

SAFETY DATA SHEET



Short Read Amplification kit

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

1.1 Product identifier

Product name	: Short Read Amplification kit
Part no. (chemical kit)	: SR-0010.096
Part no.	: Taq DNA Polymerase I-0231 SR GS-labeling PCR Mix I-0798 SR Universal PCR Mix I-0794

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

Material uses	: Analytical reagent. For Research Use Only. Not for use in diagnostic procedures. 2.612 ml Taq DNA Polymerase 0.02 ml SR GS-labeling PCR Mix 3 x 0.416 ml SR Universal PCR Mix 3 x 0.448 ml
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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	: Taq DNA Polymerase Mixture SR GS-labeling PCR Mix Mixture SR Universal PCR Mix Mixture
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Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Taq DNA Polymerase
H412 LONG-TERM (CHRONIC) AQUATIC HAZARD

Ingredients of unknown toxicity	: Taq DNA Polymerase SR Universal PCR Mix	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30% Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%
Ingredients of unknown ecotoxicity	: SR Universal PCR Mix	Contains 1.3% of components with unknown hazards to the aquatic environment

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.

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SECTION 2: Hazards identification

2.2 Label elements

Signal word	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No signal word. No signal word. No signal word.
Hazard statements	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	H412 - Harmful to aquatic life with long lasting effects. No known significant effects or critical hazards. No known significant effects or critical hazards.
<u>Precautionary statements</u>		
Prevention	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	P273 - Avoid release to the environment. Not applicable. Not applicable.
Response	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	Not applicable. Not applicable. Not applicable.
Storage	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	Not applicable. Not applicable. Not applicable.
Disposal	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. Not applicable. Not applicable.
Hazardous ingredients	: Taq DNA Polymerase	Not applicable.
Supplemental label elements	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	Not applicable. Not applicable. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	Not applicable. Not applicable. Not applicable.
<u>Special packaging requirements</u>		
Tactile warning of danger	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	Not applicable. Not applicable. Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB. This mixture does not contain any substances that are assessed to be a PBT or a vPvB. This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	None known. None known. None known.

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SECTION 3: Composition/information on ingredients

3.1 Substances :  Faq DNA Polymerase Mixture
SR GS-labeling PCR Mix Mixture
SR Universal PCR Mix Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
 Faq DNA Polymerase				
Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥25 - ≤50	Not classified.	[2]
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	CAS: 9036-19-5	<1	Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above.	[1]

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

Eye contact	:  Faq DNA Polymerase	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
	SR GS-labeling PCR 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.
	SR Universal PCR 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.
Inhalation	:  Faq DNA Polymerase	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	SR GS-labeling PCR Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	SR Universal PCR Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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SECTION 4: First aid measures

Skin contact	: Taq DNA Polymerase	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	SR GS-labeling PCR Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SR Universal PCR Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Taq DNA Polymerase	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	SR GS-labeling PCR 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.
	SR Universal PCR 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.
Protection of first-aiders	: Taq DNA Polymerase	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	SR GS-labeling PCR Mix	No action shall be taken involving any personal risk or without suitable training.
	SR Universal PCR Mix	No 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	Taq DNA Polymerase	No known significant effects or critical hazards.
	SR GS-labeling PCR Mix	No known significant effects or critical hazards.
	SR Universal PCR Mix	No known significant effects or critical hazards.
Inhalation	Taq DNA Polymerase	No known significant effects or critical hazards.
	SR GS-labeling PCR Mix	No known significant effects or critical hazards.
	SR Universal PCR Mix	No known significant effects or critical hazards.
Skin contact	Taq DNA Polymerase	No known significant effects or critical hazards.
	SR GS-labeling PCR Mix	No known significant effects or critical hazards.
	SR Universal PCR Mix	No known significant effects or critical hazards.
Ingestion	Taq DNA Polymerase	No known significant effects or critical hazards.
	SR GS-labeling PCR Mix	No known significant effects or critical hazards.
	SR Universal PCR Mix	No known significant effects or critical hazards.

