

SAFETY DATA SHEET

Agilent NGS FFPE QC Kit, EA, 16 Reactions, Part Number 5190-8833

Section 1. Identification

1.1 Product identifier

Product name	: Agilent NGS FFPE QC Kit, EA, 16 Reactions, Part Number 5190-8833	
Part no. (chemical kit)	: 5190-8833	
Part no.	<input checked="" type="checkbox"/> Primer Set A 42 bp	5190-8853
	Primer Set B 123 bp	5190-8854
	DNA Standard 1 16 Samples	5190-8855
	DNA Standard 2 16 Samples	5190-8856
	DNA Standard 3 16 Samples	5190-8857
	DNA Standard 4 16 Samples	5190-8858
	DNA Standard 5 16 Samples	5190-8859
	Reference DNA	5190-9313
	2X Brilliant III SYBR® Green QPCR Master Mix	600882-51
	Reference Dye	600530-53

Validation date : 8/21/2018

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"/> Primer Set A 42 bp	0.09 ml (16 sample)
	Primer Set B 123 bp	0.06 ml (16 sample)
	DNA Standard 1 16 Samples	0.024 ml (2500 pg/μl)
	DNA Standard 2 16 Samples	0.024 ml (625 pg/μl)
	DNA Standard 3 16 Samples	0.024 ml (156.25 pg/μl)
	DNA Standard 4 16 Samples	0.024 ml (39.06 pg/μl)
	DNA Standard 5 16 Samples	0.024 ml (9.77 pg/μl)
	Reference DNA	0.048 ml (16 sample)
	2X Brilliant III SYBR® Green QPCR Master Mix	2.0 ml
	Reference Dye	0.1 ml (100 μl 1 mM)

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"/> Primer Set A 42 bp	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.
	Primer Set B 123 bp	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.
DNA Standard 1 16 Samples	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.
DNA Standard 2 16 Samples	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.
DNA Standard 3 16 Samples	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.
DNA Standard 4 16 Samples	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.
DNA Standard 5 16 Samples	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.
Reference DNA	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.
2X 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.

Classification of the substance or mixture

**2X Brilliant III SYBR® Green
QPCR Master Mix
H320**

Ingredients of unknown toxicity	: 2X Brilliant III SYBR® Green QPCR Master Mix	EYE IRRITATION - Category 2B
		Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 1 - 10%
	Reference Dye	Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 10 - 30%
		Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 1 - 10%
		Percentage of the mixture consisting of ingredient

Section 2. Hazards identification

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

2.2 GHS label elements

Signal word

: Primer Set A 42 bp No signal word.
 Primer Set B 123 bp No signal word.
 DNA Standard 1 16 Samples No signal word.
 DNA Standard 2 16 Samples No signal word.
 DNA Standard 3 16 Samples No signal word.
 DNA Standard 4 16 Samples No signal word.
 DNA Standard 5 16 Samples No signal word.
 Reference DNA No signal word.
 2X Brilliant III SYBR® Green Warning
 QPCR Master Mix
 Reference Dye No signal word.

Hazard statements

: Primer Set A 42 bp No known significant effects or critical hazards.
 Primer Set B 123 bp No known significant effects or critical hazards.
 DNA Standard 1 16 Samples No known significant effects or critical hazards.
 DNA Standard 2 16 Samples No known significant effects or critical hazards.
 DNA Standard 3 16 Samples No known significant effects or critical hazards.
 DNA Standard 4 16 Samples No known significant effects or critical hazards.
 DNA Standard 5 16 Samples No known significant effects or critical hazards.
 Reference DNA No known significant effects or critical hazards.
 2X Brilliant III SYBR® Green H320 - Causes eye irritation.
 QPCR Master Mix
 Reference Dye No known significant effects or critical hazards.

Precautionary statements

Prevention

: Primer Set A 42 bp Not applicable.
 Primer Set B 123 bp Not applicable.
 DNA Standard 1 16 Samples Not applicable.
 DNA Standard 2 16 Samples Not applicable.
 DNA Standard 3 16 Samples Not applicable.
 DNA Standard 4 16 Samples Not applicable.
 DNA Standard 5 16 Samples Not applicable.
 Reference DNA Not applicable.
 2X Brilliant III SYBR® Green P264 - Wash hands thoroughly after handling.
 QPCR Master Mix
 Reference Dye Not applicable.

