.
Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive

No specific data.
No specific data.
No specific data.
No specific data.
No specific data.

Ingestion : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive

No specific data.
No specific data.
No specific data.
No specific data.
No specific data.

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

Section 4. First aid measures

Notes to physician	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD 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	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: 2 X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. No action shall be taken involving any personal risk or without suitable training. 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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard	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. Fire-fighting measures

	200X Dilution Buffer	Use an extinguishing agent suitable for the surrounding fire.
	10X GC Additive	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	None known. None known. None known. None known. None known. None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	In a fire or if heated, a pressure increase will occur and the container may burst.
	50x AB SOLiD Primer Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	100 pM AB SOLiD DNA Standard	In a fire or if heated, a pressure increase will occur and the container may burst.
	200X Dilution Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	10X GC Additive	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: 2X Brilliant III SYBR® Green QPCR Master Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides halogenated compounds metal oxide/oxides
	Reference Dye	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer	No specific data. No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide
	10X GC Additive	Decomposition products may include the following materials: carbon dioxide carbon monoxide

5.3 Advice for firefighters

Section 5. Fire-fighting measures

Special protective actions for fire-fighters	: 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.
	Reference Dye	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	50x AB SOLiD Primer 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.
	100 pM AB SOLiD 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.
	200X Dilution Buffer	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.
Special protective equipment for fire-fighters	: 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.
	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 AB SOLiD 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 AB SOLiD 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

6.1 Personal precautions, protective equipment and emergency procedures

Section 6. Accidental release measures

For non-emergency personnel

: 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Reference Dye

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

50x AB SOLiD 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 spilled material. Put on appropriate personal protective equipment.

100 pM AB SOLiD 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 spilled 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 areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

10X GC Additive

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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

: 2X Brilliant III SYBR® Green
QPCR Master Mix

If specialized 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". If specialized 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". If specialized 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". If specialized 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". If specialized clothing is required to deal with the

Reference Dye

50x AB SOLiD Primer Mix

100 pM AB SOLiD DNA Standard

200X Dilution Buffer

Section 6. Accidental release measures

	10X GC Additive	spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized 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".
6.2 Environmental precautions	: 2X Brilliant III SYBR® Green QPCR Master Mix	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Reference Dye	Avoid dispersal of spilled 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).
	50x AB SOLiD Primer Mix	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	100 pM AB SOLiD DNA Standard	Avoid dispersal of spilled 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).
	200X Dilution Buffer	Avoid dispersal of spilled 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).
	10X GC Additive	Avoid dispersal of spilled 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).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	: 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.
	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 AB SOLiD 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.

Section 6. Accidental release measures

100 pM AB SOLiD DNA Standard	disposal contractor. 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

7.1 Precautions for safe handling

Protective measures	: 2X Brilliant III SYBR® Green QPCR Master Mix	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Reference Dye	Put on appropriate personal protective equipment (see Section 8).
	50x AB SOLiD Primer Mix	Put on appropriate personal protective equipment (see Section 8).
	100 pM AB SOLiD 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 get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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	: 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.
	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

Section 7. Handling and storage

	<p>50x AB SOLiD Primer Mix</p> <p>100 pM AB SOLiD DNA Standard</p> <p>200X Dilution Buffer</p> <p>10X GC Additive</p>	<p>before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face 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.</p>
<p>7.2 Conditions for safe storage, including any incompatibilities</p>	<p>:  Brilliant III SYBR® Green QPCR Master Mix</p> <p>Reference Dye</p> <p>50x AB SOLiD Primer Mix</p>	<p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p> <p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p> <p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from</p>

Section 7. Handling and storage

100 pM AB SOLiD DNA Standard	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 unlabeled 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 unlabeled 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 unlabeled 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. Store locked up. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations

: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	Industrial applications, Professional applications.
50x AB SOLiD Primer Mix	Industrial applications, Professional applications.
100 pM AB SOLiD DNA Standard	Industrial applications, Professional applications.
200X Dilution Buffer	Industrial applications, Professional applications.
10X GC Additive	Industrial applications, Professional applications.

Industrial sector specific solutions

: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	Not applicable.
50x AB SOLiD Primer Mix	Not applicable.
100 pM AB SOLiD DNA Standard	Not applicable.
200X Dilution Buffer	Not applicable.
10X GC Additive	Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
<p>2X Brilliant III SYBR® Green QPCR Master Mix Glycerol</p> <p>Dimethyl sulfoxide</p> <p>Potassium chloride</p> <p>Reference Dye Potassium chloride 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</p> <p>10X GC Additive Ethenediol</p>	<p>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust</p> <p>OSHA PEL (United States, 6/2016). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust</p> <p>AIHA WEEL (United States, 10/2011). TWA: 250 ppm 8 hours. None.</p> <p>None. None.</p> <p>OSHA PEL 1989 (United States, 3/1989). CEIL: 50 ppm CEIL: 125 mg/m³</p> <p>ACGIH TLV (United States, 3/2017). STEL: 10 mg/m³ 15 minutes. Form: Inhalable fraction. Aerosol only. STEL: 50 ppm 15 minutes. Form: Vapor fraction TWA: 25 ppm 8 hours. Form: Vapor fraction</p>

