

# SAFETY DATA SHEET



Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600882

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** : Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600882  
**Part no. (chemical kit)** : 600882  
**Part no.** : Reference Dye 600530-53  
2X Brilliant III SYBR® 600882-51  
Green QPCR Master Mix

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

**Material uses** : Analytical reagent.  
Reference Dye 0.1 ml (100 µl 1 mM)  
2X Brilliant III SYBR® Green QPCR Master Mix 2 x 2 ml  
Mix

### 1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG  
Hewlett-Packard-Str. 8  
76337 Waldbronn  
Germany  
0800 603 1000

**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

### 1.4 Emergency telephone number

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +(44)-870-8200418

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Reference Dye Mixture  
2X Brilliant III SYBR® Mixture  
Green QPCR Master Mix

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

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

**Ingredients of unknown ecotoxicity** : Reference Dye Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.4%

See Section 16 for the full text of the H statements declared above.

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## SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Signal word** : Reference Dye No signal word.  
 2X Brilliant III SYBR® No signal word.  
 Green QPCR Master Mix

**Hazard statements** : Reference Dye No known significant effects or critical hazards.  
 2X Brilliant III SYBR® No known significant effects or critical hazards.  
 Green QPCR Master Mix

#### Precautionary statements

**Prevention** : Reference Dye Not applicable.  
 2X Brilliant III SYBR® Not applicable.  
 Green QPCR Master Mix

**Response** : Reference Dye Not applicable.  
 2X Brilliant III SYBR® Not applicable.  
 Green QPCR Master Mix

**Storage** : Reference Dye Not applicable.  
 2X Brilliant III SYBR® Not applicable.  
 Green QPCR Master Mix

**Disposal** : Reference Dye Not applicable.  
 2X Brilliant III SYBR® Not applicable.  
 Green QPCR Master Mix

**Hazardous ingredients** : Reference Dye Not applicable.

**Supplemental label elements** : Reference Dye Safety data sheet available on request.  
 2X Brilliant III SYBR® Not applicable.  
 Green QPCR Master Mix

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Reference Dye Not applicable.  
 2X Brilliant III SYBR® Not applicable.  
 Green QPCR Master Mix

#### Special packaging requirements

**Tactile warning of danger** : Reference Dye Not applicable.  
 2X Brilliant III SYBR® Not applicable.  
 Green QPCR Master Mix

### 2.3 Other hazards

**Other hazards which do not result in classification** : Reference Dye None known.  
 2X Brilliant III SYBR® None known.  
 Green QPCR Master Mix

## SECTION 3: Composition/information on ingredients

**3.1 Substances** : Reference Dye Mixture  
 2X Brilliant III SYBR® Green Mixture  
 QPCR Master Mix

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type

**Brilliant III Ultra-Fast SYBR Green QPCR Master Mix, Part Number 600882**

**SECTION 3: Composition/information on ingredients**

<p><b>Reference Dye</b> 2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride</p>	<p>EC: 214-684-5 CAS: 1185-53-1</p>	<p>≤3</p>	<p>Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335</p>	<p>[1]</p>
<p><b>2X Brilliant III SYBR® Green QPCR Master Mix</b> Glycerol</p>	<p>REACH #: Annex V EC: 200-289-5 CAS: 56-81-5</p>	<p>≥10 - ≤25</p>	<p>Not classified.</p> <p><b>See Section 16 for the full text of the H statements declared above.</b></p>	<p>[2]</p>

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.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

<p><b>Eye contact</b></p>	<p>: Reference Dye</p> <p>2X Brilliant III SYBR® Green QPCR Master Mix</p>	<p>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.</p> <p>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.</p>
<p><b>Inhalation</b></p>	<p>: Reference Dye</p> <p>2X Brilliant III SYBR® Green QPCR Master Mix</p>	<p>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.</p> <p>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</p>
<p><b>Skin contact</b></p>	<p>: Reference Dye</p> <p>2X Brilliant III SYBR® Green QPCR Master Mix</p>	<p>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</p> <p>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</p>
<p><b>Ingestion</b></p>	<p>: Reference Dye</p> <p>2X Brilliant III SYBR® Green QPCR Master Mix</p>	<p>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.</p> <p>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.</p>

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**SECTION 4: First aid measures**

<b>Protection of first-aiders</b>	: Reference Dye	No action shall be taken involving any personal risk or without suitable training.
	2X Brilliant III SYBR®	No action shall be taken involving any personal risk or without suitable training.
	Green QPCR Master Mix	

