

SAFETY DATA SHEET



High-Specificity miRNA QPCR Core Reagent Kit, Part Number 600545

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

1.1 Product identifier

Product name : High-Specificity miRNA QPCR Core Reagent Kit, Part Number 600545
Part No. (Kit) : 600545
Part No. : Reference Dye 600530-53
20X EvaGreen 600545-51
PCR Enzyme Blend 600545-52
20 mM dNTP Mix (5 mM each dNTP) 600545-53
10X Core PCR Buffer 600545-54
50 mM Magnesium Chloride 600545-55

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

Identified uses	
Analytical reagent.	
Reference Dye	0.1 ml
20X EvaGreen	0.25 ml
PCR Enzyme Blend	0.1 ml
20 mM dNTP Mix (5 mM each dNTP)	0.2 ml
10X Core PCR Buffer	0.5 ml
50 mM Magnesium Chloride	0.55 ml

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
20X EvaGreen Mixture
PCR Enzyme Blend Mixture
20 mM dNTP Mix Mixture
10X Core PCR Buffer Mixture
50 mM Magnesium Chloride Mixture

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

Not classified.

SECTION 2: Hazards identification

Ingredients of unknown toxicity	: Reference Dye	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 2.4%
	20X EvaGreen	Not applicable.
	PCR Enzyme Blend	Not applicable.
	20 mM dNTP Mix (5 mM each dNTP)	Not applicable.
	10X Core PCR Buffer	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 2.4%
Ingredients of unknown ecotoxicity	50 mM Magnesium Chloride	Not applicable.
	: Reference Dye	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.4%
	20X EvaGreen	Not applicable.
	PCR Enzyme Blend	Not applicable.
	20 mM dNTP Mix (5 mM each dNTP)	Not applicable.
10X Core PCR Buffer	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.4%	
	50 mM Magnesium Chloride	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1%

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

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

2.2 Label elements

Signal word	: Reference Dye	No signal word.
	20X EvaGreen	No signal word.
	PCR Enzyme Blend	No signal word.
	20 mM dNTP Mix	No signal word.
	10X Core PCR Buffer	No signal word.
	50 mM Magnesium Chloride	No signal word.
Hazard statements	: Reference Dye	No known significant effects or critical hazards.
	20X EvaGreen	No known significant effects or critical hazards.
	PCR Enzyme Blend	No known significant effects or critical hazards.
	20 mM dNTP Mix	No known significant effects or critical hazards.
	10X Core PCR Buffer	No known significant effects or critical hazards.
	50 mM Magnesium Chloride	No known significant effects or critical hazards.
Precautionary statements		
Prevention	: Reference Dye	Not applicable.
	20X EvaGreen	Not applicable.
	PCR Enzyme Blend	Not applicable.
	20 mM dNTP Mix	Not applicable.
	10X Core PCR Buffer	Not applicable.
	50 mM Magnesium Chloride	Not applicable.
Response	: Reference Dye	Not applicable.
	20X EvaGreen	Not applicable.
	PCR Enzyme Blend	Not applicable.
	20 mM dNTP Mix	Not applicable.
	10X Core PCR Buffer	Not applicable.
	50 mM Magnesium Chloride	Not applicable.
Storage	: Reference Dye	Not applicable.
	20X EvaGreen	Not applicable.
	PCR Enzyme Blend	Not applicable.
	20 mM dNTP Mix	Not applicable.
	10X Core PCR Buffer	Not applicable.
	50 mM Magnesium Chloride	Not applicable.

SECTION 2: Hazards identification

Disposal	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Hazardous ingredients	: No hazardous ingredient	
Supplemental label elements	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	Safety data sheet available on request. Not applicable. Not applicable. Not applicable. Safety data sheet available on request. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Special packaging requirements		
Tactile warning of danger	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

2.3 Other hazards

Other hazards which do not result in classification	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix (5 mM each dNTP) 10X Core PCR Buffer 50 mM Magnesium Chloride	None known. None known. None known. None known. None known. None known.
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SECTION 3: Composition/information on ingredients

