

SAFETY DATA SHEET

Agilent SARS-CoV-2 qRT-PCR Dx Reagents, Part Number K1180-64100

Section 1. Identification

Product identifier : Agilent SARS-CoV-2 qRT-PCR Dx Reagents, Part Number K1180-64100

Part no. (chemical kit) : K1180-64100

Part no. :

2X Brilliant III qRT-PCR Master Mix Dx	5191-6866
RT/RNase Block Dx	5191-6870
Reference Dye Dx	5191-6871
10X SARS-CoV-2 Primer/Probe Mix Dx	5191-6867
100mM DTT Dx	5191-6872

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

Identified uses :

- For In Vitro Diagnostic Use
- 2X Brilliant III qRT-PCR Master Mix Dx 2 x 2 ml
- RT/RNase Block Dx 1 x 0.4 ml
- Reference Dye Dx 1 x 0.1 ml
- 10X SARS-CoV-2 Primer/Probe Mix Dx 1 x 0.8 ml
- 100mM DTT Dx 1 x 0.1 ml

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

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

2X Brilliant III qRT-PCR
Master Mix Dx
H320 EYE IRRITATION - Category 2B

RT/RNase Block Dx
H320 EYE IRRITATION - Category 2B

GHS label elements

Signal word :

2X Brilliant III qRT-PCR Master Mix Dx	Warning
RT/RNase Block Dx	Warning
Reference Dye Dx	No signal word.
10X SARS-CoV-2 Primer/Probe Mix Dx	No signal word.
100mM DTT Dx	No signal word.

Hazard statements :

2X Brilliant III qRT-PCR Master Mix Dx	H320 - Causes eye irritation.
RT/RNase Block Dx	H320 - Causes eye irritation.
Reference Dye Dx	No known significant effects or critical hazards.
10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
100mM DTT Dx	No known significant effects or critical hazards.

Precautionary statements

Section 2. Hazard identification

Prevention	: 2X Brilliant III qRT-PCR Master Mix Dx	Not applicable.
	RT/RNase Block Dx	Not applicable.
	Reference Dye Dx	Not applicable.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Not applicable.
	100mM DTT Dx	Not applicable.
Response	: 2X Brilliant III qRT-PCR Master Mix Dx	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
	RT/RNase Block Dx	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
	Reference Dye Dx	Not applicable.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Not applicable.
	100mM DTT Dx	Not applicable.
Storage	: 2X Brilliant III qRT-PCR Master Mix Dx	Not applicable.
	RT/RNase Block Dx	Not applicable.
	Reference Dye Dx	Not applicable.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Not applicable.
	100mM DTT Dx	Not applicable.
Disposal	: 2X Brilliant III qRT-PCR Master Mix Dx	Not applicable.
	RT/RNase Block Dx	Not applicable.
	Reference Dye Dx	Not applicable.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Not applicable.
	100mM DTT Dx	Not applicable.
Supplemental label elements	: 2X Brilliant III qRT-PCR Master Mix Dx	None known.
	RT/RNase Block Dx	None known.
	Reference Dye Dx	None known.
	10X SARS-CoV-2 Primer/Probe Mix Dx	None known.
	100mM DTT Dx	None known.
Other hazards which do not result in classification	: 2X Brilliant III qRT-PCR Master Mix Dx	None known.
	RT/RNase Block Dx	None known.
	Reference Dye Dx	None known.
	10X SARS-CoV-2 Primer/Probe Mix Dx	None known.
	100mM DTT Dx	None known.

Section 3. Composition/information on ingredients

Substance/mixture	: 2X Brilliant III qRT-PCR Master Mix Dx	Mixture
	RT/RNase Block Dx	Mixture
	Reference Dye Dx	Mixture
	10X SARS-CoV-2 Primer/Probe Mix Dx	Mixture
	100mM DTT Dx	Mixture

