

SAFETY DATA SHEET



Brilliant II QPCR Master Mix 10-pack, Part Number 600815

Section 1. Identification

1.1 Product identifier

Product name : Brilliant II QPCR Master Mix 10-pack, Part Number 600815
Part No. (Chemical Kit) : 600815
Part No. : 2× Brilliant II QPCR Master Mix 600804-51
 Reference dye, 1mM 600530-53
Validation date : 4/28/2014.

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

Material uses : Analytical reagent.
 2× Brilliant II QPCR Master Mix 50 ml (20 tubes each containing 2.5 ml)
 Reference dye, 1mM 1 ml

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
 Logistics Center - Americas
 500 Ships Landing Way
 New Castle, Delaware 19720
 800-227-9770

1.4 Emergency telephone number

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

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : 2× Brilliant II QPCR Master Mix This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 Reference dye, 1mM This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

2× Brilliant II QPCR Master Mix
 H320 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
 H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Reference dye, 1mM
 H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Ingredients of unknown toxicity : 2× Brilliant II QPCR Master Mix Not applicable.
 Reference dye, 1mM Percentage of the mixture consisting of ingredient (s) of unknown toxicity: 2.4%

2.2 GHS label elements

Section 2. Hazards identification

Hazard pictograms



Signal word

: 2× Brilliant II QPCR Master Mix Warning
Reference dye, 1mM Warning

Hazard statements

: 2× Brilliant II QPCR Master Mix H320 - Causes eye irritation.
Reference dye, 1mM H373 - May cause damage to organs through
prolonged or repeated exposure.
H373 - May cause damage to organs through
prolonged or repeated exposure.

Precautionary statements

Prevention

: 2× Brilliant II QPCR Master Mix P280 - Wear eye or face protection.
Reference dye, 1mM P260 - Do not breathe vapor.
P264 - Wash hands thoroughly after handling.
P260 - Do not breathe vapor.

Response

: 2× Brilliant II QPCR Master Mix P314 - Get medical attention if you feel unwell.
Reference dye, 1mM P305 + P351 + P338 - IF IN EYES: Rinse
cautiously with water for several minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
P337 + P313 - If eye irritation persists: Get
medical attention.
P314 - Get medical attention if you feel unwell.

Storage

: 2× Brilliant II QPCR Master Mix Not applicable.
Reference dye, 1mM Not applicable.

Disposal

: 2× Brilliant II QPCR Master Mix P501 - Dispose of contents and container in
accordance with all local, regional, national and
international regulations.
Reference dye, 1mM P501 - Dispose of contents and container in
accordance with all local, regional, national and
international regulations.

Supplemental label elements

: 2× Brilliant II QPCR Master Mix None known.
Reference dye, 1mM None known.

2.3 Other hazards

Hazards not otherwise classified

: 2× Brilliant II QPCR Master Mix None known.
Reference dye, 1mM None known.

Section 3. Composition/information on ingredients

Substance/mixture

: 2× Brilliant II QPCR Master Mix Mixture
Reference dye, 1mM Mixture

Ingredient name	%	CAS number
2× Brilliant II QPCR Master Mix Glycerol	10 - 30	56-81-5
Reference dye, 1mM Potassium chloride	1 - 5	7447-40-7
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	1 - 5	1185-53-1

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

Section 3. Composition/information on ingredients

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

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact	: 2× Brilliant II QPCR Master Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.
	Reference dye, 1mM	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.
Inhalation	: 2× Brilliant II QPCR Master Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. 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, 1mM	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 following exposure or if feeling unwell. 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. 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.
Skin contact	: 2× Brilliant II QPCR Master Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Reference dye, 1mM	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes

Section 4. First aid measures

Ingestion : 2× Brilliant II QPCR Master Mix

thoroughly before reuse.

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. 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, 1mM

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. 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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 2× Brilliant II QPCR Master Mix
Reference dye, 1mM

Causes eye irritation.
No known significant effects or critical hazards.

Inhalation : 2× Brilliant II QPCR Master Mix
Reference dye, 1mM

No known significant effects or critical hazards.
Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : 2× Brilliant II QPCR Master Mix
Reference dye, 1mM

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

Ingestion : 2× Brilliant II QPCR Master Mix
Reference dye, 1mM

May be irritating to mouth, throat and stomach.
No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : 2× Brilliant II QPCR Master Mix

Reference dye, 1mM

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

Inhalation : 2× Brilliant II QPCR Master Mix
Reference dye, 1mM

No specific data.
No specific data.

Skin contact : 2× Brilliant II QPCR Master Mix
Reference dye, 1mM

No specific data.
No specific data.

Section 4. First aid measures

Ingestion : 2× Brilliant II QPCR Master Mix Reference dye, 1mM
No specific data.
No specific data.

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

Notes to physician : 2× Brilliant II QPCR Master Mix Reference dye, 1mM
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : 2× Brilliant II QPCR Master Mix Reference dye, 1mM
No specific treatment.
No specific treatment.

