

SAFETY DATA SHEET

Baculovirus QPCR Quantification Kit

Section 1. Identification

Product identifier	: Baculovirus QPCR Quantification Kit		
Part no. (chemical kit)	: 930492		
Part no.	: OET RNase-Free Water		930492-53
	Primer/Probe Mix Lyophilized		930492-52
	2X Brilliant II QPCR Low ROX Master Mix		930492-51
	OET Lysis Buffer		100602

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

Identified uses	: Analytical reagent.		
	OET RNase-Free Water		2 x 1.9 ml
	Primer/Probe Mix Lyophilized		< 0.1 mg
	2X Brilliant II QPCR Low ROX Master Mix		1.3 ml
	OET Lysis Buffer		1 ml

Supplier/Manufacturer	: Agilent Technologies, Inc. 5301 Stevens Creek Blvd Santa Clara, CA 95051, USA 800-227-9770		
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Emergency telephone number (with hours of operation)	: CHEMTREC®: 1-800-424-9300		
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Section 2. Hazard identification

Classification of the substance or mixture

**2X Brilliant II QPCR Low
ROX Master Mix**
H320

EYE IRRITATION - Category 2B

OET Lysis Buffer
H315
H319

SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms : OET Lysis Buffer



Signal word	: OET RNase-Free Water	No signal word.
	Primer/Probe Mix	No signal word.
	Lyophilized	
	2X Brilliant II QPCR Low	Warning
	ROX Master Mix	
	OET Lysis Buffer	Warning

Section 2. Hazard identification

Hazard statements	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. H320 - Causes eye irritation. H315 - Causes skin irritation. H319 - Causes serious eye irritation.
Precautionary statements		
Prevention	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	Not applicable. Not applicable. Not applicable. P280 - Wear protective gloves. Wear eye or face protection. P264 - Wash thoroughly after handling.
Response	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	Not applicable. Not applicable. 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. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. 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.
Storage	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	Not applicable. Not applicable. Not applicable. Not applicable.
Disposal	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	Not applicable. Not applicable. Not applicable. Not applicable.
Supplemental label elements	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer OET Lysis Buffer	None known. None known. None known. None known. Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 100%

Section 2. Hazard identification

Other hazards which do not result in classification	: OET RNase-Free Water	None known.
	Primer/Probe Mix	None known.
	Lyophilized	
	2X Brilliant II QPCR Low	None known.
	ROX Master Mix	
	OET Lysis Buffer	None known.

Section 3. Composition/information on ingredients

Substance/mixture	: OET RNase-Free Water	Substance
	Primer/Probe Mix	Mixture
	Lyophilized	
	2X Brilliant II QPCR Low	Mixture
	ROX Master Mix	
	OET Lysis Buffer	Mixture

Ingredient name	Synonyms	% (w/w)	CAS number
OET RNase-Free Water water	Water	100	7732-18-5
2X Brilliant II QPCR Low ROX Master Mix Glycerol	Glycerol	≥10 - ≤30	56-81-5
Magnesium chloride	Magnesium chloride	≥0.1 - ≤1	7786-30-3
OET Lysis Buffer Proprietary Lysis solution	Proprietary Lysis solution	≥80	-

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	: OET RNase-Free Water	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/Probe Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Lyophilized	
	2X Brilliant II QPCR Low	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.
	ROX Master Mix	
	OET Lysis Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue

Section 4. First-aid measures

Inhalation	: OET RNase-Free Water	to rinse for at least 10 minutes. Get medical attention.
	Primer/Probe Mix Lyophilized	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	2X Brilliant II QPCR Low ROX Master Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	OET Lysis Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: OET RNase-Free Water	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.
	Primer/Probe Mix Lyophilized	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	2X Brilliant II QPCR Low ROX Master Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	OET Lysis Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: OET RNase-Free Water	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.
	Primer/Probe Mix Lyophilized	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	2X Brilliant II QPCR Low ROX Master Mix	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed

Section 4. First-aid measures

OET Lysis Buffer

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.

Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. Causes serious eye irritation.
Inhalation	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	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	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes skin irritation.
Ingestion	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	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.

Over-exposure signs/symptoms

Section 4. First-aid measures

Eye contact	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix	No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness
	: OET Lysis Buffer	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No specific data. No specific data. No specific data. No specific data. No specific data.
	Skin contact	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer
Ingestion	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No specific data. No specific data. No specific data. No specific data. No specific data.

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

Notes to physician	: OET RNase-Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	: Primer/Probe Mix Lyophilized	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	: 2X Brilliant II QPCR Low ROX Master Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	: OET Lysis Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: OET RNase-Free Water	No specific treatment.
	: Primer/Probe Mix	No specific treatment.
	: Lyophilized	No specific treatment.
	: 2X Brilliant II QPCR Low ROX Master Mix	No specific treatment.
	: OET Lysis Buffer	No specific treatment.

Section 4. First-aid measures

Protection of first-aiders	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
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See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	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.
Unsuitable extinguishing media	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	None known. None known. None known. None known.
Specific hazards arising from the chemical	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	In a fire or if heated, a pressure increase will occur and the container may burst. No specific fire or explosion hazard. 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	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide No specific data.

Section 5. Fire-fighting measures

Special protective actions for fire-fighters	: OET RNase-Free Water	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/Probe Mix Lyophilized	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 II QPCR Low ROX 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.
	OET Lysis Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: OET RNase-Free Water	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Primer/Probe Mix Lyophilized	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 II QPCR Low ROX 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.
	OET Lysis Buffer	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	: OET RNase-Free Water	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/Probe Mix Lyophilized	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 II QPCR Low ROX 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.
	OET Lysis Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk

Section 6. Accidental release measures

For emergency responders : OET RNase-Free Water

Primer/Probe Mix
Lyophilized

2X Brilliant II QPCR Low
ROX Master Mix

OET Lysis Buffer

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

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".

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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 : OET RNase-Free Water

Primer/Probe Mix
Lyophilized

2X Brilliant II QPCR Low
ROX Master Mix

OET Lysis Buffer

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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).

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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 : OET RNase-Free Water

Primer/Probe Mix
Lyophilized

2X Brilliant II QPCR Low
ROX Master Mix

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

Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste 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 6. Accidental release measures

OET Lysis Buffer

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

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: OET RNase-Free Water

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

Primer/Probe Mix
Lyophilized

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

2X Brilliant II QPCR Low
ROX 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.

OET Lysis Buffer

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.

Advice on general occupational hygiene

: OET RNase-Free Water

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/Probe Mix
Lyophilized

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 II QPCR Low
ROX 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.

OET Lysis Buffer

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : OET RNase-Free Water

Primer/Probe Mix
Lyophilized

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.

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.

2X Brilliant II QPCR Low
ROX Master Mix

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

OET Lysis Buffer

Do not store above the following temperature: -20°C (-4°F). 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](#)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
2X Brilliant II QPCR Low ROX Master Mix Glycerol	CA Alberta Provincial (Canada, 3/2023). OEL: 10 mg/m ³ 8 hours. Form: Mist CA Quebec Provincial (Canada, 9/2023). TWAEV: 10 mg/m ³ 8 hours. Form: mist CA Saskatchewan Provincial (Canada, 4/2021). STEL: 20 mg/m ³ 15 minutes. Form: mist TWA: 10 mg/m ³ 8 hours. Form: mist CA British Columbia Provincial (Canada, 8/2023). TWA: 3 mg/m ³ 8 hours. Form: respirable mist TWA: 10 mg/m ³ 8 hours. Form: total mist

Biological exposure indices

No exposure indices known.