Over-exposure signs/symptoms

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SECTION 4: First aid measures

Eye contact	: Taq DNA Polymerase	No specific data.
	SR GS-labeling PCR Mix	No specific data.
	SR Universal PCR Mix	No specific data.
Inhalation	: Taq DNA Polymerase	No specific data.
	SR GS-labeling PCR Mix	No specific data.
	SR Universal PCR Mix	No specific data.
Skin contact	: Taq DNA Polymerase	No specific data.
	SR GS-labeling PCR Mix	No specific data.
	SR Universal PCR Mix	No specific data.
Ingestion	: Taq DNA Polymerase	No specific data.
	SR GS-labeling PCR Mix	No specific data.
	SR Universal PCR Mix	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Taq DNA Polymerase	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SR GS-labeling PCR Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SR Universal PCR Mix	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: Taq DNA Polymerase	No specific treatment.
	SR GS-labeling PCR Mix	No specific treatment.
	SR Universal PCR Mix	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Taq DNA Polymerase	Use an extinguishing agent suitable for the surrounding fire.
	SR GS-labeling PCR Mix	Use an extinguishing agent suitable for the surrounding fire.
	SR Universal PCR Mix	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Taq DNA Polymerase	None known.
	SR GS-labeling PCR Mix	None known.
	SR Universal PCR Mix	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Taq DNA Polymerase	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	SR GS-labeling PCR Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	SR Universal PCR Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: Taq DNA Polymerase	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	SR GS-labeling PCR Mix	No specific data.
	SR Universal PCR Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides

5.3 Advice for firefighters

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SECTION 5: Firefighting measures

Special precautions for fire-fighters	: Taq DNA Polymerase	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.
	SR GS-labeling PCR 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.
	SR Universal PCR 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.
Special protective equipment for fire-fighters	: Taq DNA Polymerase	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.
	SR GS-labeling PCR 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.
	SR Universal PCR 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

For non-emergency personnel	: Taq DNA Polymerase	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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	SR GS-labeling PCR 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.
	SR Universal PCR 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.
For emergency responders	: Taq DNA Polymerase	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".
	SR GS-labeling PCR 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".
	SR Universal PCR 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

6.2 Environmental precautions	: Taq DNA Polymerase	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). Water polluting material. May be harmful to the environment if released in large quantities.
	SR GS-labeling PCR 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).
	SR Universal PCR 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).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	: Taq DNA Polymerase	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.
	SR GS-labeling PCR 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.
	SR Universal PCR 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.

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.
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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: Taq DNA Polymerase	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	SR GS-labeling PCR Mix	Put on appropriate personal protective equipment (see Section 8).
	SR Universal PCR Mix	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Taq DNA Polymerase	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.
	SR GS-labeling PCR 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

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SECTION 7: Handling and storage

SR Universal PCR Mix

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

7.2 Conditions for safe storage, including any incompatibilities

Storage

: Taq DNA Polymerase

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.

SR GS-labeling PCR 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. See Section 10 for incompatible materials before handling or use.

SR Universal PCR 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. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations

: Taq DNA Polymerase
SR GS-labeling PCR Mix
SR Universal PCR Mix

Industrial applications, Professional applications.
Industrial applications, Professional applications.
Industrial applications, Professional applications.

Industrial sector specific solutions

: Taq DNA Polymerase
SR GS-labeling PCR Mix
SR Universal PCR Mix

Not applicable.
Not applicable.
Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Taq DNA Polymerase Glycerol	EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m ³ 8 hours. Form: Mist

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SECTION 8: Exposure controls/personal protection

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Taq DNA Polymerase	Liquid. [Clear. / solution]
	SR GS-labeling PCR Mix	Liquid.
	SR Universal PCR Mix	Liquid.
Colour	Taq DNA Polymerase	Colourless.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Odour	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Odour threshold	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
pH	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Melting point/freezing point	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Initial boiling point and boiling range	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Flash point	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Evaporation rate	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Flammability (solid, gas)	Taq DNA Polymerase	Not applicable.
	SR GS-labeling PCR Mix	Not applicable.
	SR Universal PCR Mix	Not applicable.
Upper/lower flammability or explosive limits	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Vapour pressure	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Vapour density	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Relative density	Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.