Protection of first-aiders : 2× Brilliant II QPCR Master Mix Reference dye, 1mM
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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media : 2× Brilliant II QPCR Master Mix Reference dye, 1mM
Use an extinguishing agent suitable for the surrounding fire.
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : 2× Brilliant II QPCR Master Mix Reference dye, 1mM
None known.
None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical : 2× Brilliant II QPCR Master Mix Reference dye, 1mM
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 : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : 2× Brilliant II QPCR Master Mix Reference dye, 1mM
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	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
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Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	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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6.3 Methods and materials for containment and cleaning up

2× Brilliant II QPCR Master Mix	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Reference dye, 1mM	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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. Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an
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Section 7. Handling and storage

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	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.	
7.2 Conditions for safe storage, including any incompatibilities	: 2× Brilliant II QPCR Master Mix	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
	Reference dye, 1mM	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.

7.3 Specific end use(s)

Recommendations	: 2× Brilliant II QPCR Master Mix	Industrial applications, Professional applications.
	Reference dye, 1mM	Industrial applications, Professional applications.
Industrial sector specific solutions	: Not applicable.	

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2× Brilliant II QPCR Master Mix Glycerol	OSHA PEL (United States, 2/2013). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust

Section 8. Exposure controls/personal protection

8.2 Exposure controls

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

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

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Liquid. Liquid.
Color	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Odor	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Odor threshold	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
pH	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. 8

Section 9. Physical and chemical properties

Melting point	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Boiling point	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Flash point	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Evaporation rate	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Flammability (solid, gas)	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not applicable. Not applicable.
Lower and upper explosive (flammable) limits	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Vapor pressure	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Vapor density	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Relative density	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Solubility	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
Solubility in water	: Not available.	
Partition coefficient: n-octanol/water	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Auto-ignition temperature	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Decomposition temperature	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
Viscosity	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No specific data. No specific data.
10.5 Incompatible materials	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No specific data. No specific data.

Section 10. Stability and reactivity

10.6 Hazardous decomposition products	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	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.
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Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2× Brilliant II QPCR Master Mix Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Reference dye, 1mM Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2× Brilliant II QPCR Master Mix Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		24 hours 500 milligrams
Reference dye, 1mM Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Reference dye, 1mM 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
2× Brilliant II QPCR Master Mix Glycerol	Category 2	Inhalation	kidneys
Reference dye, 1mM Potassium chloride	Category 2	Not determined	gastrointestinal tract

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Causes eye irritation. No known significant effects or critical hazards.
Inhalation	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	May be irritating to mouth, throat and stomach. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Adverse symptoms may include the following: irritation watering redness No specific data.
Inhalation	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No specific data. No specific data.
Skin contact	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No specific data. No specific data.
Ingestion	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No specific data. 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

Not available.

Section 11. Toxicological information

General	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	May cause damage to organs through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Reference dye, 1mM Oral	70270.3 mg/kg

Other information	: 2× Brilliant II QPCR Master Mix Reference dye, 1mM	Not available. Not available.
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Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Reference dye, 1mM Potassium chloride	Acute EC50 1337000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 83000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 9.68 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
	Acute LC50 880000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2× Brilliant II QPCR Master Mix Glycerol	-1.76	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc})	: Not available.
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Section 12. Ecological information

12.5 Other adverse effects : 2× Brilliant II QPCR Master Mix Reference dye, 1mM No known significant effects or critical hazards.
No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

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

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

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

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

Section 14. Transport information

Regulatory information

DOT / IMDG / IATA : Not regulated.

Section 15. Regulatory information

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

U.S. Federal regulations : **TSCA 8(a) PAIR**: Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-
United States inventory (TSCA 8b): At least one component is not listed.
Clean Water Act (CWA) 311: Edetic acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Section 15. Regulatory information

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
2× Brilliant II QPCR Master Mix Glycerol	10 - 30	No.	No.	No.	Yes.	Yes.
Reference dye, 1mM Potassium chloride	1 - 5	No.	No.	No.	Yes.	Yes.
2-Amino-2-(hydroxymethyl)propane-1, 3-diol hydrochloride	1 - 5	No.	No.	No.	Yes.	No.

State regulations

Massachusetts : The following components are listed: GLYCERINE MIST

New York : None of the components are listed.

New Jersey : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL

Pennsylvania : The following components are listed: 1,2,3-PROPANETRIOL

California Prop. 65

No products were found.

Canada inventory : Not determined.

International regulations

International lists :

- Australia inventory (AICS)**: At least one component is not listed.
- China inventory (IECSC)**: At least one component is not listed.
- Japan inventory**: Not determined.
- Korea inventory**: Not determined.
- Malaysia Inventory (EHS Register)**: Not determined.
- New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
- Philippines inventory (PICCS)**: Not determined.
- Taiwan inventory (CSNN)**: Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

Section 16. Other information

History

Date of issue : 4/28/2014.

Date of previous issue : 3/05/2012.

Version : 3

✔ Indicates information that has changed from previously issued version.

Notice to reader

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