

**1. PRODUCT/PREPARATION/COMPANY**

 Trade name: **HI-GEL Matrix**

 Company: Biotoools, B & M Labs, S.A.  
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 SPAIN  
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Product Number: 20.041, 20.042

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 powder(gel). Volume of product package varies: 1l- 2 litres.

Active ingredients:

CAS-No	EC no	Name	Contents	Danger <sup>1</sup>	Risks
7732-18-5	231-791-2	<b>Water</b>	>99%	None	None
110-18-9	203-744-6	<b>TEMED</b>	< 0.000001 %	F C	R 11- 20/22- 34 S 16- 26- 36/37/39- 45
79-06-1	201-173-7	<b>Acrylamide</b>	< 0,000001%	T	R 45- 46- 20/21- 25- 36/38- 43 48/23/24/25- 62 S 53-45
7227-54-0	231-786-5	<b>Ammonium persulfate</b>	< 0.000001%	O Xn	R 8- 22- 36/37/38- 42/43 S 22-24-26-37

For further information about HI-GEL Matrix components see:

- 20.011-14- MB Agarose MSDS

**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**

This product contains a component that has been reported to be probably carcinogenic, tumorigen, mutagen and reproductive effector.

<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.



<b>Hazard Ingredients</b>	
<b>Acrylamide</b>	Harmful by inhalation and in contact with skin. Toxic if swallowed. Irritating to eyes and skin. May cause sensitization by skin contact. May cause cancer. May cause heritable genetic damage. Toxic: danger of serious damage to health by prolonged exposure through inhalation, contact with skin and if swallowed. Possible risk of impaired fertility. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid exposure- obtain special instructions before use.
<b>Ammonium persulfate</b>	Contact with combustible material may cause fire. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact. Do not breath dust. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves.
<b>TEMED</b>	Highly flammable. Harmful by inhalation and if swallowed. Causes burns. Keep away from sources of ignition- No smoking. 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

***Because of the toxic and highly absorptive nature of some of the active ingredients of the product, quickly providing first aid helps to minimize health effects.***

##### **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**

Carbon dioxide, dry chemical powder, appropriate foam or oxidizing material. Water may be ineffective.

##### **Fire and explosion hazards**

TEMED may form explosive vapour- air mixtures, under fire conditions. Sealed containers may rupture when heated. Vapors can flow along surfaces to distant ignition source and flash back. Sensitive to static discharge.

##### **Protective equipment**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes



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## 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

Do not touch spilled material. Ventilate area of leak or spill. Isolate hazard area. Contain and recover liquid when possible. Use non sparking tools and equipment. Clean up spills in a manner that does not disperse dust into the air. Collect liquid in an appropriate container or absorb with an inert material and place in a chemical waste container.

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## 7. HANDLING AND STORAGE

### Handling

Always keep the containers tightly closed. Observe good laboratory technique when handling. Normal measures for preventive fire protection.

### Storage

Store in the original container, at temperatures 5±3 °C. Protect against physical damage. Store separately from reactive or combustible materials and out of direct sunlight. Isolate from oxidizing materials and peroxides. Store away from acids and alkalines.

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## 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.

### Skin protection

Wear labcoat

### Eye protection

Wear goggles

### Hygiene measures

General industrial hygiene practice.

### Hand protection

Wear protective gloves

### Breathing equipment

Use an approved/certified respirator or equivalent.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** Solutions in water (gel)

**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:** 5-7

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## 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. Heat, flames, ignition sources and incompatibles.

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## 11. TOXICOLOGICAL INFORMATION

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.
<b>Ingestion</b>	May be harmful if swallowed.

### Acute toxicity

**acrylamide**: oral; rat; LD50: 124 mg/kg  
**TEMED**: oral; rat; LD50: 268 mg/kg  
**ammonium persulfate**: oral; rat; LD50: 689 mg/kg

### Chronic exposure

Products may cause allergic reactions in certain sensitive individuals

This product contains a component that has been reported to be probably carcinogenic, tumorigen, mutagen and reproductive effector.

### Sensitization

No data available

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## 12. ECOLOGICAL INFORMATION

Data not yet available.

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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



**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.

<b>HI- GEL Matrix</b>	
<b>Indication of Danger</b>	<b>T</b> Toxic <b>Xn</b> Harmful
<b>R phrases</b>	<b>R 45</b> May cause cancer. <b>R46</b> May cause heritable genetic damage <b>R 20/21</b> Harmful by inhalation and in contact with skin. <b>R 25</b> Toxic if swallowed. <b>R 36/38</b> Irritating to eyes and skin. <b>R 43</b> May cause sensitization by skin contact. <b>R 48/23/24/25</b> Toxic: danger of serious damage to health by prolonged exposure through inhalation, contact with skin and if swallowed. <b>R 62</b> Possible risk of impaired fertility.
<b>S Phrases</b>	<b>S53</b> Wear suitable gloves. <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. 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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