Response

: Primer Set A 42 bp Not applicable.
 Primer Set B 123 bp Not applicable.
 DNA Standard 1 16 Samples Not applicable.
 DNA Standard 2 16 Samples Not applicable.
 DNA Standard 3 16 Samples Not applicable.
 DNA Standard 4 16 Samples Not applicable.
 DNA Standard 5 16 Samples Not applicable.
 Reference DNA Not applicable.
 2X Brilliant III SYBR® Green P305 + P351 + P338 - IF IN EYES: Rinse
 QPCR Master Mix cautiously with water for several minutes. Remove
 contact lenses, if present and easy to do. Continue
 rinsing.
 Reference Dye P337 + P313 - If eye irritation persists: Get medical
 attention.
 Not applicable.

Section 2. Hazards identification

Storage	:	Primer Set A 42 bp	Not applicable.
		Primer Set B 123 bp	Not applicable.
		DNA Standard 1 16 Samples	Not applicable.
		DNA Standard 2 16 Samples	Not applicable.
		DNA Standard 3 16 Samples	Not applicable.
		DNA Standard 4 16 Samples	Not applicable.
		DNA Standard 5 16 Samples	Not applicable.
		Reference DNA	Not applicable.
		2X Brilliant III SYBR® Green	Not applicable.
		QPCR Master Mix	Not applicable.
Reference Dye	Not applicable.		
Disposal	:	Primer Set A 42 bp	Not applicable.
		Primer Set B 123 bp	Not applicable.
		DNA Standard 1 16 Samples	Not applicable.
		DNA Standard 2 16 Samples	Not applicable.
		DNA Standard 3 16 Samples	Not applicable.
		DNA Standard 4 16 Samples	Not applicable.
		DNA Standard 5 16 Samples	Not applicable.
		Reference DNA	Not applicable.
		2X Brilliant III SYBR® Green	Not applicable.
		QPCR Master Mix	Not applicable.
Reference Dye	Not applicable.		
Supplemental label elements	:	Primer Set A 42 bp	None known.
		Primer Set B 123 bp	None known.
		DNA Standard 1 16 Samples	None known.
		DNA Standard 2 16 Samples	None known.
		DNA Standard 3 16 Samples	None known.
		DNA Standard 4 16 Samples	None known.
		DNA Standard 5 16 Samples	None known.
		Reference DNA	None known.
		2X Brilliant III SYBR® Green	None known.
		QPCR Master Mix	None known.
Reference Dye	None known.		

2.3 Other hazards

Hazards not otherwise classified	:	Primer Set A 42 bp	None known.
		Primer Set B 123 bp	None known.
		DNA Standard 1 16 Samples	None known.
		DNA Standard 2 16 Samples	None known.
		DNA Standard 3 16 Samples	None known.
		DNA Standard 4 16 Samples	None known.
		DNA Standard 5 16 Samples	None known.
		Reference DNA	None known.
		2X Brilliant III SYBR® Green	None known.
		QPCR Master Mix	None known.
Reference Dye	None known.		

Section 3. Composition/information on ingredients

Substance/mixture	:	Primer Set A 42 bp	Mixture
		Primer Set B 123 bp	Mixture
		DNA Standard 1 16 Samples	Mixture
		DNA Standard 2 16 Samples	Mixture
		DNA Standard 3 16 Samples	Mixture
		DNA Standard 4 16 Samples	Mixture
		DNA Standard 5 16 Samples	Mixture
		Reference DNA	Mixture
		2X Brilliant III SYBR® Green	Mixture
		QPCR Master Mix	Mixture

Section 3. Composition/information on ingredients

Reference Dye

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

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

: Primer Set A 42 bp

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.

Primer Set B 123 bp

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.

DNA Standard 1 16 Samples

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.

DNA Standard 2 16 Samples

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.

DNA Standard 3 16 Samples

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.

DNA Standard 4 16 Samples

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.

DNA Standard 5 16 Samples

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Reference 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.

