

Material Safety Data Sheet



Taq DNA Polymerase and 10X reaction buffer

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	Taq DNA polymerase (DNA-free Taq DNA polymerase)
COMPANY IDENTIFICATION:	Taq DNA polymerase 10X reaction buffer Nature Technology Corporation 4701 Innovation Drive Lincoln, NE 68521
FOR INFORMATION CALL:	402-472-6530
EMERGENCY NUMBER:	402-472-6530

2. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Name

Taq DNA polymerase

<u>Component</u>	<u>%</u>	<u>CAS #</u>
1. Taq DNA Polymerase	< 1%	NA
2. Glycerol	50%	56-81-5
3. Tris-HCl	< 1%	1185-53-1
4. NaCl	< 1%	7647-14-5
5. Dithiothreitol	< 1%	3483-12-3
6. EDTA	< 1%	6381-92-6

Taq DNA polymerase 10X reaction buffer

<u>Component</u>	<u>%</u>	<u>CAS #</u>
1. Tris-HCl	< 1%	1185-53-1
2. KCl	< 1%	7447-40-7
3. MgSO ₄	< 1%	7487-88-9
4. (NH ₄) ₂ SO ₄	< 1%	7783-20-2
5. Triton X-100	1%	9002-93-1

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Caution: Avoid contact and inhalation

HMIS RATING:

HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING:

HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

Threshold Limit Value: None Known or Reported

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Signs and Symptoms of Exposure:

1. Acute Overexposure: May cause skin, eye or respiratory irritation upon contact
2. Chronic Overexposure: Allergic reactions may develop in certain sensitive individuals

Medical Conditions Generally Aggravated by Exposure: Allergy-prone and asthmatic individuals should be particularly cautious with enzymes and other materials of biologic origin

Chemicals Listed as Carcinogen or Potential Carcinogen: No

National Toxicology Program: No

I.A.R.C. Monographs: No

OSHA: No

OSHA Permissible Exposure Limit: No

ACGIH Threshold Limit Value: N/A

Other Exposure Limit Use: N/A

4. FIRST AID MEASURES

Eye:	In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician. If symptoms such as redness and irritation persist, obtain medical attention.
Skin:	In case of contact, immediately wash skin with soap and copious amounts of water.
Inhalation:	If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.
Ingestion:	If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5. FIRE FIGHTING MEASURES

General Information

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media

Water spray, Carbon Dioxide, dry chemical powder or appropriate foam

Flammable Properties

Flash Point:	NA
Flash Point Method:	NA
Autoignition Temperature:	NA
Upper Explosion Limit:	NA
Lower Explosion Limit:	NA

6. ACCIDENTAL RELEASE MEASURES

General Information

Use proper personal protective equipment as indicated in Section 8.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing.

Avoid prolonged or repeated exposure.

User Exposure: Avoid Inhalation.

Use personal protective equipment (i.e. impermeable gloves, lab coat or apron)

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Storage: Keep tightly closed.
Store at -20°F (do not store at -80°C)

8. ENGINEERING CONTROLS/PERSONAL PROTECTION

Respiratory: A protective dust mask is advisable to avoid breathing particulates when a powdered form of the product is being handled. Wear an appropriate respirator

Mechanical (General): Vent Fan

Ventilation: Advisable

Local Exhaust: As Required

Hand: Compatible impermeable gloves to prevent skin contact.

Eye: Chemical safety goggles or splash guard safety glasses.

Other Protective Clothing or Equipment: Sensitive individuals should wear dust masks/respirators, protective gloves, eye protection, lab coat, apron or other protective clothing to minimize contact.

General Hygiene Measures: Wash hands thoroughly after handling.
Wash contaminated clothing (lab coat/apron) before using again.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State-Appearance:	Liquid – colorless
Odor:	NA
pH:	NA
Vapor Pressure:	< 1 mm Hg @ 20°C
Vapor Density:	3.1 g/L
Evaporation Rate:	NA
Boiling Point:	182°C
Freezing/Melting Point:	20°C
Solubility in Water:	NA
Specific Gravity:	1.262

10. STABILITY AND REACTIVITY

Chemical Stability

Stable.

Conditions to Avoid

Strong oxidizing agents.

Hazardous Decomposition Products

Decomposition products are not hazardous.

Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

LD₅₀ ORL-RAT: 12600 mg/kg **FEPR7** 4, 142, 1945

Carcinogenicity: ND

Epidemiology: ND

Teratogenicity: ND

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Reproductive Effects: ND

Neurotoxicity: ND

Mutagenicity: ND

Other Studies: ND

12. ECOLOGICAL INFORMATION

Data Not yet Available

13. DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service to dispose of this material.

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3.

Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

US DOT : Non-hazardous for Transport: This substance is considered to be nonhazardous for transport

Required Label Description: None (not regulated)

15. OTHER INFORMATION

MSDS Creation Date: 24 August 2009

DISCLAIMER

For research use only. Not for drug, household or other uses. Not for use in humans or in the treatment of diseases in animals. The information contained in this MSDS relates only to the material(s) designated and does not relate to use(s) in combination with any other material, process(es) and/or chemical reaction(s). This information is provided in good faith, from sources believed to be accurate; however, Nature Technology Corporation assumes no liability for its accuracy or completeness.