

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

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

### 1.1 Product identifier

Product name

**Reaction Buffer; part of 'Thermo Sequenase™ DNA Polymerase (with TAP) kit, 10000 units'**

Catalogue Number

E79000Z



Component Number

93-79802

Product description

Not available.

Product type

Liquid.

Other means of identification

Not available.

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

Analytical chemistry.

Laboratory chemicals

Scientific research and development

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

Supplier

Cytiva  
Amersham Place  
Little Chalfont  
Buckinghamshire  
HP7 9NA United Kingdom  
+44 1494 508000

Hours of operation

08.30 - 17.00

**Person who prepared the SDS :** sds\_author@cytiva.com

### 1.4 Emergency telephone number

**Switzerland**

Pall (Schweiz) GmbH  
Schaeferweg 16  
4057 Basel  
Switzerland  
t: 0848 8028 10

Call INFOTRAC 24 Hour number:  
001-352-323-3500 (Call Collect).

### National advisory body/Poison Centre

**Switzerland**

Vergiftungsnotruf  
Tel: 145

Aus dem Ausland oder bei technischen Problemen: +41 44 251 51 51

<https://www.toxinfo.ch/notruf-145>

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** Mixture

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

 Aquatic Chronic 2, H411  
ED ENV 1, EUH430

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.



**Ingredients of unknown toxicity** 5 percent of the mixture consists of component(s) of unknown acute oral toxicity  
 6.9 percent of the mixture consists of component(s) of unknown acute dermal toxicity  
 6.9 percent of the mixture consists of component(s) of unknown acute inhalation toxicity

**Ingredients of unknown ecotoxicity** Not applicable.

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

### Hazard pictograms



**Signal word**  Danger

**Hazard statements**  Toxic to aquatic life with long lasting effects.  
 May cause endocrine disruption in the environment.

### Precautionary statements

**General** Not applicable.

**Prevention**  Obtain special instructions before use. Avoid release to the environment.

**Response**  Collect spillage.

**Storage**  Store locked up.

**Disposal** Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

### Special packaging requirements

**Containers to be fitted with child-resistant fastenings** Not applicable.

**Tactile warning of danger** Not applicable.

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

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

**Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006.**  Contains nonylphenol, branched and linear, ethoxylated (with average molecular weight  $\leq$  1 540 g/mol). May cause endocrine disruption.

**Other hazards which do not result in classification**  None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Mixture

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
Nonylphenol, branched and linear, ethoxylated (with average molecular weight $\leq$ 1 540 g/mol)	EC: 500-024-6 CAS: 9016-45-9 Index: 604-100-00-0	0.55	Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 ED ENV 1, EUH430  See Section 16 for the full text of the H statements declared above.	[1] [2]

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type



[1] Substance classified with a physical, health or environmental hazard

[2] Substance of equivalent concern - Endocrine disrupting properties

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

<b>Eye contact</b>	In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if irritation occurs.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms appear.
<b>Skin contact</b>	Wash with soap and water. Get medical attention if symptoms appear.
<b>Ingestion</b>	Do not ingest. Get medical attention if symptoms appear.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training.

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

#### Over-exposure signs/symptoms

<b>Eye contact</b>	No specific data.
<b>Inhalation</b>	No specific data.
<b>Skin contact</b>	No specific data.
<b>Ingestion</b>	No specific data.

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

<b>Notes to physician</b>	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.
<b>Specific treatments</b>	No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Use an extinguishing agent suitable for the surrounding fire.
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<b>Unsuitable extinguishing media</b>	None known.
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### 5.2 Special hazards arising from the substance or mixture

<b>Hazards from the substance or mixture</b>	In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. This material may cause endocrine disruption in the environment. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
<b>Hazardous combustion products</b>	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides

### 5.3 Advice for firefighters

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

## SECTION 6: Accidental release measures

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

<b>For non-emergency personnel</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

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. Collect spillage.
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### 6.3 Methods and material for containment and cleaning up

<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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<b>Large spill</b>	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
<b>6.4 Reference to other sections</b>	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

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

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

<b>Do not store above the following temperature:</b>	-20°C (-4°F)
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. Store locked up. 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.	
<b>Do not store above the following temperature:</b>	
Do not store above the following temperature:	
Do not store above the following temperature:	

#### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E2	200	500

### 7.3 Specific end use(s)

<b>Recommendations</b>	Analytical chemistry. Liquid chromatography.. Scientific research and development.
<b>Industrial sector specific solutions</b>	Not available.

## SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario (s).

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

#### Biological exposure indices

No exposure indices known.

<b>Recommended monitoring procedures</b>	Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
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#### DNELs/DMELs

Not available.

#### PNECs

Not available.

### 8.2 Exposure controls

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

<b>Hygiene measures</b>	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Eye/face protection</b>	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
<b>Skin protection</b>	
<b>Hand protection</b>	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.
<b>Body protection</b>	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.
<b>Other skin protection</b>	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.
<b>Respiratory protection</b>	A respirator is not needed under normal and intended conditions of product use.
<b>Environmental exposure controls</b>	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**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

**9.1 Information on basic physical and chemical properties****Appearance**

<b>Physical state</b>	Liquid.
<b>Colour</b>	Colourless.
<b>Odour</b>	Odourless.
<b>Odour threshold</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Boiling point or initial boiling point and boiling range</b>	Not available.
<b>Flammability</b>	Not available.
<b>Lower and upper explosion limit</b>	Not available.
<b>Flash point</b>	Not applicable.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>pH</b>	Not available.
<b>Viscosity</b>	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): Not available.

**Solubility**

<b>Media</b>	<b>Result</b>
cold water	Easily soluble
hot water	Easily soluble

**Solubility in water** Not available.

**Partition coefficient: n-octanol/water** Not applicable.

**Vapour pressure** Not available.

<b>Ingredient name</b>	<b>Vapour Pressure at 20°C</b>			<b>Vapour pressure at 50°C</b>		
	<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>	<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>
water	17.5	2.3				

**Relative density** Not available.

**Relative vapour density** Not available.

**Particle characteristics**

**Median particle size** Not applicable.

## 9.2 Other information

### 9.2.1 Information with regard to physical hazard classes

<b>Burning time</b>	Not applicable.
<b>Burning rate</b>	Not applicable.
<b>Explosive properties</b>	Not considered to be a product presenting a risk of explosion.
<b>Oxidising properties</b>	Not available.

### 9.2.2 Other safety characteristics

<b>Miscible with water</b>	Yes.
<b>Evaporation rate</b>	Not available.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	No specific data.
<b>10.5 Incompatible materials</b>	No specific data.
<b>10.6 Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Not available.

**Conclusion/Summary [Product]** Not available.

#### Acute toxicity estimates

N/A

#### Skin corrosion/irritation

**Product/ingredient name**

Nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)

**Result**

**Human - Skin - Mild irritant**

Duration of treatment/exposure: 72 hours

Amount/concentration applied: 15 mg/l

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 mg

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 mg

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 mg

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 mg

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 mg

**Conclusion/Summary [Product]** Not available.

#### Serious eye damage/eye irritation

**Product/ingredient name**

**Result**



**nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)**

**Guinea pig - Eyes - Severe irritant**  
Amount/concentration applied: 20 mg

**Mouse - Eyes - Severe irritant**  
Amount/concentration applied: 20 mg

**Rabbit - Eyes - Severe irritant**  
Amount/concentration applied: 20 mg

**Rabbit - Eyes - Severe irritant**  
Amount/concentration applied: 5 mg

**Rabbit - Eyes - Severe irritant**  
Amount/concentration applied: 5 mg

**Rabbit - Eyes - Severe irritant**  
Amount/concentration applied: 100 mg

**Rabbit - Eyes - Severe irritant**  
Amount/concentration applied: 5 mg

**Rabbit - Eyes - Severe irritant**  
Amount/concentration applied: 15 mg

**Conclusion/Summary [Product]** Not available.

#### **Respiratory corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Not available.

#### **Respiratory or skin sensitization**

Not available.

#### **Skin**

**Conclusion/Summary [Product]** Not available.

#### **Respiratory**

**Conclusion/Summary [Product]** Not available.

#### **Germ cell mutagenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

#### **Carcinogenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

#### **Reproductive toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

#### **Specific target organ toxicity (single exposure)**

Not available.

#### **Specific target organ toxicity (repeated exposure)**

Not available.

#### **Aspiration hazard**

Not available.

**Information on likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Inhalation.

#### **Potential acute health effects**

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

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



**Skin contact** No known significant effects or critical hazards.

**Eye contact** No known significant effects or critical hazards.

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

**Inhalation** No specific data.

**Ingestion** No specific data.

**Skin contact** No specific data.

**Eye contact** 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**

Not available.