2X 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

Section 4. First aid measures

	Reference Dye	irritation persists, get medical attention. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Primer Set A 42 bp	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Primer Set B 123 bp	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	DNA Standard 1 16 Samples	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	DNA Standard 2 16 Samples	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	DNA Standard 3 16 Samples	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	DNA Standard 4 16 Samples	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	DNA Standard 5 16 Samples	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Reference DNA	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	2X 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
Skin contact	: Primer Set A 42 bp	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Primer Set B 123 bp	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	DNA Standard 1 16 Samples	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	DNA Standard 2 16 Samples	Flush contaminated skin with plenty of water.

Section 4. First aid measures

	DNA Standard 3 16 Samples	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.
	DNA Standard 4 16 Samples	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.
	DNA Standard 5 16 Samples	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.
	Reference DNA	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.
	2X Brilliant III SYBR® Green QPCR Master Mix	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.
	Reference Dye	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.
Ingestion	: Primer Set A 42 bp	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.
	Primer Set B 123 bp	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.
	DNA Standard 1 16 Samples	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.
	DNA Standard 2 16 Samples	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.
	DNA Standard 3 16 Samples	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.
	DNA Standard 4 16 Samples	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable

Section 4. First aid measures

DNA Standard 5 16 Samples	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. 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 DNA	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.
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 unless directed to do so by medical personnel. Get medical attention if symptoms occur.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

<ul style="list-style-type: none"> Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<ul style="list-style-type: none"> 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. 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 eye irritation. No known significant effects or critical hazards.
---	---

Section 4. First aid measures

Inhalation	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<ul style="list-style-type: none"> 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. 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.
Skin contact	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<ul style="list-style-type: none"> 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. 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	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<ul style="list-style-type: none"> 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. 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.
<u>Over-exposure signs/symptoms</u>		
Eye contact	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<ul style="list-style-type: none"> No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness No specific data.
Inhalation	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green 	<ul style="list-style-type: none"> No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

Section 4. First aid measures

	QPCR Master Mix	
	Reference Dye	No specific data.
Skin contact	: Primer Set A 42 bp	No specific data.
	Primer Set B 123 bp	No specific data.
	DNA Standard 1 16 Samples	No specific data.
	DNA Standard 2 16 Samples	No specific data.
	DNA Standard 3 16 Samples	No specific data.
	DNA Standard 4 16 Samples	No specific data.
	DNA Standard 5 16 Samples	No specific data.
	Reference DNA	No specific data.
	2X Brilliant III SYBR® Green	No specific data.
	QPCR Master Mix	
	Reference Dye	No specific data.
Ingestion	: Primer Set A 42 bp	No specific data.
	Primer Set B 123 bp	No specific data.
	DNA Standard 1 16 Samples	No specific data.
	DNA Standard 2 16 Samples	No specific data.
	DNA Standard 3 16 Samples	No specific data.
	DNA Standard 4 16 Samples	No specific data.
	DNA Standard 5 16 Samples	No specific data.
	Reference DNA	No specific data.
	2X Brilliant III SYBR® Green	No specific data.
	QPCR Master Mix	
	Reference Dye	No specific data.

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

Notes to physician	: Primer Set A 42 bp	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Primer Set B 123 bp	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	DNA Standard 1 16 Samples	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	DNA Standard 2 16 Samples	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	DNA Standard 3 16 Samples	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	DNA Standard 4 16 Samples	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	DNA Standard 5 16 Samples	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Reference DNA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	2X Brilliant III SYBR® Green	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	QPCR Master Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Reference Dye	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.

Section 4. First aid measures

Specific treatments	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<ul style="list-style-type: none"> No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<ul style="list-style-type: none"> 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. 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. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<ul style="list-style-type: none"> 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. 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.
-------------------------------------	---	---

Section 5. Fire-fighting measures

Unsuitable extinguishing media

: Primer Set A 42 bp	surrounding fire.
Primer Set B 123 bp	None known.
DNA Standard 1 16 Samples	None known.
DNA Standard 2 16 Samples	None known.
DNA Standard 3 16 Samples	None known.
DNA Standard 4 16 Samples	None known.
DNA Standard 5 16 Samples	None known.
Reference DNA	None known.
2X Brilliant III SYBR® Green	None known.
QPCR Master Mix	None known.
Reference Dye	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

