



### 1. PRODUCT/PREPARATION/COMPANY

Trade name: **BIOTOOLS Pfu DNA Polymerase**  
1U/ µl

Company: Biotoools, B & M Labs, S.A.  
Valle de Tobalina – 52 – Nave 39  
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SPAIN  
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Product Number: 10.501, 10.502, 10.511, 10.512

Emergency number: please contact Biotoools distributor in your country. Spain only: 91 562 04 20

### 2. COMPOSITION OF THE PRODUCT/INFORMATION ON INGREDIENTS

Chemical characterisation: Solutions in buffer. Volume of each product package varies: 110µl - 275 µl.

Active ingredients:

CAS-No	EC no	Name	Contents	Danger <sup>1</sup>	Risks
56-81-5	200-289-5	<b>Glycerol</b>	>80%	None	None
77-86-1	201-064-4	<b>Tris hydroxymethyl aminomethane (Tris)</b>	≈9%	Xi	R 36/38
9005-64-5	NA	<b>Tween 20</b>	0,1%	None	None
7647-01-0	231-595-7	<b>Hydrochloric acid</b>	<0,01%	C Xi	R 34-37 S 26-36/37/39-45
9036-19-5	NA	<b>Nonidet P 40</b>	<0,5%	Xi Xn	R 22 S 37/39-41
7447-40-7	231-211-8	<b>Potassium chloride</b>	<0,5%	Xi	R36 S26- 39

For further information about DNA polymerase components see:

- **20.034- Standard Reaction Buffer MSDS** (included in ref. 10.501 & 10.502)
- **20.035- Reaction Buffer MgCl<sub>2</sub> free 10X MSDS** (included in ref. 10.511 to 10.512)
- **20.036- MgCl<sub>2</sub> MSDS** (included in ref. 10.511 to 10.512)

### 3. HAZARDS IDENTIFICATION

#### Primary routes of entry

Skin or eye contact from splashes.

#### Ingestion

Harmful if swallowed. May cause irritation to the gastrointestinal tract.

#### Skin contact

May cause irritation

#### Eye contact

Irritating

#### Evidence for reproductive toxicity, carcinogenicity and mutagenicity

No data available

<sup>1</sup> Dangers and risks on active ingredients are applicable to pure ingredients. Amounts present in the specified product are under threshold levels as per Directive 67/548/EC and other European Legislation in force.

<b>Hazard Ingredients</b>	
<b>Tris hydroxymethyl aminomethane (Tris)</b>	Irritating to eyes and skin.
<b>Hydrochloric acid</b>	Causes burns. Irritating to respiratory system. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately. (Show the label where possible).
<b>Nonidet P40</b>	Harmful if swallowed. Wear suitable protective clothing and eye/face protection. In case of fire and/or explosion do not breath fumes.
<b>Potassium chloride</b>	Irritating to eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eyes/face protection.

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#### 4. FIRST AID MEASURES

**Skin contact**

Wash skin with water and soap and rinse thoroughly. Remove contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Get medical attention.

**Eye contact**

Rinse opened eyes for at least 15 min with copious amounts of water. Check for and remove any contact lenses. Call a physician.

**Ingestion**

Do NOT induce vomiting unless directed to do so by medical personnel. Rinse mouth with plenty of water. Call a physician. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

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#### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media**

Water spray, carbon dioxide, dry chemical powder or appropriate foam.

**Fire and explosion hazards**

Emits irritant or toxic fumes under fire conditions.

**Protective equipment**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes

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#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Wear protective gloves and goggles.

**Environmental precautions**

Product must not enter ground, sewerage system or water course

**Measures for cleaning/collecting**

Collect spilled liquid with liquid-binding material or inert absorbent and place it in a container for disposal. Wash spill site after material pickup is complete.

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#### 7. HANDLING AND STORAGE

**Handling**

Always keep the containers tightly closed. Observe good laboratory technique when handling.

**Storage**

Store in the original container, at -20°C.

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**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Exposure limits**

Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits.

**Eye protection**

Wear goggles

**Hand protection**

Wear protective gloves

**Skin protection**

Wear labcoat

**Hygiene measures**

General industrial hygiene practice.

**Breathing equipment**

Use an approved/certified respirator or equivalent

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** Liquid  
**Colour:** Colorless  
**Odour:** Odorless  
**Boiling point:** no data available.

**Flash point:** no data available  
**Explosive properties:** no data available  
**Vapor pressure:** no data available  
**pH:** 7-9

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## 10. STABILITY AND REACTIVITY

**Stability**  
Stable under normal handling and storage conditions

**Decomposition**  
No data available

**Conditions to avoid**  
Avoid strong oxidising agents, fire.

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## 11. TOXICOLOGICAL INFORMATION

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. May cause skin irritation.  
**Eyes** May cause eye irritation.  
**Ingestion** May be harmful if swallowed.

**Acute toxicity**

**Tris hydroxymethyl aminomethane (Tris):** oral; rat; LD50: 5900 mg/kg  
**Hydrochloric acid:** inhalative, rat: 3124 ppm(V)/1 h (pure substance)  
**Potassium chloride:** oral, rat, LD50: 2430 mg/kg  
**Glycerol:** oral; rat; LD50: 12600 mg/kg  
**Tween 20:** oral; rat; LD50: 37000 mg/kg  
**Nonidet P40:** oral; rat; LD50: 2800 mg/kg

**Chronic exposure**

Products may cause allergic reactions in certain sensitive individuals

**Sensitization**

No data available

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## 12. ECOLOGICAL INFORMATION

Data not yet available

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## 13. DISPOSAL CONSIDERATIONS

Controlled disposal in waste system. Product disposal (leftovers or residues resulting from normal use) does not pose any serious hazards in the adequate proportion.

The product and packaging should be disposed of in accordance with the instructions of the local authorities.

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## 14. TRANSPORT INFORMATION

**RID/ADR**

Non-hazardous for road transport

**IMDG**

Non-hazardous for sea transport

**IATA**

Non-hazardous for air transport

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**15. REGULATORY INFORMATION**

DANGERS AND RISKS ON ACTIVE INGREDIENTS ARE APPLICABLE TO PURE INGREDIENTS. AMOUNTS PRESENT IN THE SPECIFIED PRODUCT ARE UNDER THRESHOLD LEVELS AS PER DIRECTIVE 67/548/EC AND OTHER EUROPEAN LEGISLATION IN FORCE.

<b>Pfu DNA Polymerase</b>	
<b>Indication of Danger</b>	-
<b>R phrases</b>	<b>R22</b> Harmful if swallowed. <b>R36/38</b> Irritating to eyes and skin.
<b>S Phrases</b>	<b>S26</b> In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. <b>S 36/37/39</b> Wear suitable protective clothing, gloves and eye/face protection <b>S45</b> In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**16. 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. The information in this document is based on the present state of our knowledge, and is applicable to the product with regards to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Biotools, B & M Labs, S.A. shall not be held liable for any damage resulting from handling or from contact with the above product.

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