

---

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 PRODUCT IDENTIFIER**

Trade name: **BIOGENICS Bt-11 MAIZE ID Kit**

Product Number: 91.234

Chemical Name: Not Applicable

**1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST.**

**Relevant identified uses: For research use only. Not for use in diagnostic procedures.**

**Uses advised against: Not for consumer use**

**1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET.**

**Manufacturer / Supplier**

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

**1.4 EMERGENCY NUMBER**

Please contact Biotoools distributor in your country. Spain only: 91 562 04 20

---

**2. HAZARDS IDENTIFICATION**

**2.1 CLASSIFICATION OF THE MIXTURE**

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

**2.2 LABEL ELEMENTS**

**Label elements**

**Hazard pictograms**

None

**Signal Word**

None

**Hazard Statements**

Not Applicable

**EU Specific Hazard Statements**

Not Applicable

**Precautionary Statements**

**Prevention**

Not Applicable

**Response**

Not Applicable

**Storage**

Not Applicable

**Disposal**

Not Applicable

**2.3 OTHER HAZARDS**

None known

**3.COMPOSITION OF THE PRODUCT/INFORMATION ON INGREDIENTS**

**3.1 SUBSTANCE**

Not applicable

**3.2 MIXTURE**

Chemical characterisation: Solutions in buffer. Volume of each product package varies: 220µl – 1.8ml.

Active ingredients:

CAS-No	EC no	Name	Contents	Danger <sup>1</sup>	Risks
56-81-5	200-289-5	<b>Glycerol</b>	>0.1%	None	None
7786-30-3	232-094-6	<b>Magnesium chloride</b>	>0.1%	None	None
77-86-1	201-064-4	<b>Trizma base</b>	>0.1%	None	None

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

**4. FIRST AID MEASURES**

**4.1 DESCRIPTION OF FIRST AID MEASURES**

**Skin contact**

Wash skin with water and soap and rinse thoroughly. Remove contaminated clothing and shoes.

**Eye contact**

Rinse out with plenty of water. Check for and remove any contact lenses.

**Ingestion**

Make victim drink water. Call a doctor if feeling unwell.

**Inhalation**

After inhalation remove to fresh air.

**4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED**

No information available

**4.3 INDICATION OF ANY IMMEDIATE ATTENTION AND SPECIAL TREATMENT NEEDED**

No information available

**5. FIRE FIGHTING MEASURES**

**5.1 EXTINGUISHING MEDIA**

**Suitable extinguishing media**

Water, Foam, Carbon dioxide (CO2), Dry powder.

**Unsuitable extinguishing media**

For this mixture no limitations of extinguishing agents are given.

**5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE**

Nature of decomposition products not known.

Not combustible.

**5.3 ADVICE FOR FIREFIGHTERS**

**Special protective equipment for firefighters**

In the event of fire wear self-contained breathing apparatus.

**Further information**

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

**6. ACCIDENTAL RELEASE MEASURES**

**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

**Advice for non-emergency personnel:**

Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

**Advice for emergency responders:**

Protective equipment see section 8.

**6.2 ENVIRONMENTAL PRECAUTIONS**

Do not let product enter drains.

**6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

**6.4 REFERENCE TO OTHER SECTIONS**

Indications about waste treatment see section 13.

---

**7. HANDLING AND STORAGE**

**7.1 PRECAUTIONS FOR SAFE HANDLING**

**Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance

**7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES**

**Storage conditions:**

Tightly closed.

Recommended storage temperature see product label

**7.3 SPECIFIC END USE(S)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

---

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**8.1 CONTROL PARAMETERS**

Ingredients with workplace control parameters

## 8.2 EXPOSURE CONTROLS

### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

#### *Eye/face protection*

Tightly fitting safety goggles

Use equipment for eye protection tested and approved under appropriate government standards

#### *Hand protection*

full contact:

Glove material: butyl-rubber  
Glove thickness: 0,7 mm  
Break through time: > 480 min

splash contact:

Glove material:butyl-rubber  
Glove thickness:0,7 mm  
Break through time:> 480 min

#### *Other protective equipment*

protective clothing

#### *Respiratory protection*

required when vapours/aerosols are generated.

Recommended Filter type: Filter A-(P2)

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

### Environmental exposure controls

Do not let product enter drains.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 INFORMATION ON BASIC 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:** 7-9

### 9.2 OTHER DATA

No information available

---

## 10. STABILITY AND REACTIVITY

### 10.1 REACTIVITY

No data available

### 10.2 CHEMICAL STABILITY

Stable under normal handling and storage conditions

**10.3 POSSIBILITY OF HAZARDOUS REACTIONS**

No data available

**10.4 CONDITIONS TO AVOID**

No data available

**10.5 INCOMPATIBLE MATERIALS**

Strong oxidizing agents

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS**

In the event of fire: See section 5.