Ingredient name	Synonyms	% (w/w)	CAS number
2X Brilliant III qRT-PCR Master Mix Dx			
Glycerol	Glycerol	≥10 - ≤30	56-81-5
Potassium chloride	Potassium Chloride	≥1 - ≤5	7447-40-7
Polyoxyethylene octyl phenyl ether	Triton X-100	≤0.1	9002-93-1
RT/RNase Block Dx			
Glycerol	Glycerol	≥30 - ≤60	56-81-5
Poly(oxy-1,2-ethanediyl), .alpha.-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Polyethylene glycol octaphenyl ether	≤0.1	9036-19-5
100mM DTT Dx			
(R*,R*)-1,4-Dimercaptobutane-2,3-diol	Dithiotreitol	≥1 - ≤5	3483-12-3

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

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

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

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact	: 2X Brilliant III qRT-PCR Master Mix Dx	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	RT/RNase Block Dx	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	Reference Dye Dx	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

Section 4. First-aid measures

	100mM DTT Dx	medical attention if irritation occurs. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: 2X Brilliant III qRT-PCR Master Mix Dx	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.
	RT/RNase Block Dx	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 Dx	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	10X SARS-CoV-2 Primer/ Probe Mix Dx	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	100mM DTT Dx	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: 2X Brilliant III qRT-PCR Master Mix Dx	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	RT/RNase Block Dx	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Reference Dye Dx	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	10X SARS-CoV-2 Primer/ Probe Mix Dx	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	100mM DTT Dx	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Section 4. First-aid measures

Ingestion	: 2X Brilliant III qRT-PCR Master Mix Dx	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	RT/RNase Block Dx	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Reference Dye Dx	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	10X SARS-CoV-2 Primer/ Probe Mix Dx	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	100mM DTT Dx	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: 2X Brilliant III qRT-PCR Master Mix Dx RT/RNase Block Dx Reference Dye Dx 10X SARS-CoV-2 Primer/ Probe Mix Dx 100mM DTT Dx	Causes eye irritation. Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
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Section 4. First-aid measures

Inhalation	: 2X Brilliant III qRT-PCR Master Mix Dx	No known significant effects or critical hazards.
	RT/RNase Block Dx	No known significant effects or critical hazards.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
Skin contact	: 2X Brilliant III qRT-PCR Master Mix Dx	No known significant effects or critical hazards.
	RT/RNase Block Dx	No known significant effects or critical hazards.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
Ingestion	: 2X Brilliant III qRT-PCR Master Mix Dx	No known significant effects or critical hazards.
	RT/RNase Block Dx	No known significant effects or critical hazards.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
Over-exposure signs/symptoms		
Eye contact	: 2X Brilliant III qRT-PCR Master Mix Dx	Adverse symptoms may include the following: irritation watering redness
	RT/RNase Block Dx	Adverse symptoms may include the following: irritation watering redness
	Reference Dye Dx	No specific data.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No specific data.
Inhalation	: 2X Brilliant III qRT-PCR Master Mix Dx	No specific data.
	RT/RNase Block Dx	No specific data.
	Reference Dye Dx	No specific data.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No specific data.
Skin contact	: 2X Brilliant III qRT-PCR Master Mix Dx	No specific data.
	RT/RNase Block Dx	No specific data.
	Reference Dye Dx	No specific data.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No specific data.
Ingestion	: 2X Brilliant III qRT-PCR Master Mix Dx	No specific data.
	RT/RNase Block Dx	No specific data.
	Reference Dye Dx	No specific data.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No specific data.

Section 4. First-aid measures

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

Notes to physician	: 2X Brilliant III qRT-PCR Master Mix Dx	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	RT/RNase Block Dx	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Reference Dye Dx	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	100mM DTT Dx	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: 2X Brilliant III qRT-PCR Master Mix Dx	No specific treatment.
	RT/RNase Block Dx	No specific treatment.
	Reference Dye Dx	No specific treatment.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No specific treatment.
	100mM DTT Dx	No specific treatment.
Protection of first-aiders	: 2X Brilliant III qRT-PCR Master Mix Dx	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.
	RT/RNase Block Dx	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.
	Reference Dye Dx	No action shall be taken involving any personal risk or without suitable training.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No action shall be taken involving any personal risk or without suitable training.
	100mM DTT Dx	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	: 2X Brilliant III qRT-PCR Master Mix Dx	Use an extinguishing agent suitable for the surrounding fire.
	RT/RNase Block Dx	Use an extinguishing agent suitable for the surrounding fire.
	Reference Dye Dx	Use an extinguishing agent suitable for the surrounding fire.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Use an extinguishing agent suitable for the surrounding fire.
	100mM DTT Dx	Use an extinguishing agent suitable for the surrounding fire.

