

1. PRODUCT/PREPARATION/COMPANY

 Trade name: **Thermotools cloning kit
&
Thermus thermophilus Growth
and Transformation Kit**

 Company: Biotoools, B & M Labs, S.A.
 Valle de Tobalina – 52 – Nave 39
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Product Number: 31.117, 31.121

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: solution, gel and freeze-dry. Volume of each product package varies: 1,5 ml-250 ml

The kits contain the following components:

- **Plasmid** (100 ng/µl)
 pMK18 (Thermotools cloning kit)
 pMKE2 (*Thermus thermophilus* Growth and Transformation Kit)
- **Thermus HB27 cells**
- **Th medium**
- **Petri plates** (special medium + Kanamycin 30 mg/ml)

Active ingredients:

CAS-No	EC no	Name	Contents	Danger ¹	Risks
7732-18-5	231-791-2	Water	<80%	None	None
NA	NA	DNA plasmids	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
NA	NA	Thermus HB27 cells	>99%	None	None
NA	NA	Th medium	>99%	None	None
70560-51-9	NA	Kanamycin	< 0,1%	None	None

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

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.



Eye contact

Irritating

Evidence for reproductive toxicity, carcinogenicity and mutagenicity

No data available

Hazard Ingredients	
Tris hydroxymethyl aminomethane (Tris)	Irritating to eyes and skin.
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.
Hydrochloric acid	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).

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.

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.

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 4°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

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: NA
Colour: NA
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

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

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.

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.

	Thermotools cloning kit	Thermus thermophilus Growth and Transformation Kit
PLASMIDS	Indication of Danger	-
	R phrases	-
	S Phrases	-
Thermus HB27 cells	Indication of Danger	-
	R phrases	R22 Harmful if swallowed
	S Phrases	S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39 Wear suitable gloves and eye/face protection.
Th medium	Indication of Danger	-
	R phrases	R22 Harmful if swallowed. R36/38 Irritating to eyes and skin.
	S Phrases	S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Petri plates	Indication of Danger	-
	R phrases	R22 Harmful if swallowed
	S Phrases	S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39 Wear suitable gloves and eye/face protection.

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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