---

**11. TOXICOLOGICAL INFORMATION**

**11.1 INFORMATION ON TOXICOLOGICAL EFFECTS**

**Glycerol**

*Acute toxicity*

LD50 Oral - Rat - 27.200 mg/kg

Remarks: (ECHA)

LD50 Dermal - Rabbit - > 10.000 mg/kg

Remarks: (External MSDS)

*Skin corrosion/irritation*

Skin - Rabbit

Result: No skin irritation - 24 h

Remarks: (ECHA)

*Serious eye damage/eye irritation*

Eyes - Rabbit

Result: No eye irritation

Remarks: (ECHA)

*Respiratory or skin sensitization*

No data available

*Germ cell mutagenicity*

No data available

*Carcinogenicity*

No data available

*Reproductive toxicity*

No data available

*Specific target organ toxicity - single exposure*

No data available

*Specific target organ toxicity - repeated exposure*

No data available

*Aspiration hazard*

No data available

**Trizma base**

*Acute toxicity*

LD50 Oral - Rat - female - > 5.000 mg/kg

(OECD Test Guideline 425)

LD50 Dermal - Rat - male and female - > 5.000 mg/kg

(OECD Test Guideline 402)

*Skin corrosion/irritation*

Skin - Rabbit

Result: No skin irritation - 4 h  
(OECD Test Guideline 404)

*Serious eye damage/eye irritation*

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

*Respiratory or skin sensitization*

No data available

*Germ cell mutagenicity*

Mutagenicity (mammal cell test): chromosome aberration.

Chinese hamster lung cells

Result: negative

In vitro mammalian cell gene mutation test

Chinese hamster ovary cells

Result: negative

*Carcinogenicity*

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

*Reproductive toxicity*

No data available

*Specific target organ toxicity - single exposure*

No data available

*Specific target organ toxicity - repeated exposure*

No data available

*Aspiration hazard*

No data available

**Magnesium chloride**

*Acute toxicity*

LD50 Oral - Rat - female - > 5.000 mg/kg

(OECD Test Guideline 423)

LD50 Dermal - Rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 402)

**11.2 FURTHER INFORMATION**

No data available.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Handle in accordance with good industrial hygiene and safety practice

---

**12. ECOLOGICAL INFORMATION**

**12.1 TOXICITY**

**Glycerol**

*Toxicity to fish*

static test LC50 - Oncorhynchus mykiss (rainbow trout) - 54.000

mg/l - 96 h

Remarks: (ECHA)

**Trizma base**

*Toxicity to daphnia and other aquatic invertebrates*

static test EC50 - Daphnia magna (Water flea) - > 980 mg/l - 48 h

(OECD Test Guideline 202)

*Toxicity to bacteria*

static test EC50 - activated sludge - > 1.000 mg/l - 3 h  
(OECD Test Guideline 209)

**Magnesium chloride**

*Toxicity to fish*

static test LC50 - Pimephales promelas (fathead minnow) - 2.119,3mg/l - 96 h  
(US-EPA)

*Toxicity to daphnia and other aquatic invertebrates*

static test LC50 - Daphnia magna (Water flea) - 548,4 mg/l - 48 h

*Toxicity to algae*

Growth rate EC50 - Desmodesmus subspicatus (green algae) - > 100mg/l - 72 h  
(OECD Test Guideline 201)

*Toxicity to bacteria*

static test EC50 - activated sludge - > 900 mg/l - 3 h  
(OECD Test Guideline 209)

**12.2 PERSISTENCE AND DEGRADABILITY**

No data available

**12.3 BIOACCUMULATIVE POTENTIAL**

No data available

**12.4 MOBILITY IN SOIL**

No information available.

**12.5 RESULTS OF PBT AND vPvB ASSESSMENT**

Substance(s) in the mixture do(es) not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII, or a PBT/vPvB assessment was not Conducted.

**12.6 OTHER ADVERSE EFFECTS**

---

**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**

**14.1 UN number**

ADR/RID: - IMDG: - IATA: -

**14.2 UN proper shipping name**

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

**14.3 Transport hazard class(es)**

ADR/RID: - IMDG: - IATA: -

**14.4 Packaging group**

ADR/RID: - IMDG: - IATA: -

**14.5 Environmental hazards**

ADR/RID: no IMDG Marine pollutant: no IATA: no

**14.6 Special precautions for user**

**Further information**

Not classified as dangerous in the meaning of transport regulations.

---

**15. REGULATORY INFORMATION**

**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**15.2 CHEMICAL SAFETY ASSESSMENT**

For this product a chemical safety assessment was not carried out.

---

**16. OTHER INFORMATION**

**Training advice**

Provide adequate information, instruction and training for operators.

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.

© Biotoools, B & M Labs, S.A. License granted to make unlimited paper copies for internal use only.

**DISCLAIMER**

For Research Use Only