Section 5. Fire-fighting measures

Unsuitable extinguishing media	: 2X Brilliant III qRT-PCR Master Mix Dx RT/RNase Block Dx Reference Dye Dx 10X SARS-CoV-2 Primer/Probe Mix Dx 100mM DTT Dx	None known. None known. None known. None known. None known.
Specific hazards arising from the chemical	: 2X Brilliant III qRT-PCR Master Mix Dx RT/RNase Block Dx Reference Dye Dx 10X SARS-CoV-2 Primer/Probe Mix Dx 100mM DTT Dx	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: 2X Brilliant III qRT-PCR Master Mix Dx RT/RNase Block Dx Reference Dye Dx 10X SARS-CoV-2 Primer/Probe Mix Dx 100mM DTT Dx	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide No specific data. No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
Special protective actions for fire-fighters	: 2X Brilliant III qRT-PCR Master Mix Dx RT/RNase Block Dx Reference Dye Dx 10X SARS-CoV-2 Primer/Probe Mix Dx 100mM DTT Dx	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters	: 2X Brilliant III qRT-PCR Master Mix Dx	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	RT/RNase Block Dx	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 Dx	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	10X SARS-CoV-2 Primer/ Probe Mix Dx	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	100mM DTT Dx	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: 2X Brilliant III qRT-PCR Master Mix Dx	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.
	RT/RNase Block Dx	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 Dx	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	10X SARS-CoV-2 Primer/ Probe Mix Dx	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.
	100mM DTT Dx	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.

Section 6. Accidental release measures

For emergency responders	: 2X Brilliant III qRT-PCR Master Mix Dx	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".
	RT/RNase Block Dx	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 Dx	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".
	10X SARS-CoV-2 Primer/ Probe Mix Dx	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".
	100mM DTT Dx	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".

Environmental precautions	: 2X Brilliant III qRT-PCR Master Mix Dx	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).
	RT/RNase Block Dx	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Reference Dye Dx	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	10X SARS-CoV-2 Primer/ Probe Mix Dx	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).
	100mM DTT Dx	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).

Methods and materials for containment and cleaning up

Methods for cleaning up	: 2X Brilliant III qRT-PCR Master Mix Dx	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.
	RT/RNase Block Dx	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Reference Dye Dx	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.
10X SARS-CoV-2 Primer/ Probe Mix Dx	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.
100mM DTT Dx	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: 2X Brilliant III qRT-PCR Master Mix Dx	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.
RT/RNase Block Dx	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 Dx	Put on appropriate personal protective equipment (see Section 8).
10X SARS-CoV-2 Primer/ Probe Mix Dx	Put on appropriate personal protective equipment (see Section 8).
100mM DTT Dx	Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

: 2X Brilliant III qRT-PCR Master Mix Dx	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.
RT/RNase Block Dx	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 Dx	Eating, drinking and smoking should be prohibited in

Section 7. Handling and storage

	10X SARS-CoV-2 Primer/ Probe Mix Dx	areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	100mM DTT Dx	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
<p>Conditions for safe storage, including any incompatibilities</p>	: 2X Brilliant III qRT-PCR Master Mix Dx	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.
	RT/RNase Block Dx	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.
	Reference Dye Dx	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	10X SARS-CoV-2 Primer/ Probe Mix Dx	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

