

**Material Safety Data Sheet  
According to 91/155 EEC**

Printing date 25.10.2004

Reviewed on 25.10.2004

### 1 Identification of substance

· **Product details**

- **Trade name:** Technovit 7100 liquid
  - **Application of the substance / the preparation** Resin for histological examinations
- **Manufacturer/Supplier:**  
Heraeus Kulzer GmbH  
Grüner Weg 11, D-63450 Hanau  
Tel.: 06081 959-365 (Wehrheim)
- **Informing department:**  
Department of safety:  
Dr. Tuchscherer +49 6081 959-287
- **Emergency information:** Call +49 30 19240 (24 hours).

### 2 Composition/Data on components:

· **Chemical characterization**

- **Description:** Product based on methacrylates

· **Dangerous components:**

CAS: 868-77-9	2-hydroxyethyl methacrylate	Xi; R 36/38-43	75-90%
EINECS: 212-782-2			

- **Additional information** For the wording of the listed risk phrases refer to section 16.

### 3 Hazards identification

· **Hazard designation:**



Xi Irritant

· **Information pertaining to particular dangers for man and environment**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 36/38 Irritating to eyes and skin.

R 43 May cause sensitisation by skin contact.

· **Classification system**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

### 4 First aid measures

- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**  
Instantly wash with water and soap and rinse thoroughly.  
Instantly rinse with water.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing** Initiate vomiting and consult a doctor.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

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- **Special hazards caused by the material, its products of combustion or flue gases:**  
*Formation of toxic gases is possible during heating or in case of fire.*
- **Protective equipment:** *No special measures required.*

### 6 Accidental release measures

- **Person-related safety precautions:** *Not required.*
- **Measures for environmental protection:** *No special measures required.*
- **Measures for cleaning/collecting:**  
*Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).*
- **Additional information:** *No dangerous materials are released.*

### 7 Handling and storage

- **Handling**
  - **Information for safe handling:** *Keep containers tightly sealed.*
  - **Information about protection against explosions and fires:** *No special measures required.*
- **Storage**
  - **Requirements to be met by storerooms and containers:** *No special requirements.*
  - **Information about storage in one common storage facility:** *Not required.*
  - **Further information about storage conditions:** *Store cool (not above 25 °C).*

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** *No further data; see item 7.*
- **Components with critical values that require monitoring at the workplace:**  
*The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.*
  - **Additional information:** *The lists that were valid during the compilation were used as basis.*
- **Personal protective equipment**
  - **General protective and hygienic measures**  
*Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.*
  - **Breathing equipment:** *Not required.*
  - **Protection of hands:**  
*If skin contact cannot be avoided, protective gloves are recommended to avoid possible sensitization.  
Solvent resistant gloves  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*
    - **Material of gloves**  
*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*

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- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**  
PVA gloves
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**  
Butyl rubber, BR  
Fluorocarbon rubber (Viton)  
Nitrile rubber, NBR  
Chloroprene rubber, CR
- **Eye protection:** Protective goggles are recommended.
- **Body protection:** Light weight protective clothing

### 9 Physical and chemical properties:

#### · General Information

- **Form:** Fluid
- **Colour:** Colourless
- **Smell:** Characteristic

#### · Change in condition

- **Melting point/Melting range:** Not determined
- **Boiling point/Boiling range:** 205°C

· **Flash point:** 97°C

· **Ignition temperature:** 360.0°C

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· **Steam pressure at 20°C:** 0.1 hPa

· **Density at 20°C** 1.100 g/cm<sup>3</sup>

#### · Solubility in / Miscibility with

- **Water:** Not miscible or difficult to mix

#### · Viscosity:

- **dynamic at 20°C:** 50 mPas

#### · Solvent content:

- **Organic solvents:** 0.0 %
- **VOC EU** g/l
- **VOC EU** 0.00 %

· **Solids content:** 10.7 %

### 10 Stability and reactivity

- **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of composition:** None

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- **Additional information:**  
If stored longer than recommended and/or above recommended temperature, product may polymerize generating heat.

### 11 Toxicological information

- **Acute toxicity:**
  - **Primary irritant effect:**
    - **on the skin:** Irritant for skin and mucous membranes.
    - **on the eye:** Irritant effect.
  - **Sensitization:** Sensitization possible by skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:  
Irritant

### 12 Ecological information:

- **General notes:**  
Water hazard class 1 (calculated according to VwVwS); slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

### 13 Disposal considerations

- **Product:**
  - **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Small quantities can be polymerized with the matching system component(s) and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities.
  - **Waste disposal key number:** 55370
- **European waste catalogue**

11 01 98	other wastes containing dangerous substances
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- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**
  - **ADR/RID-GGVS/E Class:** -
- **Maritime transport IMDG/GGVSea:**
  - **IMDG/GGVSea Class:** -
  - **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
  - **ICAO/IATA Class:** -

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**15 Regulatory information**

- **Designation according to EC guidelines:**  
*The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)*
- **Code letter and hazard designation of product:**  
Xi Irritant
- **Hazard-determining components of labelling:**  
2-hydroxyethyl methacrylate
- **Risk phrases:**  
36/38 Irritating to eyes and skin.  
43 May cause sensitisation by skin contact.
- **Safety phrases:**  
24 Avoid contact with skin.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
28 After contact with skin, wash immediately with plenty of water.  
37 Wear suitable gloves.
- **National regulations**
  - **Water hazard class:**  
Water hazard class 1 (calculated according to VwVwS): slightly hazardous for water.

**16 Other information:**

*These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Relevant R-phrases**  
36/38 Irritating to eyes and skin.  
43 May cause sensitisation by skin contact.
- **Contact:**  
Dr. Tuchscherer Tel.: (49) 6081 959-287  
christian.tuchscherer@heraeus.com
  - \* **Data compared to the previous version altered.**

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