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

Individual protection measures

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

Section 8. Exposure controls/personal protection

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	: OET RNase-Free Water	Liquid.
	Primer/Probe Mix	Solid.
	Lyophilized	
	2X Brilliant II QPCR Low	Liquid.
	ROX Master Mix	
	OET Lysis Buffer	Liquid. [Viscous liquid.]
Color	: OET RNase-Free Water	Colorless.
	Primer/Probe Mix	Not available.
	Lyophilized	
	2X Brilliant II QPCR Low	Not available.
	ROX Master Mix	
	OET Lysis Buffer	Colorless.
Odor	: OET RNase-Free Water	Odorless.
	Primer/Probe Mix	Not available.
	Lyophilized	
	2X Brilliant II QPCR Low	Not available.
	ROX Master Mix	
	OET Lysis Buffer	Not available.
Odor threshold	: OET RNase-Free Water	Not available.
	Primer/Probe Mix	Not available.
	Lyophilized	
	2X Brilliant II QPCR Low	Not available.
	ROX Master Mix	
	OET Lysis Buffer	Not available.
pH	: OET RNase-Free Water	7
	Primer/Probe Mix	Not available.
	Lyophilized	
	2X Brilliant II QPCR Low	Not available.
	ROX Master Mix	
	OET Lysis Buffer	Not available.
Melting point/freezing point	: OET RNase-Free Water	0°C (32°F)
	Primer/Probe Mix	Not available.
	Lyophilized	
	2X Brilliant II QPCR Low	Not available.
	ROX Master Mix	
	OET Lysis Buffer	Not available.
Boiling point, initial boiling point, and boiling range	: OET RNase-Free Water	100°C (212°F)
	Primer/Probe Mix	Not available.
	Lyophilized	
	2X Brilliant II QPCR Low	Not available.
	ROX Master Mix	
	OET Lysis Buffer	Not available.
Flash point	:	

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
2X Brilliant II QPCR Low ROX Master Mix						
Glycerol	-	-	-	177	350.6	-

Evaporation rate	: OET RNase-Free Water	Not available.
	Primer/Probe Mix	Not available.
	Lyophilized	
	2X Brilliant II QPCR Low ROX Master Mix	Not available.
	OET Lysis Buffer	Not available.
Flammability	: OET RNase-Free Water	Not applicable.
	Primer/Probe Mix	Not available.
	Lyophilized	
	2X Brilliant II QPCR Low ROX Master Mix	Not applicable.
	OET Lysis Buffer	Not applicable.
Lower and upper explosion limit/flammability limit	: OET RNase-Free Water	Not available.
	Primer/Probe Mix	Not applicable.
	Lyophilized	
	2X Brilliant II QPCR Low ROX Master Mix	Not available.
	OET Lysis Buffer	Not available.
Vapor pressure	: OET RNase-Free Water	2.3 kPa (17.5 mm Hg) [room temperature] 12.3 kPa (92.258 mm Hg) [50°C (122°F)]

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
2X Brilliant II QPCR Low ROX Master Mix						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
OET Lysis Buffer						
water	17.5	2.3	-	92.258	12.3	-

Relative vapor density	: OET RNase-Free Water	0.62 [Air = 1]
	Primer/Probe Mix	Not applicable.
	Lyophilized	
	2X Brilliant II QPCR Low ROX Master Mix	Not available.
	OET Lysis Buffer	Not available.
Relative density	: OET RNase-Free Water	1
	Primer/Probe Mix	Not available.
	Lyophilized	
	2X Brilliant II QPCR Low ROX Master Mix	Not available.
	OET Lysis Buffer	Not available.

