

Taq DNA polymerase

Identification of the product / Substance and of the company

Product Name: Taq DNA polymerase

Catalog Number: MB101-0500(N)

Use of the product: For laboratory use.

Company identification: BIO-HELIX Co., LTD.

Site: <http://www.bio-helix.com>

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Composition / Information on ingredients

Ingredients :

Taq DNA polymerase

Water	~ 48% (v/v)	EC#231-791-2	CAS#7732-18-5
Glycerol	50% (v/v)	EC#200-289-5	CAS#56-81-5
DNA polymerase	< 0.1% (w/v)	EC#	CAS#
Potassium chloride	< 1% (w/v)	EC#231-211-8	CAS#7447-40-7
EDTA	< 0.01% (w/v)	EC#205-358-3	CAS#139-33-3
Dithiothreitol	< 0.1% (w/v)	EC#222-468-7	CAS#3483-12-3
Tween-20	0.5% (v/v)	EC#	CAS# 9005-64-5
Nonidet P-40	0.5% (v/v)	EC#	CAS# 9036-19-5
Tris-HCl	< 1% (w/v)	EC# 214-684-5	CAS#1185-53-1

10x Taq DNA polymerase buffer

Water	~ 48% (v/v)	EC#231-791-2	CAS#7732-18-5
Potassium chloride	< 1% (w/v)	EC#231-211-8	CAS#7447-40-7
Triton X-100	1% (v/v)	EC#	CAS#9002-93-1
Tris-HCl	3% (w/v)	EC# 214-684-5	CAS#1185-53-1
Magnesium sulfate	< 1% (w/v)	EEC#231-298-2	CAS#7487-88-9
Ammonium sulfate	< 2% (w/v)	EC#231-984-1	CAS#7783-20-2

Ingredients indicated above do not present a health or environmental hazard within the meaning of Council Directive 67/548/EEC, or their concentrations do not exceed the limits specified in Council Directive 1999/45/EC, and in Commission Directive 2001/58/EC.

Hazards identification

The product is not classified as dangerous according to Directive 1999/45/EC or Directive 67/548/EC, and is not labeled with danger symbols or indications of danger.

Hazards deriving from physical-chemical properties :

The data available do not support any physical or chemical hazard.

Human health hazards :

Inappropriate handling may cause formation of aerosols. Inhalation of aerosols may cause allergic type reactions in sensitized individuals. Prolonged skin contact may cause minor irritation. Caution: Avoid inhalation, ingestion, and skin contacts.

Environmental hazards: The data available do not support any environmental hazard.

First Aid Measures

Ingestion:

If swallowed, rinse mouth and throat thoroughly with water. Consult a doctor in event of any complaints.

Inhalation:

If inhaled, remove victim from area of exposure. If symptoms of irritation or respiratory allergy occur, consult a doctor.

Skin contact:

Generally, the product does not irritate the skin. If symptoms of irritation after prolonged exposure occur, consult a doctor.

Eye contact:

In case of contact, wash out opened eyes with plenty of water for several minutes. Consult a doctor in event of any complaints.

Fire-fighting measures

The product cannot cause fire.

Suitable extinguishing agents: Water spray, Carbon Dioxide, dry chemical powder or appropriate foam.

Not suitable extinguishing agents: None.

Special exposure hazards from decomposition products: Not thoroughly investigated.

Protective equipment: Wear self-contained breathing apparatus and protective clothing.

Accidental release measures

Personal precautions: Wear appropriate gloves (see Section 8), safety glasses to clean small releases/spillage. In case of vapor/aerosol formation, wear suitable respiratory protection means. Ventilate the area.

Environmental precautions: No special measures required.

Methods for cleaning up:

Absorb spillages with liquid-binding material. Ventilate and wash the area after the spillage is completely removed.

Additional information: No dangerous substances are released.

Handling and storage

Handling: No further requirements.

