

SAFETY DATA SHEET



Taq2000 DNA Polymerase, Part Number 600196

Section 1. Identification

1.1 Product identifier

Product name : Taq2000 DNA Polymerase, Part Number 600196
Part no. (chemical kit) : 600196
Part no. : Taq2000 DNA Polymerase 600196-51
 10X Taq Polymerase Buffer 600131-82
Validation date : 5/4/2022

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

Material uses : Analytical reagent.
 Taq2000 DNA Polymerase 0.1 ml (500U 5U/μl)
 10X Taq Polymerase Buffer 1 ml

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051, USA
 800-227-9770

1.4 Emergency telephone number

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

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : Taq2000 DNA Polymerase This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 10X Taq Polymerase Buffer While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

Taq2000 DNA Polymerase
 H320 EYE IRRITATION - Category 2B
 H412 AQUATIC HAZARD (LONG-TERM) - Category 3

2.2 GHS label elements

Signal word : Taq2000 DNA Polymerase Warning
 10X Taq Polymerase Buffer No signal word.

Hazard statements : Taq2000 DNA Polymerase H320 - Causes eye irritation.
 H412 - Harmful to aquatic life with long lasting effects.
 10X Taq Polymerase Buffer No known significant effects or critical hazards.

Precautionary statements

Prevention : Taq2000 DNA Polymerase P273 - Avoid release to the environment.
 10X Taq Polymerase Buffer Not applicable.

Section 2. Hazards identification

Response	: Taq2000 DNA Polymerase	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
	10X Taq Polymerase Buffer	Not applicable.
Storage	: Taq2000 DNA Polymerase	Not applicable.
	10X Taq Polymerase Buffer	Not applicable.
Disposal	: Taq2000 DNA Polymerase	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	10X Taq Polymerase Buffer	Not applicable.
Supplemental label elements	: Taq2000 DNA Polymerase	None known.
	10X Taq Polymerase Buffer	None known.
2.3 Other hazards		
Hazards not otherwise classified	: Taq2000 DNA Polymerase	None known.
	10X Taq Polymerase Buffer	None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Taq2000 DNA Polymerase	Mixture
	10X Taq Polymerase Buffer	Mixture

Ingredient name	%	CAS number
Taq2000 DNA Polymerase		
Glycerol	≥50 - ≤75	56-81-5
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	<1	9036-19-5
10X Taq Polymerase Buffer		
Potassium chloride	≤5	7447-40-7

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

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

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact	: Taq2000 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. If irritation persists, get medical attention.
	10X Taq Polymerase 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.
Inhalation	: Taq2000 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

Section 4. First aid measures

	10X Taq Polymerase Buffer	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. 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.
Skin contact	: Taq2000 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.
	10X Taq Polymerase Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Taq2000 DNA Polymerase	Wash out mouth with water. Remove dentures if any. 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.
	10X Taq Polymerase Buffer	Wash out mouth with water. 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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Causes eye irritation. No known significant effects or critical hazards.
Inhalation	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Taq2000 DNA Polymerase	Adverse symptoms may include the following: irritation watering redness
	10X Taq Polymerase Buffer	No specific data.

Section 4. First aid measures

Inhalation	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No specific data. No specific data.
Skin contact	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No specific data. No specific data.
Ingestion	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No specific data. No specific data.

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

Notes to physician	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No specific treatment. No specific treatment.
Protection of first-aiders	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	None known. None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	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. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides

Section 5. Fire-fighting measures

5.3 Advice for firefighters

Special protective actions for fire-fighters	: Taq2000 DNA Polymerase 10X Taq Polymerase 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. 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	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Taq2000 DNA Polymerase 10X Taq Polymerase 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	If specialized 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". If specialized 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	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Taq2000 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.

10X Taq Polymerase 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.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures : Taq2000 DNA Polymerase

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor 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.

10X Taq Polymerase Buffer

Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Taq2000 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. 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 Taq Polymerase Buffer

7.2 Conditions for safe storage, including any incompatibilities : Taq2000 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

10X Taq Polymerase 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

Section 7. Handling and storage

and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Not available. Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Taq2000 DNA Polymerase Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust None.
10X Taq Polymerase Buffer Potassium chloride	None.

8.2 Exposure controls

Appropriate engineering controls	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Section 8. Exposure controls/personal 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.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

- Physical state** : Taq2000 DNA Polymerase Liquid.
10X Taq Polymerase Buffer Liquid.
- Color** : Taq2000 DNA Polymerase Not available.
10X Taq Polymerase Buffer Not available.
- Odor** : Taq2000 DNA Polymerase Not available.
10X Taq Polymerase Buffer Not available.
- Odor threshold** : Taq2000 DNA Polymerase Not available.
10X Taq Polymerase Buffer Not available.
- pH** : Taq2000 DNA Polymerase 8
10X Taq Polymerase Buffer 8.8
- Melting point/freezing point** : Taq2000 DNA Polymerase Not available.
10X Taq Polymerase Buffer Not available.
- Boiling point, initial boiling point, and boiling range** : Taq2000 DNA Polymerase Not available.
10X Taq Polymerase Buffer Not available.