Section 7. Handling and storage

100mM DTT Dx

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

Section 8. Exposure controls/personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
<p>2X Brilliant III qRT-PCR Master Mix Dx Glycerol</p>	<p>CA Alberta Provincial (Canada, 6/2018). OEL: 10 mg/m³ 8 hours. Form: Mist CA Quebec Provincial (Canada, 6/2022). TWAEV: 10 mg/m³ 8 hours. Form: mist CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. Form: mist TWA: 10 mg/m³ 8 hours. Form: mist CA British Columbia Provincial (Canada, 6/2023). TWA: 3 mg/m³ 8 hours. Form: respirable mist TWA: 10 mg/m³ 8 hours. Form: total mist</p>
<p>RT/RNase Block Dx Glycerol</p>	<p>CA Alberta Provincial (Canada, 6/2018). OEL: 10 mg/m³ 8 hours. Form: Mist CA Quebec Provincial (Canada, 6/2022). TWAEV: 10 mg/m³ 8 hours. Form: mist CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. Form: mist TWA: 10 mg/m³ 8 hours. Form: mist CA British Columbia Provincial (Canada, 6/2023). TWA: 3 mg/m³ 8 hours. Form: respirable mist TWA: 10 mg/m³ 8 hours. Form: total mist</p>

[Biological exposure indices](#)

No exposure indices known.

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

- Physical state**
- | | |
|--|---------|
| 2X Brilliant III qRT-PCR Master Mix Dx | Liquid. |
| RT/RNase Block Dx | Liquid. |
| Reference Dye Dx | Liquid. |
| 10X SARS-CoV-2 Primer/Probe Mix Dx | Liquid. |
| 100mM DTT Dx | Liquid. |

Section 9. Physical and chemical properties and safety characteristics

Color	: 2X Brilliant III qRT-PCR Master Mix Dx	Not available.
	RT/RNase Block Dx	Not available.
	Reference Dye Dx	Not available.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Not available.
	100mM DTT Dx	Not available.
Odor	: 2X Brilliant III qRT-PCR Master Mix Dx	Not available.
	RT/RNase Block Dx	Not available.
	Reference Dye Dx	Not available.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Not available.
	100mM DTT Dx	Not available.
Odor threshold	: 2X Brilliant III qRT-PCR Master Mix Dx	Not available.
	RT/RNase Block Dx	Not available.
	Reference Dye Dx	Not available.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Not available.
	100mM DTT Dx	Not available.
pH	: 2X Brilliant III qRT-PCR Master Mix Dx	7.8
	RT/RNase Block Dx	8
	Reference Dye Dx	8
	10X SARS-CoV-2 Primer/Probe Mix Dx	8
	100mM DTT Dx	Not available.
Melting point/freezing point	: 2X Brilliant III qRT-PCR Master Mix Dx	Not available.
	RT/RNase Block Dx	Not available.
	Reference Dye Dx	0°C (32°F)
	10X SARS-CoV-2 Primer/Probe Mix Dx	0°C (32°F)
	100mM DTT Dx	0°C (32°F)
Boiling point, initial boiling point, and boiling range	: 2X Brilliant III qRT-PCR Master Mix Dx	Not available.
	RT/RNase Block Dx	Not available.
	Reference Dye Dx	100°C (212°F)
	10X SARS-CoV-2 Primer/Probe Mix Dx	100°C (212°F)
	100mM DTT Dx	100°C (212°F)
Flash point	: 2X Brilliant III qRT-PCR Master Mix Dx	Not available.
	RT/RNase Block Dx	Not available.
	Reference Dye Dx	Not available.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Not available.
	100mM DTT Dx	Not available.

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
2X Brilliant III qRT-PCR Master Mix Dx						
Glycerol	-	-	-	177	350.6	-
RT/RNase Block Dx						
Glycerol	-	-	-	177	350.6	-
100mM DTT Dx						
(R*,R*) -1,4-Dimercaptobutane-2,3-diol	>110	>230	-	-	-	-

Evaporation rate : 2X Brilliant III qRT-PCR Master Mix Dx Not available.
 RT/RNase Block Dx Not available.
 Reference Dye Dx Not available.
 10X SARS-CoV-2 Primer/Probe Mix Dx Not available.
 100mM DTT Dx Not available.

Flammability : 2X Brilliant III qRT-PCR Master Mix Dx Not applicable.
 RT/RNase Block Dx Not applicable.
 Reference Dye Dx Not applicable.
 10X SARS-CoV-2 Primer/Probe Mix Dx Not applicable.
 100mM DTT Dx Not applicable.