Use appropriate personal protection measures (see Section 8). Avoid any contact with the liquid. Avoid the formation of aerosols. Ventilate area.

Storage: Store at - 20°C.

None other specific requirements relating to the product.

Exposure controls / personal protection

Ingredients with limit values that require monitoring at the workplace :

The product does not contain any relevant quantities of materials with critical values that need to be monitored at the workplace.

General protective and hygienic measures: The usual precautionary measures are the same as for chemicals handling.

Engineering measures : None specific requirements relating to the product.

Personal protection :

- Respiratory protection : No special measures required.
- Hand protection : Wear rubber gloves. None special requirements to rubber.
- Eye protection : No need to wear glasses (goggles) when ordinary operations with the product. Safety glasses are recommended during certain operations when aerosol formation is possible.
- Skin protection : The usual precautionary measures accepted in research laboratories, e.g. protective clothes (gowns). None specific requirements.

Physical and chemical properties

Appearance: Liquid.

Color: Colorless.

Odor: Odorless.

pH-value at 25°C: 7.6.

Boiling point: 182°C.

Flash Point: Not applicable.

Flammability/autoflammability: The product is not flammable/self-igniting.

Explosive properties: The product does not possess explosive properties.

Oxidizing properties: Not applicable.

Vapor pressure: Not applicable.

Relative density at 20°C: ~1.13 g/cm³.

Solubility in/miscibility with water: Fully miscible.

Fat solubility: Not applicable.

Vapor density: Not applicable.

Evaporation rate: Not applicable.

Conductivity: Not applicable. Viscosity: Viscous.

Stability and reactivity

Stability: Stable under storage conditions (see Section 7). Storage at room temperature may result in lowering of the specific activity, but not result in any hazardous reactions.

Conditions to avoid: No conditions which may cause dangerous reactions.

Possibility of hazardous reactions: No dangerous reactions known.

Materials to avoid: No materials which may cause dangerous reactions.

Hazardous decomposition products: No dangerous decomposition products known.

Hazardous polymerization: Will not occur.

Toxicological information

Routes of exposure:

Inhalation: Inhalation of aerosols may cause allergic type reactions in sensitized individuals.

Ingestion: Repeated ingestion or excessive dosage may cause irritation of the gastrointestinal tract.

Skin and eye contact: Generally, the product does not irritate the skin and eyes. Prolonged skin or eye contact may cause minor irritation.

Additional toxicological information :

When used and handled according to specifications, the product does not have any harmful effects. The product is not listed in a priority list as foreseen under Council Regulation (EEC) No 793/93 on the evaluation and control of the risks of the existing substances.

Ecological information

Ecotoxicity :

The product is considered not dangerous to the environment with respect to mobility, persistence and degradability, bioaccumulation, aquatic toxicity and other data relating to ecotoxicity.

Persistence and degradability : The product is readily biodegradable.

Bioaccumulative potential :

It is considered that the product does not accumulate in biota, and does not pass through the food chain.

Other adverse effects : Not applicable.

Disposal considerations

The disposal of the product does not present a danger.

No special disposal methods required, except to be in accordance with current local environmental regulations.

Transport information

Special precautions: None known.

Proper shipping name: Not dangerous goods according to transport regulations.

National transport regulations: No additional national transport regulations are known to the supplier.

IMDG: Non-hazardous for sea freight.

ADR: Non-hazardous for road transport.

RID: Non-hazardous for rail transport.

ICAO/IATA: Non-hazardous for air transport.

Other information: The product may be stored in ice during the transportation.

Regulatory information

US

Labelling according to US Regulations: Caution: Avoid contact and inhalation.

US Regulatory information: SARA LISTED: No.

EU

Labelling according to EU Guidelines: The product is not dangerous within the meaning of Directives 67/548/EC, 1999/45/EC, and 88/379/ECC, and is not labelled with danger symbols or indications of danger.

Canada

WHMIS classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

DSL: No.

NDSL: No.

Other information

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Bio-Helix Co., Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.