**4.2 Most important symptoms and effects, both acute and delayed**

Potential acute health effects

<b>Eye contact</b>	: Reference Dye	No known significant effects or critical hazards.
	2X Brilliant III SYBR®	No known significant effects or critical hazards.
	Green QPCR Master Mix	
<b>Inhalation</b>	: Reference Dye	No known significant effects or critical hazards.
	2X Brilliant III SYBR®	No known significant effects or critical hazards.
	Green QPCR Master Mix	
<b>Skin contact</b>	: Reference Dye	No known significant effects or critical hazards.
	2X Brilliant III SYBR®	No known significant effects or critical hazards.
	Green QPCR Master Mix	
<b>Ingestion</b>	: Reference Dye	No known significant effects or critical hazards.
	2X Brilliant III SYBR®	No known significant effects or critical hazards.
	Green QPCR Master Mix	

Over-exposure signs/symptoms

<b>Eye contact</b>	: Reference Dye	No specific data.
	2X Brilliant III SYBR®	No specific data.
	Green QPCR Master Mix	
<b>Inhalation</b>	: Reference Dye	No specific data.
	2X Brilliant III SYBR®	No specific data.
	Green QPCR Master Mix	
<b>Skin contact</b>	: Reference Dye	No specific data.
	2X Brilliant III SYBR®	No specific data.
	Green QPCR Master Mix	
<b>Ingestion</b>	: Reference Dye	No specific data.
	2X Brilliant III SYBR®	No specific data.
	Green QPCR Master Mix	

**4.3 Indication of any immediate medical attention and special treatment needed**

<b>Notes to physician</b>	: Reference Dye	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	2X Brilliant III SYBR®	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Green QPCR Master Mix	
<b>Specific treatments</b>	: Reference Dye	No specific treatment.
	2X Brilliant III SYBR®	No specific treatment.
	Green QPCR Master Mix	

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

<b>Suitable extinguishing media</b>	: Reference Dye	Use an extinguishing agent suitable for the surrounding fire.
	2X Brilliant III SYBR®	Use an extinguishing agent suitable for the surrounding fire.
	Green QPCR Master Mix	
<b>Unsuitable extinguishing media</b>	: Reference Dye	None known.
	2X Brilliant III SYBR®	None known.
	Green QPCR Master Mix	

**5.2 Special hazards arising from the substance or mixture**

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**SECTION 5: Firefighting measures**

<b>Hazards from the substance or mixture</b>	: Reference Dye	In a fire or if heated, a pressure increase will occur and the container may burst.
	2X Brilliant III SYBR® Green QPCR Master Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous combustion products</b>	: Reference Dye	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	2X Brilliant III SYBR® Green QPCR Master Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides halogenated compounds metal oxide/oxides

**5.3 Advice for firefighters**

<b>Special precautions for fire-fighters</b>	: Reference Dye	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	2X Brilliant III SYBR® Green QPCR Master Mix	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	: Reference Dye	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	2X Brilliant III SYBR® Green QPCR Master Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

<b>For non-emergency personnel</b>	: Reference Dye	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	2X Brilliant III SYBR® Green QPCR Master Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: Reference Dye	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".
	2X Brilliant III SYBR® Green QPCR Master Mix	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".

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**SECTION 6: Accidental release measures**

<b>6.2 Environmental precautions</b>	: Reference Dye	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	2X Brilliant III SYBR® Green QPCR Master Mix	Avoid dispersal of spilt 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).
<b>6.3 Methods and material for containment and cleaning up</b>		
<b>Methods for cleaning up</b>	: Reference Dye	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	2X Brilliant III SYBR® Green QPCR Master Mix	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
<b>6.4 Reference to other sections</b>	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.	

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

<b>Protective measures</b>	: Reference Dye	Put on appropriate personal protective equipment (see Section 8).
	2X Brilliant III SYBR® Green QPCR Master Mix	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	: Reference Dye	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	2X Brilliant III SYBR® Green QPCR Master Mix	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities**

<b>Storage</b>	: Reference Dye	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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	2X Brilliant III SYBR® Green 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

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## SECTION 7: Handling and storage

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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

<b>Recommendations</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Industrial applications, Professional applications. Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not applicable. Not applicable.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
2X Brilliant III SYBR® Green QPCR Master Mix Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist

<b>Recommended monitoring procedures</b>	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
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#### DNELs/DMELs

No DNELs/DMELs available.

#### PNECs

No PNECs available

### 8.2 Exposure controls

<b>Appropriate engineering controls</b>	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
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#### Individual protection measures

<b>Hygiene measures</b>	: 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.
<b>Eye/face protection</b>	: 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.

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## SECTION 8: Exposure controls/personal protection

### 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.
- 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.
- 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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Liquid. Liquid.
<b>Colour</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Odour</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Odour threshold</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>pH</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	8 7.8
<b>Melting point/freezing point</b>	: <input checked="" type="checkbox"/> Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Initial boiling point and boiling range</b>	: <input checked="" type="checkbox"/> Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Flash point</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.



