

## Material Safety Data Sheet According to 91/155 EC

Printing date 16.04.2003

Reviewed on 16.04.2003

### 1 Identification of substance

· **Product details**

· **Trade name:** Technovit 4071 powder

· **Application of the substance / the preparation** Resin for metallographic testing

· **Supplier:**

Buehler GmbH  
In der Steele 2, D-40599 Düsseldorf, Germany  
Tel.: +49 211 974100, Fax: +49 211 97410-79

· **Informing department:**

Department of safety:  
Dr. Tuchscherer +49 6081 959-287 (Heraeus Kulzer GmbH & Co. KG)

· **Emergency information:** Call +49 30 19240 (24 hours).

### 2 Composition/Data on components:

· **Chemical characterization**

· **Description:** Product based on methacrylate copolymers

· **Dangerous components:**

CAS: 94-36-0 EINECS: 202-327-6	dibenzoyl peroxide	Xi, E; R 2-36-43	0-5%
CAS: 84-61-7 EINECS: 201-545-9	dicyclohexyl phthalate		0-5%

· **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 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 skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **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.
- **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.

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- **Protective equipment:** No special measures required.

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### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** No special measures required.
- **Measures for cleaning/collecting:** Collect mechanically.
- **Additional information:** No dangerous materials are released.

### 7 Handling and storage

- **Handling**
  - **Information for safe handling:** No special measures required.
  - **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:** None.

### 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:**

#### 94-36-0 dibenzoyl peroxide

OES Long-term value: 5 mg/m<sup>3</sup>

#### 84-61-7 dicyclohexyl phthalate

OES Long-term value: 5 mg/m<sup>3</sup>

- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
  - **General protective and hygienic measures**  
Instantly remove any soiled and impregnated garments.  
Wash hands during breaks and at the end of the work.
  - **Breathing equipment:** Not required.
  - **Protection of hands:**  
If skin contact cannot be avoided, protective gloves are recommended to avoid possible sensitization.  
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.
    - **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:**  
Butyl rubber, BR  
Fluorocarbon rubber (Viton)

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Nitrile rubber, NBR

Natural rubber, NR

Chloroprene rubber, CR

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

PVC or PE gloves

· **Eye protection:** not absolutely necessary· **Body protection:** Light weight protective clothing

### 9 Physical and chemical properties:

#### · General Information

· <b>Form:</b>	Powder
· <b>Colour:</b>	Green
· <b>Smell:</b>	Odourless

#### · Change in condition

· <b>Melting point/Melting range:</b>	Not determined
· <b>Boiling point/Boiling range:</b>	Not determined

· <b>Flash point:</b>	Not applicable
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· <b>Ignition temperature:</b>	400°C
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· <b>Self-inflammability:</b>	Product is not selfigniting.
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· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive powder/air mixtures is possible.
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· <b>Density</b>	Not determined
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#### · Solubility in / Miscibility with

· <b>Water:</b>	Unsoluble
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#### · Solvent content:

· <b>Organic solvents:</b>	0.0 %
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· <b>Solids content:</b>	100.0 %
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### 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

### 11 Toxicological information

#### · Acute toxicity:

##### · Primary irritant effect:

· **on the skin:** No irritant effect.

· **on the eye:** No 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:

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Irritant

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### 12 Ecological information:

- **General notes:** Generally not hazardous for water.

### 13 Disposal considerations

- **Product:**
  - **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**  
11 01 98 other wastes containing dangerous substances
- **Uncleaned packagings:**
  - **Recommendation:** Packaging can be reused or recycled after cleaning.

### 14 Transport information

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

### 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:**  
dibenzoyl peroxide
- **Risk phrases:**  
43 May cause sensitisation by skin contact.
- **Safety phrases:**  
24 Avoid contact with skin.  
37 Wear suitable gloves.

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- **National regulations**

- **Technical instructions (air):**

Class	Share in %
II	0-5

- **Water hazard class:** Generally not 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**

- 2 Risk of explosion by shock, friction, fire or other sources of ignition.

- 36 Irritating to eyes.

- 43 May cause sensitisation by skin contact.

- **Contact:**

Dr. Tuchscherer Tel.: (49) 6081 959-287 (Heraeus Kulzer GmbH & Co. KG)

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- **\* Data compared to the previous version altered.**

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