: Primer Set A 42 bp	In a fire or if heated, a pressure increase will occur and the container may burst.
Primer Set B 123 bp	In a fire or if heated, a pressure increase will occur and the container may burst.
DNA Standard 1 16 Samples	In a fire or if heated, a pressure increase will occur and the container may burst.
DNA Standard 2 16 Samples	In a fire or if heated, a pressure increase will occur and the container may burst.
DNA Standard 3 16 Samples	In a fire or if heated, a pressure increase will occur and the container may burst.
DNA Standard 4 16 Samples	In a fire or if heated, a pressure increase will occur and the container may burst.
DNA Standard 5 16 Samples	In a fire or if heated, a pressure increase will occur and the container may burst.
Reference DNA	In a fire or if heated, a pressure increase will occur and the container may burst.
2X Brilliant III SYBR® Green	In a fire or if heated, a pressure increase will occur and the container may burst.
QPCR Master Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
Reference Dye	In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: Primer Set A 42 bp	No specific data.
Primer Set B 123 bp	No specific data.
DNA Standard 1 16 Samples	No specific data.
DNA Standard 2 16 Samples	No specific data.
DNA Standard 3 16 Samples	No specific data.
DNA Standard 4 16 Samples	No specific data.
DNA Standard 5 16 Samples	No specific data.
Reference DNA	No specific data.
2X Brilliant III SYBR® Green	Decomposition products may include the following materials:
QPCR Master Mix	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

Section 5. Fire-fighting measures

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Primer Set A 42 bp

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.

Primer Set B 123 bp

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.

DNA Standard 1 16 Samples

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.

DNA Standard 2 16 Samples

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.

DNA Standard 3 16 Samples

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.

DNA Standard 4 16 Samples

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.

DNA Standard 5 16 Samples

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 DNA

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.

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.

Special protective equipment for fire-fighters

: Primer Set A 42 bp

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Primer Set B 123 bp

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

DNA Standard 1 16 Samples

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

DNA Standard 2 16 Samples

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

DNA Standard 3 16 Samples

Fire-fighters should wear appropriate protective

Section 5. Fire-fighting measures

DNA Standard 4 16 Samples	equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
DNA Standard 5 16 Samples	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Reference DNA	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
2X Brilliant III SYBR® Green QPCR Master Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Reference Dye	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: Primer Set A 42 bp

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.

Primer Set B 123 bp

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.

DNA Standard 1 16 Samples

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.

DNA Standard 2 16 Samples

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.

DNA Standard 3 16 Samples

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.

DNA Standard 4 16 Samples


No action shall be taken involving any personal risk or without suitable training. Evacuate

Section 6. Accidental release measures

	surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. 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.
DNA Standard 5 16 Samples	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.
Reference DNA	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.
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.
For emergency responders : Primer Set A 42 bp	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".
Primer Set B 123 bp	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".
DNA Standard 1 16 Samples	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".
DNA Standard 2 16 Samples	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".
DNA Standard 3 16 Samples	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".
DNA Standard 4 16 Samples	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".
DNA Standard 5 16 Samples	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".

Section 6. Accidental release measures

6.2 Environmental precautions

Reference DNA	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".
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".
Reference Dye	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".
:  Primer Set A 42 bp	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).
Primer Set B 123 bp	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).
DNA Standard 1 16 Samples	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).
DNA Standard 2 16 Samples	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).
DNA Standard 3 16 Samples	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).
DNA Standard 4 16 Samples	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).
DNA Standard 5 16 Samples	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 DNA	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).
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).

Section 6. Accidental release measures

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).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Primer Set A 42 bp

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.

Primer Set B 123 bp

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.

DNA Standard 1 16 Samples

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.

DNA Standard 2 16 Samples

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.

DNA Standard 3 16 Samples

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.

DNA Standard 4 16 Samples

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.

DNA Standard 5 16 Samples

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 DNA

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

2X Brilliant III SYBR® Green
QPCR Master Mix

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an

Section 6. Accidental release measures

Reference Dye

inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste 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.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures

: Primer Set A 42 bp

Put on appropriate personal protective equipment (see Section 8).

Primer Set B 123 bp

Put on appropriate personal protective equipment (see Section 8).

DNA Standard 1 16 Samples

Put on appropriate personal protective equipment (see Section 8).

DNA Standard 2 16 Samples

Put on appropriate personal protective equipment (see Section 8).

DNA Standard 3 16 Samples

Put on appropriate personal protective equipment (see Section 8).