3.2 Mixtures	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	Mixture Mixture Mixture Mixture Mixture Mixture
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Product/ingredient name	Identifiers	%	Classification	Type
Reference Dye 2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	EC: 214-684-5 CAS: 1185-53-1	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
PCR Enzyme Blend Glycerol	EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[2]
10X Core PCR Buffer				

SECTION 3: Composition/information on ingredients

2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	EC: 214-684-5 CAS: 1185-53-1	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 See Section 16 for the full text of the H statements declared above.	[1]
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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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Reference Dye	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.
	20X EvaGreen	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.
	PCR Enzyme Blend	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.
	20 mM dNTP 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.
	10X Core PCR Buffer	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.
	50 mM Magnesium Chloride	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Reference Dye	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.
	20X EvaGreen	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	PCR Enzyme Blend	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	20 mM dNTP Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	10X Core PCR Buffer	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.
	50 mM Magnesium Chloride	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

SECTION 4: First aid measures

Skin contact	: Reference Dye	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	20X EvaGreen	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	PCR Enzyme Blend	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	20 mM dNTP Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	10X Core PCR Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	50 mM Magnesium Chloride	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Reference Dye	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	20X EvaGreen	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.
	PCR Enzyme Blend	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.
	20 mM dNTP Mix	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.
	10X Core PCR Buffer	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.
	50 mM Magnesium Chloride	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.
Protection of first-aiders	: Reference Dye	No action shall be taken involving any personal risk or without suitable training.
	20X EvaGreen	No action shall be taken involving any personal risk or without suitable training.
	PCR Enzyme Blend	No action shall be taken involving any personal risk or without suitable training.
	20 mM dNTP Mix	No action shall be taken involving any personal risk or without suitable training.
	10X Core PCR Buffer	No action shall be taken involving any personal risk or without suitable training.

SECTION 4: First aid measures50 mM Magnesium
ChlorideNo action shall be taken involving any personal risk or
without suitable training.**4.2 Most important symptoms and effects, both acute and delayed****Potential acute health effects**

Eye contact	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Inhalation	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Skin contact	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

SECTION 4: First aid measures

Ingestion	:	Reference Dye	No specific data.
		20X EvaGreen	No specific data.
		PCR Enzyme Blend	No specific data.
		20 mM dNTP Mix	No specific data.
		10X Core PCR Buffer	No specific data.
		50 mM Magnesium Chloride	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	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.
		20X EvaGreen	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		PCR Enzyme Blend	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		20 mM dNTP Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		10X Core PCR Buffer	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.
		50 mM Magnesium Chloride	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	Reference Dye	No specific treatment.
		20X EvaGreen	No specific treatment.
		PCR Enzyme Blend	No specific treatment.
		20 mM dNTP Mix	No specific treatment.
		10X Core PCR Buffer	No specific treatment.
		50 mM Magnesium Chloride	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Reference Dye	Use an extinguishing agent suitable for the surrounding fire.
		20X EvaGreen	Use an extinguishing agent suitable for the surrounding fire.
		PCR Enzyme Blend	Use an extinguishing agent suitable for the surrounding fire.
		20 mM dNTP Mix	Use an extinguishing agent suitable for the surrounding fire.
		10X Core PCR Buffer	Use an extinguishing agent suitable for the surrounding fire.
		50 mM Magnesium Chloride	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	Reference Dye	None known.
		20X EvaGreen	None known.
		PCR Enzyme Blend	None known.
		20 mM dNTP Mix	None known.
		10X Core PCR Buffer	None known.
		50 mM Magnesium Chloride	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	Reference Dye	In a fire or if heated, a pressure increase will occur and the container may burst.
		20X EvaGreen	In a fire or if heated, a pressure increase will occur and the container may burst.
		PCR Enzyme Blend	In a fire or if heated, a pressure increase will occur and the container may burst.
		20 mM dNTP Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
		10X Core PCR Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
		50 mM Magnesium Chloride	In a fire or if heated, a pressure increase will occur and the container may burst.