Lower and upper explosion limit/flammability limit : 2X Brilliant III qRT-PCR Master Mix Dx Not available.
 RT/RNase Block Dx Not available.
 Reference Dye Dx Not available.
 10X SARS-CoV-2 Primer/Probe Mix Dx Not available.
 100mM DTT Dx Not available.

Vapor pressure :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
2X Brilliant III qRT-PCR Master Mix Dx						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
RT/RNase Block Dx						

Section 9. Physical and chemical properties and safety characteristics

water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
Reference Dye Dx						
water	17.5	2.3	-	92.258	12.3	-
10X SARS-CoV-2 Primer/Probe Mix Dx						
water	17.5	2.3	-	92.258	12.3	-
100mM DTT Dx						
water	17.5	2.3	-	92.258	12.3	-

Relative vapor density : 2X Brilliant III qRT-PCR Master Mix Dx Not available.
 RT/RNase Block Dx Not available.
 Reference Dye Dx Not available.
 10X SARS-CoV-2 Primer/Probe Mix Dx Not available.
 100mM DTT Dx Not available.

Relative density : 2X Brilliant III qRT-PCR Master Mix Dx Not available.
 RT/RNase Block Dx Not available.
 Reference Dye Dx Not available.
 10X SARS-CoV-2 Primer/Probe Mix Dx Not available.
 100mM DTT Dx Not available.

Solubility(ies) :

Media	Result
2X Brilliant III qRT-PCR Master Mix Dx	
water	Soluble
RT/RNase Block Dx	
water	Soluble
Reference Dye Dx	
water	Soluble
10X SARS-CoV-2 Primer/Probe Mix Dx	
water	Soluble
100mM DTT Dx	
water	Soluble

Partition coefficient: n-octanol/water : 2X Brilliant III qRT-PCR Master Mix Dx Not applicable.
 RT/RNase Block Dx Not applicable.
 Reference Dye Dx Not applicable.
 10X SARS-CoV-2 Primer/Probe Mix Dx Not applicable.
 100mM DTT Dx Not applicable.

Auto-ignition temperature :

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	°C	°F	Method
2X Brilliant III qRT-PCR Master Mix Dx			
Glycerol	370	698	-
RT/RNase Block Dx			
Glycerol	370	698	-

Decomposition temperature :

- 2X Brilliant III qRT-PCR Master Mix Dx Not available.
- RT/RNase Block Dx Not available.
- Reference Dye Dx Not available.
- 10X SARS-CoV-2 Primer/Probe Mix Dx Not available.
- 100mM DTT Dx Not available.

Viscosity :

- 2X Brilliant III qRT-PCR Master Mix Dx Not available.
- RT/RNase Block Dx Not available.
- Reference Dye Dx Not available.
- 10X SARS-CoV-2 Primer/Probe Mix Dx Not available.
- 100mM DTT Dx Not available.

Particle characteristics

Median particle size :

- 2X Brilliant III qRT-PCR Master Mix Dx Not applicable.
- RT/RNase Block Dx Not applicable.
- Reference Dye Dx Not applicable.
- 10X SARS-CoV-2 Primer/Probe Mix Dx Not applicable.
- 100mM DTT Dx Not applicable.

Section 10. Stability and reactivity

Reactivity :

- 2X Brilliant III qRT-PCR Master Mix Dx No specific test data related to reactivity available for this product or its ingredients.
- RT/RNase Block Dx No specific test data related to reactivity available for this product or its ingredients.
- Reference Dye Dx No specific test data related to reactivity available for this product or its ingredients.
- 10X SARS-CoV-2 Primer/Probe Mix Dx No specific test data related to reactivity available for this product or its ingredients.
- 100mM DTT Dx No specific test data related to reactivity available for this product or its ingredients.

Chemical stability :

- 2X Brilliant III qRT-PCR Master Mix Dx The product is stable.
- RT/RNase Block Dx The product is stable.
- Reference Dye Dx The product is stable.
- 10X SARS-CoV-2 Primer/Probe Mix Dx The product is stable.
- 100mM DTT Dx The product is stable.

