



### 1. PRODUCT/PREPARATION/COMPANY

Trade name: **Plasmids: pKT1, pMK18, pMKE1, pMKE2** Company: Biotoools, B & M Labs, S.A.  
Valle de Tobalina – 52 – Nave 39  
28021 Madrid  
SPAIN  
Tel: + 34 91 710 00 74  
Fax: + 34 91 505 31 18





Product Number: 31.017, 31.018, 31.019, 31.120

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 water and buffer. Volume of each product package varies: 7-11 µl (1,5 ml vials)

Active ingredients:

CAS-No	EC no	Name	Contents	Danger <sup>1</sup>	Risks
7732-18-5	231-791-2	Water	<80%	None	None
NA	NA	DNA	1%	None	None
77-86-1	201-064-4	Tris hydroxymethyl aminomethane (Tris)	<15%	Xi 	R 36/38
60-00-4	200-449-4	Ethylenediaminetetraacetic acid (EDTA)	<5%	Xi 	R 36- 52/53 S 26-61
7647-01-0	231-595-7	Hydrochloric acid	<0,01%	C  Xi 	R 34-37 S 26-36/37/39-45

### 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

Hazard Ingredients	
<b>Tris hydroxymethyl aminomethane (Tris)</b>	Irritating to eyes and skin.
<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.
<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).

<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.



#### 4. FIRST AID MEASURES

**Skin contact**

Wash skin with water and soap and rinse thoroughly. Remove contaminated clothing and shoes. 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 alcohol- resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Fire and explosion hazards**

Emits irritant or toxic fumes under fire conditions.

**Protective equipment**

Wear self-contained breathing apparatus and protective clothing for fire-fighting if necessary.

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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  $-15\pm 7^{\circ}\text{C}$ .

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Exposure limits**

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

**Eye protection**

Wear goggles

**Hand protection**

Wear protective gloves

**Skin protection**

Wear labcoat

**Hygiene measures**

General industrial hygiene practice.

**Breathing equipment**

Not required

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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:** 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

### 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

**EDTA:** oral; rat; LD50: 4000 mg/kg

**Hydrochloric acid:** inhalative, rat: 3124 ppm(V)/1 h (pure substance)

### Chronic exposure

Products may cause allergic reactions in certain sensitive individuals

### 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 may be 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**

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**Plasmids: pKT1, pMK18, pMKE1, pMKE2**

<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. Biotoools, 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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