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SECTION 9: Physical and chemical properties

Solubility(ies)	: Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Easily soluble in the following materials: cold water and hot water.
	SR Universal PCR Mix	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Auto-ignition temperature	: Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Decomposition temperature	: Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Viscosity	: Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Explosive properties	: Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.
Oxidising properties	: Taq DNA Polymerase	Not available.
	SR GS-labeling PCR Mix	Not available.
	SR Universal PCR Mix	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Taq DNA Polymerase	No specific test data related to reactivity available for this product or its ingredients.
	SR GS-labeling PCR Mix	No specific test data related to reactivity available for this product or its ingredients.
	SR Universal PCR Mix	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Taq DNA Polymerase	The product is stable.
	SR GS-labeling PCR Mix	The product is stable.
	SR Universal PCR Mix	The product is stable.
10.3 Possibility of hazardous reactions	: Taq DNA Polymerase	Under normal conditions of storage and use, hazardous reactions will not occur.
	SR GS-labeling PCR Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	SR Universal PCR Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Taq DNA Polymerase	No specific data.
	SR GS-labeling PCR Mix	No specific data.
	SR Universal PCR Mix	No specific data.

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SECTION 10: Stability and reactivity

10.5 Incompatible materials	Taq DNA Polymerase	May react or be incompatible with oxidising materials.
	SR GS-labeling PCR Mix	May react or be incompatible with oxidising materials.
	SR Universal PCR Mix	May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	Taq DNA Polymerase	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SR GS-labeling PCR Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SR Universal PCR Mix	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

Product/ingredient name	Result	Species	Dose	Exposure
Taq DNA Polymerase Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Taq DNA Polymerase Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	2800	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Taq DNA Polymerase Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-

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.

Information on likely routes of exposure

Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.
SR GS-labeling PCR Mix Not available.
SR Universal PCR Mix Not available.

Potential acute health effects

Inhalation : Taq DNA Polymerase No known significant effects or critical hazards.
SR GS-labeling PCR Mix No known significant effects or critical hazards.
SR Universal PCR Mix No known significant effects or critical hazards.

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SECTION 11: Toxicological information

Ingestion	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Eye contact	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No specific data. No specific data. No specific data.
Ingestion	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No specific data. No specific data. No specific data.
Skin contact	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No specific data. No specific data. No specific data.
Eye contact	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No specific data. No specific data. 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

General	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: Taq DNA Polymerase SR GS-labeling PCR Mix SR Universal PCR Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

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SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Taq DNA Polymerase Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Acute EC50 210 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute LC50 10800 µg/l Marine water	Crustaceans - Pandalus montagui - Adult	48 hours
	Acute LC50 8600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 7200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Taq DNA Polymerase Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	3.77	78.67	low

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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 : The classification of the product may meet the criteria for a hazardous waste.

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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

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SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

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 IMO instruments : 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](#)

Label	: Taq DNA Polymerase	Not applicable.
	SR GS-labeling PCR Mix	Not applicable.
	SR Universal PCR Mix	Not applicable.

[Other EU regulations](#)

[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](#)

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SECTION 15: Regulatory information

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.
Canada	: Not determined.
China	: Not determined.
Europe	: Not determined.
Japan	: Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: 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] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Taq DNA Polymerase Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

Taq DNA Polymerase H319 H400 H410 H412	Causes serious eye irritation. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.
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Full text of classifications [CLP/GHS]

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SECTION 16: Other information

 Taq DNA Polymerase Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 3 Eye Irrit. 2	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
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Date of issue/ Date of revision : 02/03/2020

Date of previous issue : 30/08/2017

Version : 2

Notice to reader

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