Section 10. Stability and reactivity

Possibility of hazardous reactions	: 2X Brilliant III qRT-PCR Master Mix Dx RT/RNase Block Dx Reference Dye Dx 10X SARS-CoV-2 Primer/Probe Mix Dx 100mM DTT Dx	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: 2X Brilliant III qRT-PCR Master Mix Dx RT/RNase Block Dx Reference Dye Dx 10X SARS-CoV-2 Primer/Probe Mix Dx 100mM DTT Dx	No specific data. No specific data. No specific data. No specific data. No specific data.
Incompatible materials	: 2X Brilliant III qRT-PCR Master Mix Dx RT/RNase Block Dx Reference Dye Dx 10X SARS-CoV-2 Primer/Probe Mix Dx 100mM DTT Dx	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.
Hazardous decomposition products	: 2X Brilliant III qRT-PCR Master Mix Dx RT/RNase Block Dx Reference Dye Dx 10X SARS-CoV-2 Primer/Probe Mix Dx 100mM DTT Dx	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2X Brilliant III qRT-PCR Master Mix Dx				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-
Polyoxyethylene octyl phenyl ether	LD50 Oral	Rat	1800 mg/kg	-
RT/RNase Block Dx				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Section 11. Toxicological information

Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-
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Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2X Brilliant III qRT-PCR Master Mix Dx					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
Polyoxyethylene octyl phenyl ether	Skin - Mild irritant	Rabbit	-	24 hours 500 uL	-
RT/RNase Block Dx					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-

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
100mM DTT Dx (R*,R*)-1,4-Dimercaptobutane-2,3-diol	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on the likely routes of exposure	: 2X Brilliant III qRT-PCR Master Mix Dx	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	RT/RNase Block Dx	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	Reference Dye Dx	Not available.
	10X SARS-CoV-2 Primer/Probe Mix Dx	Not available.
	100mM DTT Dx	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact	: 2X Brilliant III qRT-PCR Master Mix Dx	Causes eye irritation.
	RT/RNase Block Dx	Causes eye irritation.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
	100mM DTT Dx	No known significant effects or critical hazards.
Inhalation	: 2X Brilliant III qRT-PCR Master Mix Dx	No known significant effects or critical hazards.
	RT/RNase Block Dx	No known significant effects or critical hazards.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
	100mM DTT Dx	No known significant effects or critical hazards.
Skin contact	: 2X Brilliant III qRT-PCR Master Mix Dx	No known significant effects or critical hazards.
	RT/RNase Block Dx	No known significant effects or critical hazards.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
	100mM DTT Dx	No known significant effects or critical hazards.
Ingestion	: 2X Brilliant III qRT-PCR Master Mix Dx	No known significant effects or critical hazards.
	RT/RNase Block Dx	No known significant effects or critical hazards.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
	100mM DTT Dx	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: 2X Brilliant III qRT-PCR Master Mix Dx	Adverse symptoms may include the following: irritation watering redness
	RT/RNase Block Dx	Adverse symptoms may include the following: irritation watering redness
	Reference Dye Dx	No specific data.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No specific data.
	100mM DTT Dx	No specific data.

Section 11. Toxicological information

Inhalation	: 2X Brilliant III qRT-PCR Master Mix Dx	No specific data.
	RT/RNase Block Dx	No specific data.
	Reference Dye Dx	No specific data.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No specific data.
	100mM DTT Dx	No specific data.
Skin contact	: 2X Brilliant III qRT-PCR Master Mix Dx	No specific data.
	RT/RNase Block Dx	No specific data.
	Reference Dye Dx	No specific data.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No specific data.
	100mM DTT Dx	No specific data.
Ingestion	: 2X Brilliant III qRT-PCR Master Mix Dx	No specific data.
	RT/RNase Block Dx	No specific data.
	Reference Dye Dx	No specific data.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No specific data.
	100mM DTT Dx	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	: 2X Brilliant III qRT-PCR Master Mix Dx	No known significant effects or critical hazards.
	RT/RNase Block Dx	No known significant effects or critical hazards.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
	100mM DTT Dx	No known significant effects or critical hazards.
Carcinogenicity	: 2X Brilliant III qRT-PCR Master Mix Dx	No known significant effects or critical hazards.
	RT/RNase Block Dx	No known significant effects or critical hazards.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
	100mM DTT Dx	No known significant effects or critical hazards.
Mutagenicity	: 2X Brilliant III qRT-PCR Master Mix Dx	No known significant effects or critical hazards.
	RT/RNase Block Dx	No known significant effects or critical hazards.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
	100mM DTT Dx	No known significant effects or critical hazards.

