

**1. PRODUCT/PREPARATION/COMPANY**

Trade name: **BIOTOOLS DNA Markers**  
 • 1 kb ladder  
 • 100 bp ladder  
 • Lambda/HindIII

Company: Biotools, B & M Labs, S.A.  
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Product Number: 31.005, 31.006, 31.011

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

**2. HAZARDS IDENTIFICATION**

**Primary routes of entry**

Skin or eye contact from splashes  
 Inhalation of the vapor at room temperature is unlikely

**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.



**Hazard Ingredients**

<b>Ethylenediaminetetraacetic acid</b>	Irritating to eyes. Harmful to aquatic organisms, may cause long- term adverse effects in the aquatic environment. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Avoid release to the environment. Refer to special instructions/ Safety data sheets.
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**3. COMPOSITION OF THE PRODUCT/INFORMATION ON INGREDIENTS**

Chemical characterisation: Solutions in buffer. Volume of each product package: 50 µg

Active ingredients:

CAS-No	EC no	Name	Contents	Danger <sup>1</sup>	Risks
7732-18-5	231-791-2	Water	<90%	None	None
1185-53-1	214-684-5	Tris (hydroxymethyl) aminomethane Hydrochloride	<1%	None	None
60-00-4	200-449-4	Ethylenediaminetetraacetic acid	<1%	Xi  	H 319/413 P305/351/337/338/313/273
7647-14-5	231-598-3	Sodium chloride	<1%	None	None

<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.

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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 -15±8°C.

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**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION****Exposure limits**

No special ventilation requirements. The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace

**Eye protection**

Wear safety glasses

**Hand protection**

Wear protective gloves

**Skin protection**

Wear labcoat

**Hygiene measures**

General industrial hygiene practice

**Breathing equipment**

Use a properly fitted, particulate filter respirator complying with an approved standard if risk assessment indicates this is necessary.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****Form:** Solutions in water**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:** No data available

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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****Potencial Health Effects****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**

No data available

**Chronic exposure**

No data available.

**Sensitization**

No data available.

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**12. ECOLOGICAL INFORMATION**

DANGERS AND RISKS ON ACTIVE INGREDIENTS ARE APLICABLE 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.

EDTA is harmful to aquatic organisms, may cause long- term adverse effects in the aquatic environment.

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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.

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**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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