8.2 Exposure controls

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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

Section 8. Exposure controls/personal 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

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: 2X Brilliant III SYBR® Green QPCR Master Mix	Liquid.
	Reference Dye	Liquid.
	50x AB SOLiD Primer Mix	Liquid.
	100 pM AB SOLiD DNA Standard	Liquid.
	200X Dilution Buffer	Liquid.
	10X GC Additive	Liquid.
Color	: 2X Brilliant III SYBR® Green QPCR Master Mix	Not available.
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	Not available.
	100 pM AB SOLiD DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.
Odor	: 2X Brilliant III SYBR® Green QPCR Master Mix	Not available.
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	Not available.
	100 pM AB SOLiD DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.
Odor threshold	: 2X Brilliant III SYBR® Green QPCR Master Mix	Not available.
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	Not available.
	100 pM AB SOLiD DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.
pH	: 2X Brilliant III SYBR® Green QPCR Master Mix	7.8
	Reference Dye	8
	50x AB SOLiD Primer Mix	Not available.
	100 pM AB SOLiD DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.

Section 9. Physical and chemical properties

Melting point	: 2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	0°C (32°F)
	100 pM AB SOLiD DNA Standard	0°C (32°F)
	200X Dilution Buffer	Not available.
Boiling point	: 2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	100°C (212°F)
	100 pM AB SOLiD DNA Standard	100°C (212°F)
	200X Dilution Buffer	Not available.
Flash point	: 2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	Not available.
	100 pM AB SOLiD DNA Standard	Not available.
	200X Dilution Buffer	Not available.
Evaporation rate	: 2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	Not available.
	100 pM AB SOLiD DNA Standard	Not available.
	200X Dilution Buffer	Not available.
Flammability (solid, gas)	: 2X Brilliant III SYBR® Green	Not applicable.
	QPCR Master Mix	
	Reference Dye	Not applicable.
	50x AB SOLiD Primer Mix	Not applicable.
	100 pM AB SOLiD DNA Standard	Not applicable.
	200X Dilution Buffer	Not applicable.
Lower and upper explosive (flammable) limits	: 2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	Not available.
	100 pM AB SOLiD DNA Standard	Not available.
	200X Dilution Buffer	Not available.
Vapor pressure	: 2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	Not available.
	100 pM AB SOLiD DNA Standard	Not available.
	200X Dilution Buffer	Not available.
Vapor density	: 2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	Not available.
	100 pM AB SOLiD DNA Standard	Not available.
	200X Dilution Buffer	Not available.
	10X GC Additive	Not available.

Section 9. Physical and chemical properties

Relative density	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. Not available. Not available. Not available. Not available.
Solubility	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD 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	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. Not available. Not available. Not available. Not available.
Auto-ignition temperature	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. Not available. Not available. Not available. Not available.
Decomposition temperature	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	Not available. Not available. Not available. Not available. Not available. Not available.
Viscosity	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD 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

10.1 Reactivity	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard	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

	200X Dilution Buffer	No specific test data related to reactivity available for this product or its ingredients.
	10X GC Additive	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD 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.
10.3 Possibility of hazardous reactions	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD 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.
10.4 Conditions to avoid	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD 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.
10.5 Incompatible materials	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard	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,

Section 10. Stability and reactivity

200X Dilution Buffer

hazardous decomposition products should not be produced.

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

10X GC Additive

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 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	-
Dimethyl sulfoxide	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-
Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-
Reference Dye				
Potassium chloride	LD50 Oral	Rat	2600 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	-
Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Reference Dye					
Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 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	-

Section 11. Toxicological information

	Skin - Mild irritant	Rabbit	-	555 milligrams	-
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Sensitization

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)

Name	Category	Route of exposure	Target organs
<input checked="" type="checkbox"/> Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation
10X GC Additive Ethanediol	Category 2 Category 3	Oral Not applicable.	kidneys Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure	: 2X Brilliant III SYBR® Green	Routes of entry anticipated: Oral, Dermal, Inhalation.
	QPCR Master Mix	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Reference Dye	Not available.
	50x AB SOLiD Primer Mix	Not available.
	100 pM AB SOLiD DNA Standard	Routes of entry anticipated: Oral, Dermal, Inhalation.
	200X Dilution Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
	10X GC Additive	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact	: <input checked="" type="checkbox"/> Brilliant III SYBR® Green	Causes eye irritation.
	QPCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
	50x AB SOLiD Primer Mix	No known significant effects or critical hazards.
	100 pM AB SOLiD DNA Standard	No known significant effects or critical hazards.
	200X Dilution Buffer	No known significant effects or critical hazards.
	10X GC Additive	Causes serious eye irritation.

