

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.04.2021

Version number 4

Revision: 16.04.2021

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
  - Trade name: **Technovit 2000 Inside Cure**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
  - Application of the substance / the mixture Resin for metallographic testing
- **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
Kulzer GmbH  
Leipziger Straße 2, 63450 Hanau (Germany)  
Tel.: +49 (0)6181 9689-2570 (Wehrheim)
  - **Informing department:** email: [technik.wehrheim@kulzer-dental.com](mailto:technik.wehrheim@kulzer-dental.com)
- **1.4 Emergency telephone number:** Emergency CONTACT (24-Hour-Number) : +49 (0)6132-84463

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
  - **Classification according to Regulation (EC) No 1272/2008**  
Flam. Liq. 2 H225 Highly flammable liquid and vapour.  
Eye Irrit. 2 H319 Causes serious eye irritation.
- **2.2 Label elements**
  - **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
  - **Hazard pictograms**



GHS02 GHS07

- **Signal word** Danger
- **Hazard statements**  
H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.
- **Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
- **2.3 Other hazards -**
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
  - **Description:** -

(Contd. on page 2)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.04.2021

Version number 4

Revision: 16.04.2021

**Trade name: Technovit 2000 Inside Cure**

(Contd. of page 1)

**· Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6 Reg.nr.: 2119457610-43-xxxx	ethanol Flam. Liq. 2, H225 Eye Irrit. 2, H319 Specific concentration limit: Eye Irrit. 2; H319: C ≥ 50 %	>90%
CAS: 13472-08-7 EINECS: 236-740-8 Reg.nr.: 01-2119970183-38-xxxx	2,2'-azobis[2-methylbutyronitrile] Self-react. D, H242 Acute Tox. 4, H302	0-5%

· **Additional information** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
  - **General information** Personal protection for the First Aider.
  - **After inhalation** Supply fresh air; consult doctor in case of symptoms.
  - **After skin contact**  
Instantly wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
  - **After eye contact**  
Rinse opened eye for several minutes under running water. Then consult doctor.  
Remove contact lenses, if present and easy to do. Continue rinsing.
  - **After swallowing**  
In case of persistent symptoms consult doctor.  
Rinse out mouth and then drink plenty of water.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
  - **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
  - **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**  
Can form explosive gas-air mixtures.  
Can be released in case of fire  
Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide (CO)  
Nitrogen oxides (NO<sub>x</sub>)
- **5.3 Advice for firefighters**
  - **Protective equipment:**  
Put on breathing apparatus.  
(EN 133)
  - **Additional information** Cool endangered containers with water spray jet.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.

(Contd. on page 3)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.04.2021

Version number 4

Revision: 16.04.2021

**Trade name: Technovit 2000 Inside Cure**

(Contd. of page 2)

Avoid contact with eyes and skin.

Keep away from ignition sources

Ensure adequate ventilation

· **6.2 Environmental precautions:**

Prevent material from reaching sewage system, holes and cellars.

Do not allow to enter drainage system, surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).

Send for recovery or disposal in suitable containers.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

-

### SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Wear protective equipment. Keep unprotected persons away.

Avoid contact with eyes and skin.

Keep containers tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

· **Handling**

do not mix with

metals

Strong oxidizers

reducing agent

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

Use explosion-proof apparatus / fittings and spark-proof tools.

Do not spray on flames or red-hot objects.

Protect from heat.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and containers:** Store in cool location.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Store in cool, dry conditions in well sealed containers.

· **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Additional information about design of technical systems:** No further data; see item 7.

· **Components with critical values that require monitoring at the workplace:**

**64-17-5 ethanol**

WEL (Great Britain) Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

(Contd. on page 4)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.04.2021

Version number 4

Revision: 16.04.2021

**Trade name: Technovit 2000 Inside Cure**

(Contd. of page 3)

· **DNELs****64-17-5 ethanol**

Oral	ge.pop., l.te, syst.	87 mg/Kg (nd)
Dermal	worker industr., l.te., syst.	343 mg/Kg/d (nd)
	ge.pop., l.te, syst.	206 mg/Kg/d (nd)
Inhalative	worker industr., l.te., syst.	950 mg/m <sup>3</sup> (nd)
	ge.pop., l.te, syst.	114 mg/m <sup>3</sup> (nd)