Section 9. Physical and chemical properties and safety characteristics

Solubility(ies)	Media	Result		
	Primer/Probe Mix Lyophilized water 2X Brilliant II QPCR Low ROX Master Mix water	Soluble Soluble		
Partition coefficient: n-octanol/water	OET RNase-Free Water	-1.38		
	Primer/Probe Mix Lyophilized	Not applicable.		
	2X Brilliant II QPCR Low ROX Master Mix	Not applicable.		
	OET Lysis Buffer	Not applicable.		
Auto-ignition temperature	Ingredient name	°C	°F	Method
	2X Brilliant II QPCR Low ROX Master Mix			
	Glycerol	370	698	-
Decomposition temperature	OET RNase-Free Water	Not available.		
	Primer/Probe Mix Lyophilized	Not available.		
	2X Brilliant II QPCR Low ROX Master Mix	Not available.		
	OET Lysis Buffer	Not available.		
Viscosity	OET RNase-Free Water	Not available.		
	Primer/Probe Mix Lyophilized	Not applicable.		
	2X Brilliant II QPCR Low ROX Master Mix	Not available.		
	OET Lysis Buffer	Not available.		
Particle characteristics				
Median particle size	OET RNase-Free Water	Not applicable.		
	Primer/Probe Mix Lyophilized	Not available.		
	2X Brilliant II QPCR Low ROX Master Mix	Not applicable.		
	OET Lysis Buffer	Not applicable.		

Section 10. Stability and reactivity

Reactivity	OET RNase-Free Water	No specific test data related to reactivity available for this product or its ingredients.
	Primer/Probe Mix Lyophilized	No specific test data related to reactivity available for this product or its ingredients.
	2X Brilliant II QPCR Low ROX Master Mix	No specific test data related to reactivity available for this product or its ingredients.
	OET Lysis Buffer	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	OET RNase-Free Water	The product is stable.
	Primer/Probe Mix Lyophilized	The product is stable.
	2X Brilliant II QPCR Low ROX Master Mix	The product is stable.
	OET Lysis Buffer	The product is stable.

Section 10. Stability and reactivity

Possibility of hazardous reactions	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	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	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No specific data. No specific data. No specific data. No specific data.
Incompatible materials	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.
Hazardous decomposition products	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	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 II QPCR Low ROX Master Mix Glycerol Magnesium chloride	LD50 Oral	Rat	12600 mg/kg	-
	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2X Brilliant II QPCR Low ROX Master Mix Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Section 11. Toxicological information

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	Not available. Not available. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
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Potential acute health effects

Eye contact	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. Causes serious eye irritation.
Inhalation	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	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	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes skin irritation.
Ingestion	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	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

Section 11. Toxicological information

Eye contact	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix	No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness
	: OET Lysis Buffer	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No specific data. No specific data. No specific data. No specific data.
	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation redness
Ingestion	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No specific data. No specific data. No specific data. No specific data.
	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation redness

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	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	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

Mutagenicity	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	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.
Reproductive toxicity	: OET RNase-Free Water Primer/Probe Mix Lyophilized 2X Brilliant II QPCR Low ROX Master Mix OET Lysis Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2X Brilliant II QPCR Low ROX Master Mix					
Glycerol	12600	N/A	N/A	N/A	N/A
Magnesium chloride	2800	2500	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2X Brilliant II QPCR Low ROX Master Mix			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Magnesium chloride	Acute EC50 >100 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Acute EC50 180000 µg/l Fresh water	Crustaceans - <i>Eudiaptomus padanus</i> ssp. <i>padanus</i> - Adult	48 hours
	Acute IC50 6.8 mg/l Fresh water	Aquatic plants - <i>Lemna aequinoctialis</i>	96 hours
	Acute LC50 32000 µg/l Fresh water	Daphnia - <i>Daphnia hyalina</i> - Adult	48 hours
	Acute LC50 2120 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute NOEC 100 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Chronic NOEC 0.1 mg/l Fresh water	Fish - <i>Cyprinus carpio</i>	35 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2X Brilliant II QPCR Low ROX Master Mix				
Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
OET RNase-Free Water water	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
OET RNase-Free Water water	-1.38	-	Low
2X Brilliant II QPCR Low ROX Master Mix Glycerol	-1.76	-	Low

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or 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.

Section 15. Regulatory information

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 : 08/30/2024

Date of previous issue : No previous validation

Version : 1

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 II QPCR Low ROX Master Mix EYE IRRITATION - Category 2B	Calculation method
OET Lysis Buffer SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A	Calculation method Calculation method

✔ Indicates information that has changed from previously issued version.

Notice to reader

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