SECTION 5: Firefighting measures

Hazardous combustion products	: Reference Dye	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	20X EvaGreen PCR Enzyme Blend	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide
	20 mM dNTP Mix 10X Core PCR Buffer	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	50 mM Magnesium Chloride	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters	: 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.
	20X EvaGreen	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.
	PCR Enzyme Blend	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.
	20 mM dNTP 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.
	10X Core PCR 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.
	50 mM Magnesium Chloride	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	: 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.
	20X EvaGreen	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.
	PCR Enzyme Blend	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.
	20 mM dNTP 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)

SECTION 5: Firefighting measures

10X Core PCR Buffer	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. 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.
50 mM Magnesium Chloride	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

For non-emergency personnel	: 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.
	20X EvaGreen	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.
	PCR Enzyme Blend	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.
	20 mM dNTP 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.
	10X Core PCR 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 through spilt material. Put on appropriate personal protective equipment.
	50 mM Magnesium Chloride	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.
For emergency responders	: 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".
	20X EvaGreen	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".
	PCR Enzyme Blend	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".
	20 mM dNTP 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".

SECTION 6: Accidental release measures

10X Core PCR Buffer	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".
50 mM Magnesium Chloride	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".
: 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).
20X EvaGreen	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).
PCR Enzyme Blend	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).
20 mM dNTP 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).
10X Core PCR Buffer	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).
50 mM Magnesium Chloride	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).

6.2 Environmental precautions

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : 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.
20X EvaGreen	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.
PCR Enzyme Blend	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.
20 mM dNTP 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.
10X Core PCR 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.
50 mM Magnesium Chloride	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

SECTION 6: Accidental release measures

place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : 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**

Protective measures	: Reference Dye	Put on appropriate personal protective equipment (see Section 8).
	20X EvaGreen	Put on appropriate personal protective equipment (see Section 8).
	PCR Enzyme Blend	Put on appropriate personal protective equipment (see Section 8).
	20 mM dNTP Mix	Put on appropriate personal protective equipment (see Section 8).
	10X Core PCR Buffer	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: 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.
	20X EvaGreen	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.
	PCR Enzyme Blend	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.
	20 mM dNTP Mix (5 mM each dNTP)	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.
	10X Core PCR 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.
	50 mM Magnesium Chloride	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**7.2 Conditions for safe storage, including any incompatibilities**

: 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.
20X EvaGreen	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.
PCR Enzyme Blend	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.
20 mM dNTP 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.
10X Core PCR Buffer	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.
50 mM Magnesium Chloride	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.

7.3 Specific end use(s)**Recommendations**

: Reference Dye	Industrial applications, Professional applications.
20X EvaGreen	Industrial applications, Professional applications.
PCR Enzyme Blend	Industrial applications, Professional applications.
20 mM dNTP Mix	Industrial applications, Professional applications.
10X Core PCR Buffer	Industrial applications, Professional applications.
50 mM Magnesium Chloride	Industrial applications, Professional applications.

SECTION 7: Handling and storage

Industrial sector specific solutions	: Reference Dye	Not applicable.
	20X EvaGreen	Not applicable.
	PCR Enzyme Blend	Not applicable.
	20 mM dNTP Mix	Not applicable.
	10X Core PCR Buffer	Not applicable.
	50 mM Magnesium Chloride	Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
PCR Enzyme Blend Glycerol	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: Mist

Recommended monitoring procedures : 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.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

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.
- 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**

Physical state	:	Reference Dye	Liquid.
		20X EvaGreen	Liquid.
		PCR Enzyme Blend	Liquid.
		20 mM dNTP Mix (5 mM each dNTP)	Liquid.
		10X Core PCR Buffer	Liquid.
		50 mM Magnesium Chloride	Liquid.
Colour	:	Reference Dye	Not available.
		20X EvaGreen	Not available.
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix	Not available.
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	Not available.
Odour	:	Reference Dye	Not available.
		20X EvaGreen	Not available.
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix	Not available.
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	Not available.
Odour threshold	:	Reference Dye	Not available.
		20X EvaGreen	Not available.
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix	Not available.
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	Not available.
pH	:	Reference Dye	8
		20X EvaGreen	Not available.
		PCR Enzyme Blend	8
		20 mM dNTP Mix (5 mM each dNTP)	7.5
		10X Core PCR Buffer	8
		50 mM Magnesium Chloride	Not available.
Melting point/freezing point	:	Reference Dye	0°C
		20X EvaGreen	0°C
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix	0°C
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	0°C

