

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 8100 hardener 1
 - **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:**
 - **CAS No. Designation:**
dibenzoyl peroxide
 - **Identification number(s):**
 - **EINECS Number:** 2023276
 - **EC Number:** 617-008-00-0

- **Chemical characterization**
 - **Description:** -

· **Dangerous components:**

| | | | |
|-------------------|--------------------|------------------|--------|
| CAS: 94-36-0 | dibenzoyl peroxide | Xi, E; R 2-36-43 | 25-50% |
| EINECS: 202-327-6 | | | |

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

3 Hazards identification

· **Hazard designation:**



Xi Irritant
O Oxidising

- **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 7 May cause fire.
R 36 Irritating to eyes.
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. If symptoms persist, consult doctor.
- **After swallowing**
Do not induce vomiting; instantly call for medical help.

(Contd. on page 2)

GB

Material Safety Data Sheet According to 91/155 EEC

Printing date 25.10.2004

Reviewed on 25.10.2004

Trade name: Technovit 8100 hardener 1

Seek immediate medical advice.
Rinse out mouth and then drink plenty of water.

(Contd. of page 1)

5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, 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.
- **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:** Collect mechanically.
- **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:** Protect from heat.
- **Storage**
 - **Requirements to be met by storerooms and containers:** No special requirements.
 - **Information about storage in one common storage facility:**
Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.
 - **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/m³

84-61-7 dicyclohexyl phthalate

OES () Long-term value: 5 mg/m³

- **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.
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.

(Contd. on page 3)

GB

Material Safety Data Sheet According to 91/155 EEC

Printing date 25.10.2004

Reviewed on 25.10.2004

Trade name: Technovit 8100 hardener 1

(Contd. of page 2)

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 trough 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)

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:**

Protective goggles are recommended.

Safety glasses recommended during refilling.

· **Body protection:** Light weight protective clothing

9 Physical and chemical properties:

· **General Information**

| | |
|------------------|-----------|
| · Form: | Powder |
| · Colour: | White |
| · Smell: | Odourless |

· **Change in condition**

| | |
|---------------------------------------|----------------|
| · Melting point/Melting range: | >40°C |
| · Boiling point/Boiling range: | Not determined |

· **Flash point:** 61°C

· **Inflammability (solid, gaseous)** May cause fire.

· **Ignition temperature:** 380.0°C

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

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

· **Steam pressure at 20°C:** 1 hPa

· **Density at 20°C** 1.230 g/cm³

· **Settled apparent density at 20°C** 540 kg/m³

· **Solubility in / Miscibility with**

· **Water:** Insoluble

· **Solvent content:**

| | |
|----------------------------|-------|
| · Organic solvents: | 0.0 % |
| · Water: | 1.5 % |

(Contd. on page 4)

GB

Material Safety Data Sheet According to 91/155 EEC

Printing date 25.10.2004

Reviewed on 25.10.2004

Trade name: Technovit 8100 hardener 1

(Contd. of page 3)

· **Solids content:** 100.0 %

10 Stability and reactivity

- **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Dangerous reactions**
 - Reacts with amines
 - Reacts with reducing agents
 - Reacts with heavy metals
- **Dangerous products of composition:** None

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

| | | |
|------------|----------|-------------------|
| Oral | LD50 | >5000 mg/kg (rat) |
| Inhalative | LC50/4 h | 24.3 mg/l (rat) |

- **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **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.
 - **Waste disposal key number:** 59904

- **European waste catalogue**

11 01 98 other wastes containing dangerous substances

- **Uncleaned packagings:**
 - **Recommendation:** Packaging can be reused or recycled after cleaning.

GB
(Contd. on page 5)

Material Safety Data Sheet According to 91/155 EEC

Printing date 25.10.2004

Reviewed on 25.10.2004

Trade name: Technovit 8100 hardener 1

(Contd. of page 4)

14 Transport information

· **Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**



- **ADR/RID-GGVS/E Class:** 5.2 (P1) Organic peroxides.
- **Kemler Number:** 539
- **UN-Number:** 3106
 - **Packaging group:** -
- **Label:** 5.2
- **Designation of goods:** 3106 ORGANIC PEROXIDE TYPE D, SOLID (dibenzoyl peroxide)

· **Maritime transport IMDG/GGVSea:**



- **IMDG/GGVSea Class:** 5.2
- **UN Number:** 3106
 - **Label:** 5.2
- **Packaging group:** -
- **EMS Number:** F-J,S-R
- **Marine pollutant:** No
- **Correct technical name:** ORGANIC PEROXIDE TYPE D, SOLID (dibenzoyl peroxide)

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 5.2
- **UN/ID Number:** 3106
 - **Label:** 5.2
- **Packaging group:** -
- **Correct technical name:** ORGANIC PEROXIDE TYPE D, SOLID (dibenzoyl peroxide)

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
O Oxidising

· **Hazard-determining components of labelling:**

dibenzoyl peroxide

· **Risk phrases:**

7 May cause fire.
36 Irritating to eyes.
43 May cause sensitisation by skin contact.

(Contd. on page 6)

GB

Material Safety Data Sheet According to 91/155 EEC

Printing date 25.10.2004

Reviewed on 25.10.2004

Trade name: Technovit 8100 hardener 1

(Contd. of page 5)

· **Safety phrases:**

- 3/7 Keep container tightly closed in a cool place.
- 14 Keep away from ... (incompatible materials to be indicated by the manufacturer).
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

· **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**

- 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
christian.tuchscherer@heraeus.com

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

GB