**13472-08-7 2,2'-azobis[2-methylbutyronitrile]**

Dermal	worker industr., l.te., syst.	970.87 mg/Kg/d (nd)
Inhalative	worker industr., l.te., syst.	0.705 mg/m <sup>3</sup> (nd)

· **PNECs****64-17-5 ethanol**

freshwater	0.96 mg/l (nd)
marine water	0.79 mg/l (nd)
STP	580 mg/l (nd)
sedim., dw, fre.wat.	3.6 mg/Kg (nd)
sedim., dw, mar.wat.	2.9 mg/Kg (nd)
soil,dw	0.63 mg/Kg (nd)

**13472-08-7 2,2'-azobis[2-methylbutyronitrile]**

freshwater	0.052 mg/l (nd)
marine water	0.005 mg/l (nd)
STP	117 mg/l (nd)
sedim., dw, fre.wat.	0.84 mg/Kg (nd)
sedim., dw, mar.wat.	0.084 mg/Kg (nd)
soil,dw	0.14 mg/Kg (nd)

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**· **Personal protective equipment**· **General protective and hygienic measures**

Wash hands during breaks and at the end of the work.

Do not eat or drink while working.

Avoid contact with the eyes and skin.

Keep away from foodstuffs, beverages and food.

· **Breathing equipment:**

Use breathing protection in case of insufficient ventilation.

Filter A/P2.

· **Protection of hands:**

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

chemical protection gloves are suitable, which are tested according to EN 374

· **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.

NBR: acrylonitrile-butadiene rubber (0,11 mm)

(Contd. on page 5)

GB

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 16.04.2021

Version number 4

Revision: 16.04.2021

**Trade name: Technovit 2000 Inside Cure**

(Contd. of page 4)

- **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.  
 >30 min
- **Eye protection:** eye protection (EN 166)
- **Body protection:** Light weight protective clothing
- **Limitation and supervision of exposure into the environment**  
 Do not allow to enter the ground/soil.

### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

- **Form:** Fluid
- **Colour:** Colourless
- **Smell:** Characteristic
- **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 6-7 (20%)

##### · Change in condition

- **Melting point/freezing point:** Not determined
- **Initial boiling point and boiling range:** >35 °C

· **Flash point:** <23 °C

· **Inflammability (solid, gaseous)** Not applicable.

· **Decomposition temperature:** Not determined.

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

· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures is possible.

##### · Critical values for explosion:

- **Lower:** Not determined.
- **Upper:** Not determined.

· **Steam pressure:** Not determined.

· **Density at 20 °C** 0.8028 g/cm<sup>3</sup>

- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.

##### · Solubility in / Miscibility with

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

· **Partition coefficient: n-octanol/water:** Not determined.

##### · Viscosity:

- **dynamic:** Not determined.
- **kinematic:** Not determined.

· **9.2 Other information** No further relevant information available.

GB

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.04.2021

Version number 4

Revision: 16.04.2021

Trade name: **Technovit 2000 Inside Cure**

(Contd. of page 5)

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** Heat, flames and sparks.
- **10.5 Incompatible materials:**
  - metals
  - reducing agent
  - Strong oxidizers
- **10.6 Hazardous decomposition products:** None
  - **Additional information:** -

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
  - **Acute toxicity** Based on available data, the classification criteria are not met.

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

**64-17-5 ethanol**

Oral	LD50	10,470 mg/kg (rat) (OECD 401)
Inhalative	LC50/4 h	124.7 mg/l (rat) (OECD 403)

**13472-08-7 2,2'-azobis[2-methylbutyronitrile]**

Oral	LD50	337 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rat) (OECD 402)

- **Primary irritant effect:**
  - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
  - **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
  - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
    - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
    - **Carcinogenicity** Based on available data, the classification criteria are not met.
    - **Reproductive toxicity** Based on available data, the classification criteria are not met.
  - **STOT-single exposure** Based on available data, the classification criteria are not met.
  - **STOT-repeated exposure** Based on available data, the classification criteria are not met.
  - **Aspiration hazard** Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

