



1. PRODUCT/PREPARATION/COMPANY

Trade name: **BIOGENICS STANDARD QL KIT** Company: Biotools, B & M Labs, S.A.
 Product Number: 90.402A, 90.402B, 90.402C, 90.402L, 90.402S
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2. COMPOSITION OF THE PRODUCT/INFORMATION ON INGREDIENTS

Chemical characterisation: Solutions in buffer/ gel. Volume of each product package varies: 75µl- 600 µl.

The kits contain the following components:

- PLANT MASTER MIX
- 35S MASTER MIX
- MgCl₂ (50 mM)
- DNA POLYMERASE 1 U/µl
- SYG
- SYG Buffer
- INTERNAL CONTROL

Active ingredients:

CAS-No	EC no	Name	Contents	Danger ¹	Risks
7732-18-5	231-791-2	Water	<80%	None	None
77-86-1	201-064-4	Tris hydroxymethyl aminomethane (Tris)	<1,5%	Xi	R 36/38
7647-01-0	231-595-7	Hydrochloric acid	<0,1%	C Xi	R 34-37 S 26-36/37/39-45
56-81-5	200-289-5	Glycerol	>80%	None	None
9002-93-1	NA	Triton X-100	0,1%	Xn	R 22-41 S 26-36-39
60-00-4	200-449-4	Ethylenediaminetetraacetic acid (EDTA)	<0,5%	Xi	R 36- 52/53 S 26-61
NA	NA	Oligonucleotides	<0,005%	None	None
7447-40-7	231-211-8	Potassium chloride	<0,5%	Xi	R36 S26- 39
7786-30-3	232-094-6	Magnesium chloride	< 0,5%	None	None
67-68-5	200-664-3	Dimethyl sulfoxide (DMSO)	<90%	F Xi	R 36/37/38 S 26-37/39
74299-50-6	277-809-2	dATP	0,0625-0,25 %	None	None
3770-58-9	223-208-5	dCTP	0,0625-0,25 %	None	None
93919-41-6	300-026-5	dGTP	0,0625-0,25 %	None	None
18423-43-3	NA	dTTP	0,0625-0,25 %	None	None
163795-75-3	NA	SYBR® Green	<0,5%	None	None
None	None	Control DNA – non infective native and GMO plant sequences cloned in a pUC-derived plasmid	<0.0001 %	None	None

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.



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	
Tris hydroxymethyl aminomethane (Tris)	Irritating to eyes and skin.
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).
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.
Potassium chloride	Irritating to eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eyes/face protection.
Triton X-100	Harmful if swallowed. Risk of serious damage to eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eyes/face protection. Wear suitable protective clothing.
Dimethyl sulfoxide	Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and face/eye protection.

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. Evacuate area. Shut off all sources of ignition.

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 each component of the kit in the original container, at $-18\pm 5^{\circ}\text{C}$.

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.

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: NA

10. STABILITY AND REACTIVITY

Stability

Stable under normal handling and storage conditions

Decomposition

Carbon monoxide, carbon dioxide, nitrogen oxides

Conditions to avoid

Avoid strong oxidising agents, peroxides, acids, acid chlorides, acid anhydrides, alkali metals, ammonia.

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)
Ethylenediaminetetraacetic acid (EDTA): oral, rat, LD50: 4000 mg/kg
Triton- X-100: oral, rat, LD50: 1800 mg/kg
Potassium chloride: oral, rat, LD50: 2430 mg/kg
Glycerol: oral; rat; LD50: 12600 mg/kg
Dimethyl sulfoxide: oral; rat; LD50: 14500 mg/kg

Chronic exposure

Products may cause allergic reactions in certain sensitive individuals

Sensitization

No data available

12. ECOLOGICAL INFORMATION

No data available.

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.

BIOGENICS STANDARD QL kit		
MASTER MIXES (PLANT & 35S)	Indication of Danger	Xn Harmful
	R phrases	R22 Harmful if swallowed. R36 Irritating to eyes
	S Phrases	S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
SYG Buffer	Indication of Danger	F Flammable Xi Irritant
	R phrases	R36/37/38 Irritating to eyes, respiratory system and skin.
	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.
DNA POLYMERASE	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).
SYG/ INTERNAL CONTROL & MgCl₂	Indication of Danger	-
	R phrases	-
	S Phrases	-

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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