**Conclusion/Summary [Product]** Not available.

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

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

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

**Reproductive toxicity** No known significant effects or critical hazards.

## 11.2 Information on other hazards

### 11.2.1 Endocrine disrupting properties

Not available.

**Conclusion/Summary [Product]** The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product/ingredient name

Nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)

#### Result

##### **Acute - LC50 - Fresh water**

Fish - Bluegill - *Lepomis macrochirus*

Weight: 1 g

1300 µg/l [96 hours]

Effect: Mortality

##### **Chronic - NOEC - Fresh water**

Fish - Medaka, high-eyes - *Oryzias latipes* - Fry

Age: 1 days

35 µg/l [100 days]

Effect: Morphology

##### **Acute - LC50 - Fresh water**

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: 24 hours

0.148 mg/l [48 hours]

Effect: Mortality

##### **Acute - EC50 - Fresh water**

Algae - Green algae - *Raphidocelis subcapitata*

12 mg/l [96 hours]

Effect: Population

##### **Chronic - NOEC - Fresh water**

Algae - Green algae - *Raphidocelis subcapitata*

8 mg/l [96 hours]

Effect: Population

**Conclusion/Summary [Product]** Not available.



**12.2 Persistence and degradability**

Not available.

**Conclusion/Summary [Product]** Not available.**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil****Soil/water partition coefficient**

Not available.

**Results of PMT and vPvM assessment**

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
Phenylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	N/A	N/A	N/A	Yes	N/A	N/A	N/A
<b>Mobility</b>	Not available.						
<b>Conclusion/Summary</b>	The product does not meet the criteria to be considered as a PMT or vPvM.						

**12.5 Results of PBT and vPvB assessment****Regulation (EC) No. 1907/2006 [REACH]**

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Phenylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	No	N/A	N/A	No	N/A	N/A	N/A

**Regulation (EC) No. 1272/2008 [CLP]**

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Phenylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	N/A	N/A	N/A	Yes	N/A	N/A	N/A

**Conclusion/Summary** The product does not meet the criteria to be considered as a PBT or vPvB.**Regulation (EC) No. 1272/2008 [CLP]****12.6 Endocrine disrupting properties**

Not applicable.

**Conclusion/Summary [Product]** May cause endocrine disruption in the environment.**12.7 Other adverse effects**

No known significant effects or critical hazards.

**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**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.



## SECTION 14: Transport information

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

**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

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Endocrine disrupting properties for environment	4-nonylphenol, branched and linear, ethoxylated substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof	Listed	43	7/3/2017

#### Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Endocrine disrupting properties for environment	4-nonylphenol, branched and linear, ethoxylated substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof	Recommended	6th recommendation	7/1/2015

#### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
Reaction Buffer; part of 'Thermo Sequenase DNA Polymerase (with TAP) kit, 10000 units'	≥90	3
nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	<1	46a

**Labelling** Not applicable.

#### Other EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** Not listed



**Explosive precursors**  Not applicable.

#### Ozone depleting substances (EU 2024/590)

Not listed.

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

Not listed.

#### Persistent Organic Pollutants

Not listed.

#### Seveso Directive

This product is controlled under the Seveso Directive.

#### National regulations

**VOC content** Exempt.

#### International regulations

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

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

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

Not listed.

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

Not listed.

#### Inventory list

**United States** All components are active or exempted.

**Canada inventory** All components are listed or exempted.

**China** All components are listed or exempted.

**Japan** Japan inventory (CSCL): All components are listed or exempted.

Japan inventory (ISHL): Not determined.

**15.2 Chemical safety assessment** This product contains substances for which Chemical Safety Assessments are still 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

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

Classification	Justification
Aquatic Chronic 2, H411 ED ENV 1, EUH430	Calculation method Calculation method

**Full text of abbreviated H statements**  H319 Causes serious eye irritation.  
H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

EUH430 May cause endocrine disruption in the environment.

**Full text of classifications [CLP/ GHS]**  Aquatic Acute 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1  
Aquatic Chronic 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1  
Aquatic Chronic 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2  
ED ENV 1 ENDOCRINE DISRUPTOR FOR THE ENVIRONMENT - Category 1  
Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

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**Notice to reader**

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



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