Section 11. Toxicological information

Inhalation	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. May cause respiratory irritation.
Skin contact	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	Adverse symptoms may include the following: irritation watering redness No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD 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.

Section 11. Toxicological information

Ingestion	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD 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.
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Delayed and immediate effects and also 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

Conclusion/Summary : Not available.

General	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Section 11. Toxicological information

Developmental effects	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
2X Brilliant III SYBR® Green QPCR Master Mix Oral	183001.9 mg/kg
Reference Dye Oral	70270.3 mg/kg
10X GC Additive Oral	956 mg/kg

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2X Brilliant III SYBR® Green QPCR Master Mix Glycerol Dimethyl sulfoxide	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 25000 ppm Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Potassium chloride	Acute LC50 34000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 100 ul/L Marine water	Algae - Ulva lactuca	72 hours
	Acute EC50 1337000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
Reference Dye Potassium chloride	Acute EC50 141460 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 12.92 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
	Acute LC50 880 mg/l Fresh water	Fish - Pimephales promelas	96 hours
Reference Dye Potassium chloride	Acute EC50 1337000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 141460 µg/l Fresh water Acute LC50 12.92 mg/l Fresh water	Daphnia - Daphnia magna Crustaceans - Pseudosida ramosa - Neonate	48 hours 48 hours

Section 12. Ecological information

10X GC Additive Ethenediol	Acute LC50 880 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	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

12.2 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	-	-
10X GC Additive Ethenediol	OECD 301C Ready Biodegradability - Modified MITI Test (I)	90 to 100 % - 10 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2X Brilliant III SYBR® Green QPCR Master Mix Potassium chloride	-	-	Readily
Reference Dye Potassium chloride	-	-	Readily
10X GC Additive Ethenediol	-	-	Readily

12.3 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
Potassium chloride	-0.46	-	low
Reference Dye Potassium chloride	-0.46	-	low
10X GC Additive Ethenediol	-1.36	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 12. Ecological information

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal regulations : **TSCA 8(a) PAIR:** Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 311: Edetic acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Section 15. Regulatory information

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification	: 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50x AB SOLiD Primer Mix 100 pM AB SOLiD DNA Standard 200X Dilution Buffer 10X GC Additive	EYE IRRITATION - Category 2B Not applicable. Not applicable. Not applicable. Not applicable. ACUTE TOXICITY (oral) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (kidneys) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
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Composition/information on ingredients

Name	%	Classification
2X Brilliant III SYBR® Green QPCR Master Mix		
Glycerol	≥10 - ≤25	EYE IRRITATION - Category 2A
Dimethyl sulfoxide	≤10	FLAMMABLE LIQUIDS - Category 4
Potassium chloride	≤3	EYE IRRITATION - Category 2A EYE IRRITATION - Category 2A
Reference Dye		
Potassium chloride	≤5	EYE IRRITATION - Category 2A
2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	≤3	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
10X GC Additive		
Ethanediol	≥50 - ≤75	ACUTE TOXICITY (oral) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (kidneys) (oral) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SARA 313


	Product name	CAS number	%
Form R - Reporting requirements	10X GC Additive Ethanediol	107-21-1	≥50 - ≤75
Supplier notification	10X GC Additive Ethanediol	107-21-1	≥50 - ≤75


SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Section 15. Regulatory information

State regulations

- Massachusetts** : The following components are listed: GLYCERINE MIST; ETHYLENE GLYCOL; 1, 2-DIHYDROXYETHANE
- New York** : The following components are listed: Ethylene glycol
- New Jersey** : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL; DIMETHYL SULFOXIDE; METHANE, SULFINYLBI-; ETHYLENE GLYCOL; 1,2-ETHANEDIOL
- Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL; 1,2-ETHANEDIOL
- California Prop. 65**

 **WARNING:** This product can expose you to Ethylene Glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
 GC Additive Ethylene Glycol	-	Yes.

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** :  Not determined.
- Turkey** : Not determined.
- United States** : Not determined.
- Viet Nam** :  Not determined.

Section 16. Other information

History

Date of issue : 07/03/2018
Date of previous issue : 08/31/2016
Version : 5

Procedure used to derive the classification

Classification	Justification
<p>2X Brilliant III SYBR® Green QPCR Master Mix EYE IRRITATION - Category 2B</p> <p>10X GC Additive ACUTE TOXICITY (oral) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (kidneys) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</p>	<p>Calculation method</p> <p>Calculation method Calculation method Calculation method Calculation method</p>

Indicates information that has changed from previously issued version.

Notice to reader

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