- **12.1 Toxicity**

- **Aquatic toxicity:**

**64-17-5 ethanol**

LC50/96h	14,200 mg/l (fish)
ErC50 / 72 h	275 mg/l (algae) (OECD 201)
EC50/96h	129,000 mg/L (fish)
LC50/48h	5,012 mg/L (daphnia)
ErC10/72h	11.5 mg/L (algae) (OECD 201)

(Contd. on page 7)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.04.2021

Version number 4

Revision: 16.04.2021

**Trade name: Technovit 2000 Inside Cure**

(Contd. of page 6)

NOEC 5d	250 mg/L (fish) (OECD 212)
---------	----------------------------

NOEC 10d	9.6 mg/L (daphnia)
----------	--------------------

**13472-08-7 2,2'-azobis[2-methylbutyronitrile]**

EC50/48h	51.9 mg/l (daphnia) (OECD 202)
----------	--------------------------------

LC50/96h	580 mg/l (fish) (OECD 203)
----------	----------------------------

ErC50 / 72 h	67 mg/l (algae) (OECD 201)
--------------	----------------------------

NOEC / 72h	12.5 mg/l (algae) (OECD 201)
------------	------------------------------

**12.2 Persistence and degradability**

**64-17-5 ethanol**

Biodegradation	84 % /20d (nd)
----------------	----------------

**13472-08-7 2,2'-azobis[2-methylbutyronitrile]**

Biodegradation	7 % /28d (nd) (OECD 301D)
----------------	---------------------------

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:** Avoid transfer into the environment.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

**SECTION 13: Disposal considerations**

· **13.1 Waste treatment methods**

· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Disposal must be made according to official regulations.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN1170

· **14.2 UN proper shipping name**

· **ADR**

1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

· **IMDG**

ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

· **IATA**

ETHANOL

(Contd. on page 8)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.04.2021

Version number 4

Revision: 16.04.2021

**Trade name: Technovit 2000 Inside Cure**

(Contd. of page 7)

**14.3 Transport hazard class(es)**

**ADR**



· **Class** 3 (F1) Flammable liquids.  
· **Label** 3

**IMDG, IATA**



· **Class** 3 Flammable liquids.  
· **Label** 3

**14.4 Packing group**

· **ADR, IMDG, IATA** II

**14.5 Environmental hazards:**

· **Marine pollutant:** No

**14.6 Special precautions for user**

Warning: Flammable liquids.

· **Kemler Number:** 33  
· **EMS Number:** F-E,S-D  
· **Stowage Category** A

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

**Transport/Additional information:** -

**ADR**

· **Limited quantities (LQ)** 1L  
· **Excepted quantities (EQ)** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml  
· **Transport category** 2  
· **Tunnel restriction code** D/E

**IMDG**

· **Limited quantities (LQ)** 1L  
· **Excepted quantities (EQ)** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

**UN "Model Regulation":**

UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II

GB

(Contd. on page 9)



**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 16.04.2021

Version number 4

Revision: 16.04.2021

**Trade name: Technovit 2000 Inside Cure**

(Contd. of page 8)

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Directive 2012/18/EU**
    - **Named dangerous substances - ANNEX I** None of the ingredients is listed.
    - **Seveso category P5c** FLAMMABLE LIQUIDS
    - **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
    - **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
  - **National regulations**
    - **Information about limitation of use:**  
Employment restrictions concerning young persons must be observed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 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 phrases**
  - H225 Highly flammable liquid and vapour.
  - H242 Heating may cause a fire.
  - H302 Harmful if swallowed.
  - H319 Causes serious eye irritation.
- **Abbreviations and acronyms:**
  - ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - DNEL: Derived No-Effect Level (REACH)
  - PNEC: Predicted No-Effect Concentration (REACH)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Self-react. D: Self-reactive substances and mixtures – Type C/D
  - Acute Tox. 4: Acute toxicity – Category 4
  - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- **Sources**
  - (EC) 1272/2008: classification, labelling and packaging of substances and mixtures
  - (EC) 1907/2006: REACH
  - ADR/RID/ADN - IMDG - IATA: transport of dangerous goods by road, rail, inland waterway, with maritime vessels and for the air transport
- **\* Data compared to the previous version altered.**

GB