DNA Standard 4 16 Samples

Put on appropriate personal protective equipment (see Section 8).

DNA Standard 5 16 Samples

Put on appropriate personal protective equipment (see Section 8).

Reference DNA

Put on appropriate personal protective equipment (see Section 8).

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).

Advice on general occupational hygiene

: Primer Set A 42 bp

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.

Primer Set B 123 bp

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.

DNA Standard 1 16 Samples

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

Section 7. Handling and storage

DNA Standard 2 16 Samples	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.
DNA Standard 3 16 Samples	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.
DNA Standard 4 16 Samples	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.
DNA Standard 5 16 Samples	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 DNA	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.
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 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.

7.2 Conditions for safe storage, including any incompatibilities

:  Primer Set A 42 bp

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

Section 7. Handling and storage

Primer Set B 123 bp

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.

DNA Standard 1 16 Samples

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.

DNA Standard 2 16 Samples

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.

DNA Standard 3 16 Samples

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.

DNA Standard 4 16 Samples

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.

Section 7. Handling and storage

Industrial sector specific solutions	: Primer Set A 42 bp	Not applicable.
	Primer Set B 123 bp	Not applicable.
	DNA Standard 1 16 Samples	Not applicable.
	DNA Standard 2 16 Samples	Not applicable.
	DNA Standard 3 16 Samples	Not applicable.
	DNA Standard 4 16 Samples	Not applicable.
	DNA Standard 5 16 Samples	Not applicable.
	Reference DNA	Not applicable.
	2X Brilliant III SYBR® Green	Not applicable.
	QPCR Master Mix	Not applicable.
Reference Dye	Not applicable.	

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2X Brilliant III SYBR® Green QPCR Master Mix Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust OSHA PEL (United States, 6/2016). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust
Dimethyl sulfoxide	AIHA WEEL (United States, 10/2011).
Potassium chloride	TWA: 250 ppm 8 hours. None.
Reference Dye	
Potassium chloride	None.
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	None.

8.2 Exposure controls

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

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.
- 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	: Primer Set A 42 bp	Liquid.
	Primer Set B 123 bp	Liquid.
	DNA Standard 1 16 Samples	Liquid.
	DNA Standard 2 16 Samples	Liquid.
	DNA Standard 3 16 Samples	Liquid.
	DNA Standard 4 16 Samples	Liquid.
	DNA Standard 5 16 Samples	Liquid.
	Reference DNA	Liquid.
	2X Brilliant III SYBR® Green	Liquid.
	QPCR Master Mix	
Color	: Primer Set A 42 bp	Not available.
	Primer Set B 123 bp	Not available.
	DNA Standard 1 16 Samples	Not available.
	DNA Standard 2 16 Samples	Not available.
	DNA Standard 3 16 Samples	Not available.
	DNA Standard 4 16 Samples	Not available.
	DNA Standard 5 16 Samples	Not available.
	Reference DNA	Not available.
	2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
Odor	: Primer Set A 42 bp	Not available.
	Primer Set B 123 bp	Not available.
	DNA Standard 1 16 Samples	Not available.
	DNA Standard 2 16 Samples	Not available.
	DNA Standard 3 16 Samples	Not available.
	DNA Standard 4 16 Samples	Not available.
	DNA Standard 5 16 Samples	Not available.
	Reference DNA	Not available.
	2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	
Reference Dye	Not available.	