SECTION 9: Physical and chemical properties

Initial boiling point and boiling range	:	Reference Dye	100°C
		20X EvaGreen	100°C
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix	100°C
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	100°C
Flash point	:	Reference Dye	Not available.
		20X EvaGreen	Not available.
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix	Not available.
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	Not available.
Evaporation rate	:	Reference Dye	Not available.
		20X EvaGreen	Not available.
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix	Not available.
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	Not available.
Flammability (solid, gas)	:	Reference Dye	Not applicable.
		20X EvaGreen	Not applicable.
		PCR Enzyme Blend	Not applicable.
		20 mM dNTP Mix	Not applicable.
		10X Core PCR Buffer	Not applicable.
		50 mM Magnesium Chloride	Not applicable.
Upper/lower flammability or explosive limits	:	Reference Dye	Not available.
		20X EvaGreen	Not available.
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix (5 mM each dNTP)	Not available.
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	Not available.
Vapour pressure	:	Reference Dye	Not available.
		20X EvaGreen	Not available.
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix	Not available.
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	Not available.
Vapour density	:	Reference Dye	Not available.
		20X EvaGreen	Not available.
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix	Not available.
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	Not available.
Relative density	:	Reference Dye	Not available.
		20X EvaGreen	1
		PCR Enzyme Blend	Not available.
		20 mM dNTP Mix	1
		10X Core PCR Buffer	Not available.
		50 mM Magnesium Chloride	Not available.

SECTION 9: Physical and chemical properties

Solubility(ies)	: Reference Dye	Easily soluble in the following materials: cold water and hot water.
	20X EvaGreen	Easily soluble in the following materials: cold water and hot water.
	PCR Enzyme Blend	Soluble in the following materials: cold water and hot water.
	20 mM dNTP Mix	Not available.
	10X Core PCR Buffer	Easily soluble in the following materials: cold water and hot water.
	50 mM Magnesium Chloride	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Reference Dye	Not available.
	20X EvaGreen	Not available.
	PCR Enzyme Blend	Not available.
	20 mM dNTP Mix	Not available.
	10X Core PCR Buffer	Not available.
	50 mM Magnesium Chloride	Not available.
Auto-ignition temperature	: Reference Dye	Not available.
	20X EvaGreen	Not available.
	PCR Enzyme Blend	Not available.
	20 mM dNTP Mix	Not available.
	10X Core PCR Buffer	Not available.
	50 mM Magnesium Chloride	Not available.
Decomposition temperature	: Reference Dye	Not available.
	20X EvaGreen	Not available.
	PCR Enzyme Blend	Not available.
	20 mM dNTP Mix	Not available.
	10X Core PCR Buffer	Not available.
	50 mM Magnesium Chloride	Not available.
Viscosity	: Reference Dye	Not available.
	20X EvaGreen	Not available.
	PCR Enzyme Blend	Not available.
	20 mM dNTP Mix	Not available.
	10X Core PCR Buffer	Not available.
	50 mM Magnesium Chloride	Not available.
Explosive properties	: Reference Dye	Not available.
	20X EvaGreen	Not available.
	PCR Enzyme Blend	Not available.
	20 mM dNTP Mix	Not available.
	10X Core PCR Buffer	Not available.
	50 mM Magnesium Chloride	Not available.
Oxidising properties	: Reference Dye	Not available.
	20X EvaGreen	Not available.
	PCR Enzyme Blend	Not available.
	20 mM dNTP Mix	Not available.
	10X Core PCR Buffer	Not available.
	50 mM Magnesium Chloride	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	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. 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. 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	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
10.5 Incompatible materials	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 10: Stability and reactivity

Chloride 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.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Reference Dye 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation
10X Core PCR Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

Reference Dye	Routes of entry anticipated: Oral, Dermal, Inhalation.
20X EvaGreen	Not available.
PCR Enzyme Blend	Routes of entry anticipated: Oral, Dermal, Inhalation.
20 mM dNTP Mix (5 mM each dNTP)	Not available.
10X Core PCR Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
50 mM Magnesium Chloride	Not available.