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## SECTION 9: Physical and chemical properties

<b>Evaporation rate</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Flammability (solid, gas)</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not applicable. Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Vapour pressure</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Vapour density</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Relative density</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Solubility(ies)</b>	: Reference Dye  2X Brilliant III SYBR® Green QPCR Master Mix	Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Auto-ignition temperature</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Decomposition temperature</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Viscosity</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Explosive properties</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.
<b>Oxidising properties</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Not available. Not available.

### 9.2 Other information

No additional information.

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## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	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.
<b>10.2 Chemical stability</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	The product is stable. The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No specific data. No specific data.
<b>10.5 Incompatible materials</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
<b>10.6 Hazardous decomposition products</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	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

### 11.1 Information on toxicological effects

#### Acute toxicity

Not available.

#### Acute toxicity estimates

Not available.

#### Irritation/Corrosion

**Conclusion/Summary** : Not available.

#### Sensitiser

**Conclusion/Summary** : 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)

Product/ingredient name	Category	Route of exposure	Target organs
<b>Reference Dye</b> 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

## SECTION 11: Toxicological information

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on likely routes of exposure** : Reference Dye Routes of entry anticipated: Oral, Dermal, Inhalation.  
2X Brilliant III SYBR® Routes of entry anticipated: Oral, Dermal, Inhalation.  
Green QPCR Master Mix

### Potential acute health effects

**Inhalation** : Reference Dye No known significant effects or critical hazards.  
2X Brilliant III SYBR® No known significant effects or critical hazards.  
Green QPCR Master Mix

**Ingestion** : Reference Dye No known significant effects or critical hazards.  
2X Brilliant III SYBR® No known significant effects or critical hazards.  
Green QPCR Master Mix

**Skin contact** : Reference Dye No known significant effects or critical hazards.  
2X Brilliant III SYBR® No known significant effects or critical hazards.  
Green QPCR Master Mix

**Eye contact** : Reference Dye No known significant effects or critical hazards.  
2X Brilliant III SYBR® No known significant effects or critical hazards.  
Green QPCR Master Mix

### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation** : Reference Dye No specific data.  
2X Brilliant III SYBR® No specific data.  
Green QPCR Master Mix

**Ingestion** : Reference Dye No specific data.  
2X Brilliant III SYBR® No specific data.  
Green QPCR Master Mix

**Skin contact** : Reference Dye No specific data.  
2X Brilliant III SYBR® No specific data.  
Green QPCR Master Mix

**Eye contact** : Reference Dye No specific data.  
2X Brilliant III SYBR® No specific data.  
Green QPCR Master Mix

### Delayed and immediate effects as well as 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** : Reference Dye No known significant effects or critical hazards.  
2X Brilliant III SYBR® No known significant effects or critical hazards.  
Green QPCR Master Mix

**Carcinogenicity** : Reference Dye No known significant effects or critical hazards.  
2X Brilliant III SYBR® No known significant effects or critical hazards.  
Green QPCR Master Mix

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## SECTION 11: Toxicological information

<b>Mutagenicity</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Teratogenicity</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Developmental effects</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Fertility effects</b>	: Reference Dye 2X Brilliant III SYBR® Green QPCR Master Mix	No known significant effects or critical hazards. No known significant effects or critical hazards.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

Not available.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

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

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised 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.

**Hazardous waste** :  Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** :  This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

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## SECTION 14: Transport information

ADR/RID / IMDG / IATA : Not regulated.

**14.6 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.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

## SECTION 15: Regulatory information

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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Reference Dye Not applicable.  
2X Brilliant III SYBR® Green Not applicable.  
QPCR Master Mix

#### Other EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Listed

#### Ozone depleting substances (1005/2009/EU)

Not listed.

#### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

#### Seveso Directive

This product is not controlled under the Seveso Directive.

#### International regulations

##### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

##### Montreal Protocol (Annexes A, B, C, E)

Not listed.

##### Stockholm Convention on Persistent Organic Pollutants

Not listed.

##### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

##### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

#### Inventory list

**Australia** : Not determined.

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## SECTION 15: Regulatory information

Canada	: Not determined.
China	: All components are listed or exempted.
Europe	: Not determined.
Japan	: <b>Japan inventory (ENCS)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

### Full text of abbreviated H statements

<input checked="" type="checkbox"/> <b>Reference Dye</b> H315 H319 H335	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
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### Full text of classifications [CLP/GHS]

<input checked="" type="checkbox"/> <b>Reference Dye</b> Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
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#### Notice to reader

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