Section 9. Physical and chemical properties

Odor threshold	: Primer Set A 42 bp	Not available.
	Primer Set B 123 bp	Not available.
	DNA Standard 1 16 Samples	Not available.
	DNA Standard 2 16 Samples	Not available.
	DNA Standard 3 16 Samples	Not available.
	DNA Standard 4 16 Samples	Not available.
	DNA Standard 5 16 Samples	Not available.
	Reference DNA	Not available.
	2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	Not available.
pH	: Primer Set A 42 bp	7.8
	Primer Set B 123 bp	7.8
	DNA Standard 1 16 Samples	7.8
	DNA Standard 2 16 Samples	7.8
	DNA Standard 3 16 Samples	7.8
	DNA Standard 4 16 Samples	7.8
	DNA Standard 5 16 Samples	7.8
	Reference DNA	7.8
	2X Brilliant III SYBR® Green	7.8
	QPCR Master Mix	7.8
Melting point	: Primer Set A 42 bp	0°C (32°F)
	Primer Set B 123 bp	0°C (32°F)
	DNA Standard 1 16 Samples	0°C (32°F)
	DNA Standard 2 16 Samples	0°C (32°F)
	DNA Standard 3 16 Samples	0°C (32°F)
	DNA Standard 4 16 Samples	0°C (32°F)
	DNA Standard 5 16 Samples	0°C (32°F)
	Reference DNA	0°C (32°F)
	2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	Not available.
Boiling point	: Primer Set A 42 bp	100°C (212°F)
	Primer Set B 123 bp	100°C (212°F)
	DNA Standard 1 16 Samples	100°C (212°F)
	DNA Standard 2 16 Samples	100°C (212°F)
	DNA Standard 3 16 Samples	100°C (212°F)
	DNA Standard 4 16 Samples	100°C (212°F)
	DNA Standard 5 16 Samples	100°C (212°F)
	Reference DNA	100°C (212°F)
	2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	Not available.
Flash point	: Primer Set A 42 bp	Not available.
	Primer Set B 123 bp	Not available.
	DNA Standard 1 16 Samples	Not available.
	DNA Standard 2 16 Samples	Not available.
	DNA Standard 3 16 Samples	Not available.
	DNA Standard 4 16 Samples	Not available.
	DNA Standard 5 16 Samples	Not available.
	Reference DNA	Not available.
	2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	Not available.
Reference Dye	Not available.	

Section 9. Physical and chemical properties

Evaporation rate	:	Primer Set A 42 bp	Not available.
		Primer Set B 123 bp	Not available.
		DNA Standard 1 16 Samples	Not available.
		DNA Standard 2 16 Samples	Not available.
		DNA Standard 3 16 Samples	Not available.
		DNA Standard 4 16 Samples	Not available.
		DNA Standard 5 16 Samples	Not available.
		Reference DNA	Not available.
		2X Brilliant III SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.
Flammability (solid, gas)	:	Primer Set A 42 bp	Not applicable.
		Primer Set B 123 bp	Not applicable.
		DNA Standard 1 16 Samples	Not applicable.
		DNA Standard 2 16 Samples	Not applicable.
		DNA Standard 3 16 Samples	Not applicable.
		DNA Standard 4 16 Samples	Not applicable.
		DNA Standard 5 16 Samples	Not applicable.
		Reference DNA	Not applicable.
		2X Brilliant III SYBR® Green QPCR Master Mix	Not applicable.
		Reference Dye	Not applicable.
Lower and upper explosive (flammable) limits	:	Primer Set A 42 bp	Not available.
		Primer Set B 123 bp	Not available.
		DNA Standard 1 16 Samples	Not available.
		DNA Standard 2 16 Samples	Not available.
		DNA Standard 3 16 Samples	Not available.
		DNA Standard 4 16 Samples	Not available.
		DNA Standard 5 16 Samples	Not available.
		Reference DNA	Not available.
		2X Brilliant III SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.
Vapor pressure	:	Primer Set A 42 bp	Not available.
		Primer Set B 123 bp	Not available.
		DNA Standard 1 16 Samples	Not available.
		DNA Standard 2 16 Samples	Not available.
		DNA Standard 3 16 Samples	Not available.
		DNA Standard 4 16 Samples	Not available.
		DNA Standard 5 16 Samples	Not available.
		Reference DNA	Not available.
		2X Brilliant III SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.
Vapor density	:	Primer Set A 42 bp	Not available.
		Primer Set B 123 bp	Not available.
		DNA Standard 1 16 Samples	Not available.
		DNA Standard 2 16 Samples	Not available.
		DNA Standard 3 16 Samples	Not available.
		DNA Standard 4 16 Samples	Not available.
		DNA Standard 5 16 Samples	Not available.
		Reference DNA	Not available.
		2X Brilliant III SYBR® Green QPCR Master Mix	Not available.
		Reference Dye	Not available.