Section 11. Toxicological information

Reproductive toxicity	: 2X Brilliant III qRT-PCR Master Mix Dx	No known significant effects or critical hazards.
	RT/RNase Block Dx	No known significant effects or critical hazards.
	Reference Dye Dx	No known significant effects or critical hazards.
	10X SARS-CoV-2 Primer/Probe Mix Dx	No known significant effects or critical hazards.
	100mM DTT Dx	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2X Brilliant III qRT-PCR Master Mix Dx					
2X Brilliant III qRT-PCR Master Mix Dx	182772.3	N/A	N/A	N/A	N/A
Glycerol	12600	N/A	N/A	N/A	N/A
Potassium chloride	2600	N/A	N/A	N/A	N/A
Polyoxyethylene octyl phenyl ether	1800	N/A	N/A	N/A	N/A
RT/RNase Block Dx					
Glycerol	12600	N/A	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	500	N/A	N/A	N/A	N/A
100mM DTT Dx					
100mM DTT Dx	33333.3	N/A	N/A	N/A	N/A
(R*,R*)-1,4-Dimercaptobutane-2,3-diol	500	N/A	N/A	N/A	N/A

Other information	: RT/RNase Block Dx	Adverse symptoms may include the following: May cause skin sensitization.
	100mM DTT Dx	Adverse symptoms may include the following: May cause skin sensitization.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2X Brilliant III qRT-PCR Master Mix Dx			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Potassium chloride	Acute EC50 9.24 g/L Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Acute EC50 1337000 µg/l Fresh water	Algae - <i>Navicula seminulum</i>	96 hours
	Acute LC50 9.68 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	48 hours
	Acute LC50 93000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 509.65 mg/l Fresh water	Fish - <i>Danio rerio</i>	96 hours
Polyoxyethylene octyl phenyl ether	Acute LC50 5.85 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia rigaudi</i> - Neonate	48 hours
	Acute LC50 11.2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 4500 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Chronic NOEC 0.004 mg/l Fresh water	Fish - <i>Gambusia holbrooki</i>	28 days

Section 12. Ecological information

RT/RNase Block Dx Glycerol Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Acute LC50 54000 mg/l Fresh water Acute EC50 210 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i> Algae - <i>Selenastrum sp.</i>	96 hours 96 hours
	Acute LC50 10800 µg/l Marine water	Crustaceans - <i>Pandalus montagui</i> - Adult	48 hours
	Acute LC50 2.518 mg/l Fresh water Acute LC50 7200 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> Fish - <i>Oncorhynchus mykiss</i>	48 hours 96 hours
100mM DTT Dx (R*,R*) -1,4-Dimercaptobutane- 2,3-diol	Acute LC50 27000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2X Brilliant III qRT-PCR Master Mix Dx Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
RT/RNase Block Dx Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2X Brilliant III qRT-PCR Master Mix Dx Potassium chloride Polyoxyethylene octyl phenyl ether	- -	- -	Readily Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2X Brilliant III qRT-PCR Master Mix Dx Glycerol Potassium chloride Polyoxyethylene octyl phenyl ether	-1.76 -0.46 4.86	- - -	Low Low High
RT/RNase Block Dx Glycerol Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	-1.76 2.7	- 78.67	Low Low

Mobility in soil

Section 12. Ecological information

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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

TDG / 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 IMO instruments : Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Canada : Not determined.

United States : Not determined.

Section 16. Other information

History

Date of issue/Date of revision : 02/05/2024

Date of previous issue : 02/15/2021

Version : 3

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 HPR = Hazardous Products Regulations
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
2X Brilliant III qRT-PCR Master Mix Dx EYE IRRITATION - Category 2B	Calculation method
RT/RNase Block Dx EYE IRRITATION - Category 2B	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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