



1. PRODUCT/PREPARATION/COMPANY

Trade name: **BIOTOOLS DNA Markers**

- 1 kb ladder
- 100 bp ladder
- Lambda/HindIII

Company: Biotoools, B & M Labs, S.A.
Valle de Tobalina – 52 – Nave 39
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Product Number: 31.005, 31.006, 31.011

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: 50 µg

Active ingredients:

CAS-No	EC no	Name	Contents	Danger ¹	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	R 36-52/53 S 26-61
7647-14-5	231-598-3	Sodium chloride	<1%	None	None

3. 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

Ethylenediaminetetraacetic acid	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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¹ 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.

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.

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

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.

7. HANDLING AND STORAGE

Handling

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

Storage

Store in the original container, at $-15\pm 8^{\circ}\text{C}$.

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.



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

10. STABILITY AND REACTIVITY

Stability
Stable under normal handling and storage conditions

Decomposition
No data available

Conditions to avoid
Avoid strong oxidising agents, fire.

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

TrisHCl: oral; rat; LD50: 5900 mg/kg
EDTA: oral, rat, LD50: 4000 mg/kg

Chronic exposure
No data available.

Sensitization
No data available.

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.

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.

14. TRANSPORT INFORMATION

RID/ADR
Non-hazardous for road transport

IMDG
Non-hazardous for sea transport

IATA
Non-hazardous for air transport

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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