Section 9. Physical and chemical properties

Decomposition temperature	: Primer Set A 42 bp	Not available.
	Primer Set B 123 bp	Not available.
	DNA Standard 1 16 Samples	Not available.
	DNA Standard 2 16 Samples	Not available.
	DNA Standard 3 16 Samples	Not available.
	DNA Standard 4 16 Samples	Not available.
	DNA Standard 5 16 Samples	Not available.
	Reference DNA	Not available.
	2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	Not available.
	Reference Dye	Not available.
Viscosity	: Primer Set A 42 bp	Not available.
	Primer Set B 123 bp	Not available.
	DNA Standard 1 16 Samples	Not available.
	DNA Standard 2 16 Samples	Not available.
	DNA Standard 3 16 Samples	Not available.
	DNA Standard 4 16 Samples	Not available.
	DNA Standard 5 16 Samples	Not available.
	Reference DNA	Not available.
	2X Brilliant III SYBR® Green	Not available.
	QPCR Master Mix	Not available.
	Reference Dye	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: Primer Set A 42 bp	No specific test data related to reactivity available for this product or its ingredients.
	Primer Set B 123 bp	No specific test data related to reactivity available for this product or its ingredients.
	DNA Standard 1 16 Samples	No specific test data related to reactivity available for this product or its ingredients.
	DNA Standard 2 16 Samples	No specific test data related to reactivity available for this product or its ingredients.
	DNA Standard 3 16 Samples	No specific test data related to reactivity available for this product or its ingredients.
	DNA Standard 4 16 Samples	No specific test data related to reactivity available for this product or its ingredients.
	DNA Standard 5 16 Samples	No specific test data related to reactivity available for this product or its ingredients.
	Reference DNA	No specific test data related to reactivity available for this product or its ingredients.
	2X Brilliant III SYBR® Green	No specific test data related to reactivity available for this product or its ingredients.
	QPCR Master Mix	No specific test data related to reactivity available for this product or its ingredients.
	Reference Dye	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Primer Set A 42 bp	The product is stable.
	Primer Set B 123 bp	The product is stable.
	DNA Standard 1 16 Samples	The product is stable.
	DNA Standard 2 16 Samples	The product is stable.
	DNA Standard 3 16 Samples	The product is stable.
	DNA Standard 4 16 Samples	The product is stable.
	DNA Standard 5 16 Samples	The product is stable.
	Reference DNA	The product is stable.
	2X Brilliant III SYBR® Green	The product is stable.
QPCR Master Mix	The product is stable.	
Reference Dye	The product is stable.	

Section 10. Stability and reactivity

10.3 Possibility of hazardous reactions	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p>
10.4 Conditions to avoid	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p>
10.5 Incompatible materials	<ul style="list-style-type: none"> : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 	<p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p>

Section 10. Stability and reactivity

10.6 Hazardous decomposition products	: Primer Set A 42 bp	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Primer Set B 123 bp	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	DNA Standard 1 16 Samples	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	DNA Standard 2 16 Samples	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	DNA Standard 3 16 Samples	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	DNA Standard 4 16 Samples	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	DNA Standard 5 16 Samples	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Reference DNA	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	2X Brilliant III SYBR® Green QPCR Master Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Reference Dye	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

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	-

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	-

Section 11. Toxicological information

Potassium chloride	Skin - Mild irritant	Rabbit	-	milligrams 24 hours 500	-
	Skin - Mild irritant	Rabbit	-	milligrams 100	-
	Eyes - Mild irritant	Rabbit	-	milligrams 24 hours 500	-
Reference Dye Potassium chloride	Eyes - Mild irritant	Rabbit	-	milligrams 24 hours 500	-

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
Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Primer Set A 42 bp	Not available.
Primer Set B 123 bp	Not available.
DNA Standard 1 16 Samples	Not available.
DNA Standard 2 16 Samples	Not available.
DNA Standard 3 16 Samples	Not available.
DNA Standard 4 16 Samples	Not available.
DNA Standard 5 16 Samples	Not available.
Reference DNA	Not available.
2X Brilliant III SYBR® Green	Routes of entry anticipated: Oral, Dermal, Inhalation.
QPCR Master Mix	Routes of entry anticipated: Oral, Dermal, Inhalation.
Reference Dye	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Section 11. Toxicological information

Eye contact	: Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	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. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation.
Inhalation	: Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	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. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering
--------------------	--	---