Potential acute health effects

Inhalation	: Reference Dye	No known significant effects or critical hazards.
	20X EvaGreen	No known significant effects or critical hazards.
	PCR Enzyme Blend	No known significant effects or critical hazards.
	20 mM dNTP Mix	No known significant effects or critical hazards.
	10X Core PCR Buffer	No known significant effects or critical hazards.
	50 mM Magnesium Chloride	No known significant effects or critical hazards.
Ingestion	: Reference Dye	No known significant effects or critical hazards.
	20X EvaGreen	No known significant effects or critical hazards.
	PCR Enzyme Blend	No known significant effects or critical hazards.
	20 mM dNTP Mix	No known significant effects or critical hazards.
	10X Core PCR Buffer	No known significant effects or critical hazards.
	50 mM Magnesium Chloride	No known significant effects or critical hazards.

SECTION 11: Toxicological information

Skin contact	:	Reference Dye	No known significant effects or critical hazards.
		20X EvaGreen	No known significant effects or critical hazards.
		PCR Enzyme Blend	No known significant effects or critical hazards.
		20 mM dNTP Mix	No known significant effects or critical hazards.
		10X Core PCR Buffer	No known significant effects or critical hazards.
		50 mM Magnesium Chloride	No known significant effects or critical hazards.
Eye contact	:	Reference Dye	No known significant effects or critical hazards.
		20X EvaGreen	No known significant effects or critical hazards.
		PCR Enzyme Blend	No known significant effects or critical hazards.
		20 mM dNTP Mix	No known significant effects or critical hazards.
		10X Core PCR Buffer	No known significant effects or critical hazards.
		50 mM Magnesium Chloride	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	:	Reference Dye	No specific data.
		20X EvaGreen	No specific data.
		PCR Enzyme Blend	No specific data.
		20 mM dNTP Mix	No specific data.
		10X Core PCR Buffer	No specific data.
		50 mM Magnesium Chloride	No specific data.
Ingestion	:	Reference Dye	No specific data.
		20X EvaGreen	No specific data.
		PCR Enzyme Blend	No specific data.
		20 mM dNTP Mix	No specific data.
		10X Core PCR Buffer	No specific data.
		50 mM Magnesium Chloride	No specific data.
Skin contact	:	Reference Dye	No specific data.
		20X EvaGreen	No specific data.
		PCR Enzyme Blend	No specific data.
		20 mM dNTP Mix	No specific data.
		10X Core PCR Buffer	No specific data.
		50 mM Magnesium Chloride	No specific data.
Eye contact	:	Reference Dye	No specific data.
		20X EvaGreen	No specific data.
		PCR Enzyme Blend	No specific data.
		20 mM dNTP Mix	No specific data.
		10X Core PCR Buffer	No specific data.
		50 mM Magnesium Chloride	No specific data.

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

SECTION 11: Toxicological information

General	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: Reference Dye 20X EvaGreen PCR Enzyme Blend 20 mM dNTP Mix 10X Core PCR Buffer 50 mM Magnesium Chloride	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

SECTION 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_{oc})** : Not available.**Mobility** : Not available.

SECTION 12: Ecological information

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.

SECTION 14: Transport information

Regulatory 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.
	20X EvaGreen	Not applicable.
	PCR Enzyme Blend	Not applicable.
	20 mM dNTP Mix	Not applicable.
	10X Core PCR Buffer	Not applicable.
	50 mM Magnesium Chloride	Not applicable.

Other EU regulations

- Europe inventory** : All components are listed or exempted.
Seveso Directive

Date of issue/Date of revision : 30/03/2016

SECTION 15: Regulatory information

This product is not controlled under the Seveso Directive.

National regulations

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 Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia	: All components are listed or exempted.
Canada	: Not determined.
China	: All components are listed or exempted.
Japan	: All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.

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 :

Reference Dye	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
10X Core PCR Buffer	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Date of issue/Date of revision : 30/03/2016

22/23

SECTION 16: Other information

Full text of classifications [CLP/GHS]	Reference Dye 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
	10X Core PCR Buffer 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
Date of issue/ Date of revision	: 30/03/2016	
Date of previous issue	: No previous validation.	
Version	: 1	

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