Flash point

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
Taq2000 DNA Polymerase						
Edetic acid	>100	>212	DIN 51758			
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	>109.85	>229.7				

- Evaporation rate** : Taq2000 DNA Polymerase Not available.
10X Taq Polymerase Buffer Not available.
- Flammability** : Taq2000 DNA Polymerase Not applicable.
10X Taq Polymerase Buffer Not applicable.
- Lower and upper explosion limit/flammability limit** : Taq2000 DNA Polymerase Not available.
10X Taq Polymerase Buffer Not available.
- Vapor pressure** :

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Taq2000 DNA Polymerase						
water	23.8	3.2		92.258	12.3	
Sorbitan monolaurate, ethoxylated	<1	<0.13				
10X Taq Polymerase Buffer						
water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	

Relative vapor density	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Not available. Not available.																
Relative density	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Not available. Not available.																
Solubility	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.																
Partition coefficient: n-octanol/water	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Not applicable. Not applicable.																
Auto-ignition temperature	: <table border="1"> <thead> <tr> <th>Ingredient name</th> <th>°C</th> <th>°F</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td>Taq2000 DNA Polymerase</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Glycerol</td> <td>370</td> <td>698</td> <td></td> </tr> <tr> <td>Edetic acid</td> <td>>400</td> <td>>752</td> <td>VDI 2263</td> </tr> </tbody> </table>	Ingredient name	°C	°F	Method	Taq2000 DNA Polymerase				Glycerol	370	698		Edetic acid	>400	>752	VDI 2263	
Ingredient name	°C	°F	Method															
Taq2000 DNA Polymerase																		
Glycerol	370	698																
Edetic acid	>400	>752	VDI 2263															
Decomposition temperature	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Not available. Not available.																
Viscosity	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Not available. Not available.																
Particle characteristics																		
Median particle size	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Not applicable. Not applicable.																

Section 10. Stability and reactivity

10.1 Reactivity	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	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	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

10.4 Conditions to avoid	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No specific data. No specific data.
10.5 Incompatible materials	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Taq2000 DNA Polymerase				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-
10X Taq Polymerase Buffer				
Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Taq2000 DNA Polymerase					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-
10X Taq Polymerase Buffer					
Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Section 11. Toxicological information

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation. Not available.
<u>Potential acute health effects</u>		
Eye contact	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Causes eye irritation. No known significant effects or critical hazards.
Inhalation	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	Adverse symptoms may include the following: irritation watering redness No specific data.
Inhalation	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No specific data. No specific data.
Skin contact	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No specific data. No specific data.
Ingestion	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No specific data. No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Taq2000 DNA Polymerase 10X Taq Polymerase Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.

Section 11. Toxicological information

Reproductive toxicity : Taq2000 DNA Polymerase
10X Taq Polymerase Buffer

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

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Taq2000 DNA Polymerase Glycerol Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	12600 2800	N/A N/A	N/A N/A	N/A N/A	N/A N/A
10X Taq Polymerase Buffer 10X Taq Polymerase Buffer Potassium chloride	70270.3 2600	N/A N/A	N/A N/A	N/A N/A	N/A N/A

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Taq2000 DNA Polymerase Glycerol Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 210 µg/l Fresh water	Algae - Selenastrum sp.	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
10X Taq Polymerase Buffer Potassium chloride	Acute EC50 1337000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 83000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 9.68 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
	Acute LC50 509.65 mg/l Fresh water	Fish - Danio rerio	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Taq2000 DNA Polymerase Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
10X Taq Polymerase Buffer Potassium chloride	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Taq2000 DNA Polymerase			
Glycerol	-1.76	-	low
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	3.77	78.67	low
10X Taq Polymerase Buffer			
Potassium chloride	-0.46	-	low

12.4 Mobility in soil

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

12.5 Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

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

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

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

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

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

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.

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

U.S. Federal regulations : **TSCA 8(a) PAIR:** Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 311: Edetic acid

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

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Taq2000 DNA Polymerase EYE IRRITATION - Category 2B
 10X Taq Polymerase Buffer Not applicable.

Composition/information on ingredients

Name	%	Classification
Taq2000 DNA Polymerase		
Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
10X Taq Polymerase Buffer		
Potassium chloride	≤5	EYE IRRITATION - Category 2B

State regulations

Massachusetts : The following components are listed: GLYCERINE MIST

New York : None of the components are listed.

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

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

California Prop. 65

Section 15. Regulatory information

This product does not require a Safe Harbor warning under California Prop. 65.

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

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

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
Taq2000 DNA Polymerase EYE IRRITATION - Category 2B AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method Calculation method

History

Date of issue	: 05/04/2022
Date of previous issue	: 08/14/2019
Version	: 6

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

Section 16. Other information

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

UN = United Nations

✔ Indicates information that has changed from previously issued version.

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