Section 11. Toxicological information

	Reference Dye	redness
Inhalation	: Primer Set A 42 bp	No specific data.
	Primer Set B 123 bp	No specific data.
	DNA Standard 1 16 Samples	No specific data.
	DNA Standard 2 16 Samples	No specific data.
	DNA Standard 3 16 Samples	No specific data.
	DNA Standard 4 16 Samples	No specific data.
	DNA Standard 5 16 Samples	No specific data.
	Reference DNA	No specific data.
	2X Brilliant III SYBR® Green	No specific data.
	QPCR Master Mix	
Skin contact	Reference Dye	No specific data.
	: Primer Set A 42 bp	No specific data.
	Primer Set B 123 bp	No specific data.
	DNA Standard 1 16 Samples	No specific data.
	DNA Standard 2 16 Samples	No specific data.
	DNA Standard 3 16 Samples	No specific data.
	DNA Standard 4 16 Samples	No specific data.
	DNA Standard 5 16 Samples	No specific data.
	Reference DNA	No specific data.
	2X Brilliant III SYBR® Green	No specific data.
Ingestion	QPCR Master Mix	
	Reference Dye	No specific data.
	: Primer Set A 42 bp	No specific data.
	Primer Set B 123 bp	No specific data.
	DNA Standard 1 16 Samples	No specific data.
	DNA Standard 2 16 Samples	No specific data.
	DNA Standard 3 16 Samples	No specific data.
	DNA Standard 4 16 Samples	No specific data.
	DNA Standard 5 16 Samples	No specific data.
	Reference DNA	No specific data.
2X Brilliant III SYBR® Green	No specific data.	
QPCR Master Mix		
Reference Dye	No specific data.	

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

General	: Primer Set A 42 bp	No known significant effects or critical hazards.
	Primer Set B 123 bp	No known significant effects or critical hazards.
	DNA Standard 1 16 Samples	No known significant effects or critical hazards.
	DNA Standard 2 16 Samples	No known significant effects or critical hazards.
	DNA Standard 3 16 Samples	No known significant effects or critical hazards.
	DNA Standard 4 16 Samples	No known significant effects or critical hazards.
	DNA Standard 5 16 Samples	No known significant effects or critical hazards.
	Reference DNA	No known significant effects or critical hazards.
	2X Brilliant III SYBR® Green	No known significant effects or critical hazards.

Section 11. Toxicological information

Carcinogenicity	QPCR Master Mix Reference Dye : Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	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. 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	: Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	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. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	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. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: Primer Set A 42 bp Primer Set B 123 bp DNA Standard 1 16 Samples DNA Standard 2 16 Samples DNA Standard 3 16 Samples DNA Standard 4 16 Samples DNA Standard 5 16 Samples Reference DNA 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye	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. No known significant effects or critical hazards. No known significant effects or critical hazards.

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
2X Brilliant III SYBR® Green QPCR Master Mix Oral	183001.9 mg/kg
Reference Dye Oral	70270.3 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 µl/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
	Acute EC50 141460 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
Reference Dye Potassium chloride	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
	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	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

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	-	-

Section 12. Ecological information

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

12.4 Mobility in soil

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

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. 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) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

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	:	Primer Set A 42 bp	Not applicable.
		Primer Set B 123 bp	Not applicable.
		DNA Standard 1 16 Samples	Not applicable.
		DNA Standard 2 16 Samples	Not applicable.
		DNA Standard 3 16 Samples	Not applicable.
		DNA Standard 4 16 Samples	Not applicable.
		DNA Standard 5 16 Samples	Not applicable.
		Reference DNA	Not applicable.
		2X Brilliant III SYBR® Green	EYE IRRITATION - Category 2B
		QPCR Master Mix	
		Reference Dye	Not applicable.

Composition/information on ingredients

No products were found.

State regulations

Section 15. Regulatory information

- Massachusetts** : The following components are listed: GLYCERINE MIST
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL
- Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL

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** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : All components are listed or exempted.
- Europe** : Not determined.
- Japan** : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
- Malaysia** : All components are listed or exempted.
- New Zealand** : All components are listed or exempted.
- 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** : 08/21/2018
- Date of previous issue** : 04/03/2015
- Version** : 2

Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> Brilliant III SYBR® Green QPCR Master Mix EYE IRRITATION - Category 2B	Calculation method

Indicates information that has changed from previously issued version.

Section 16. Other information

[Notice to reader](#)

Disclaimer: The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.