

Printing date 16.03.2021 Version number 7 Revision: 16.03.2021

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

- · 1.1 Product identifier
  - · Trade name: Technovit 3040 Powder
- · 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
- 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

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- · 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



GHS09

- · Signal word Void
- · Hazard statements

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information:

Contains dibenzoyl peroxide. May produce an allergic reaction.

- · 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: -

•	Danger	ous (	comp	onents:
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CAS: 94-36-0 dibenzoyl peroxide EINECS: 202-327-6

Self-react. B, H241; Org. Perox. B, H241 Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10) Eve Irrit. 2, H319; Skin Sens. 1, H317

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≥0.25-<1%



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• 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 No special measures required.
  - 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 or rash occurs: Get medical advice/attention.

· After eye contact

Rinse opened eye for several minutes under running water. Then consult doctor.

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

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

In case of fire the following can be released:

Carbon monoxide (CO)

Carbon dioxide (CO2)

- · 5.3 Advice for firefighters
  - · Protective equipment: Wear self-contained breathing apparatus.
  - · Additional information -

#### SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes and skin.

Wear protective equipment. Keep unprotected persons away.

Avoid causing dust.

Keep away from ignition sources

6.2 Environmental precautions:

If material reaches soil inform authorities responsible for such cases.

Prevent material from reaching sewage system, holes and cellars.

Do not allow to enter the ground/soil.

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

Damp down dust with water spray jet.

6.3 Methods and material for containment and cleaning up:

Collect mechanically.

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.

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## SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

Any deposit of dust which cannot be avoided must be removed regularly.

Avoid contact with eyes and skin.

Provide suction extractors if dust is formed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

· Information about protection against explosions and fires:

Dust can combine with air to form an explosive mixture.

Protect against electrostatic charges.

Keep ignition sources away - Do not smoke.

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

- · Storage
  - · Requirements to be met by storerooms and containers:

Store in cool, dry place in tightly closed containers.

- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · 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:

## 94-36-0 dibenzoyl peroxide

WEL (Great Britain) Long-term value: 5 mg/m³

· DNELs

#### 94-36-0 dibenzoyl peroxide

Oral	ge.pop., l.te, syst.	2 mg/Kg (nd)
	worker industr., I.te., syst.	
Inhalative	worker industr., l.te., syst.	39 mg/m3 (nd)

#### · PNECs

#### 94-36-0 dibenzoyl peroxide

freshwater	0.00002 mg/l (nd)
marine water	0.000002 mg/l (nd)
STP	0.35 ma/l (nd)
sedim., dw, fre.wat. sedim., dw, mar.wat. soil,dw	0.013 mg/Kg (nd)
sedim., dw, mar.wat.	0.001 mg/Kg (nd)
soil,dw	0.003 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.

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· Breathing equipment:

Use a mask with particle filter in case of dust generation. Filter 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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Check protective gloves prior to each use for their proper condition.

recommended

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)

· 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.

>30 min

· Eye protection: Safety glasses

· Body protection: Light weight protective clothing

## SECTION 9: Physical and chemical properties

9.1 Information on basic physical and General Information Appearance:	chemical properties
· Form:	Powder
· Colour:	Different according to colour
· Smell:	Odourless
· Odour threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition · Melting point/freezing point: · Initial boiling point and boiling i	Not determined range: Not determined
· Flash point:	Not applicable
· Inflammability (solid, gaseous)	Not determined.
· Decomposition temperature:	Not determined.
· Self-inflammability:	Product is not selfigniting.
· Explosive properties:	Product is not explosive.
· Critical values for explosion: · Lower: · Upper:	Not determined. Not determined.
· Steam pressure:	Not applicable.
Density at 20 °C Relative density Vapour density	1.20052 g/cm³ Not determined. Not applicable.

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Not applicable. · Evaporation rate

· Solubility in / Miscibility with

· Water: Insoluble

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

· Viscosity:

· dynamic: Not applicable. · kinematic: Not applicable.

No further relevant information available. · 9.2 Other information

### 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

Risk of dust explosion if enriched with fine dust in presence of air

- · 10.4 Conditions to avoid Heat, flames and sparks.
- · 10.5 Incompatible materials: 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:

#### 94-36-0 dibenzoyl peroxide

LD0 >2,000 mg/kg (mouse) (OECD 401)

Inhalative LC0/4h 24.3 ppm (rat) (OECD 403)

- · Primary irritant effect:
  - Skin corrosion/irritation Based on available data, the classification criteria are not met.
  - Serious eye damage/irritation

Based on available data, the classification criteria are not met.

· Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

- · Additional toxicological information:

  - CMR effects (carcinogenity, 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.



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## **SECTION 12: Ecological information**

#### · 12.1 Toxicity

Aquatic toxicity:

94-36-0 dibe	nzoyl peroxide
EC50/72h	0.042 mg/l (algae) (OECD 201)
EC50/48h	0.11 mg/l (daphnia) (OECD 202)
LC50/96h	0.06 mg/l (fish) (OECD 203)
ErC50 / 72 h	0.071 mg/l (algae) (OECD 201)
NOEC / 72h	0.02 mg/l (algae) (OECD 201)
NOEC / 96h	0.032 mg/l (fish) (OECD 203)
NOEC / 48h	0.076 mg/l (daphnia) (OECD 202)
ErC10	0.001 mg/L /21d (daphnia) (OECD 211)

#### 12.2 Persistence and degradability

#### 94-36-0 dibenzoyl peroxide

Biodegradation 71 % /28d (nd) (OECD 301D)

- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
  - · Ecotoxical effects:
    - · Remark: Harmful to aquatic organisms
  - Additional ecological information:
    - · General notes:

Avoid transfer into the environment.

Harmful to aquatic organisms

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into soil.

- · 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

Small quantities can be polymerized with the matching system component(s) and the cured solid material can be disposed of with the regular garbage.

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.

Non contaminated packagings can be used for recycling.

GB



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UN3077  3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoy peroxide) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoy peroxide), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoy peroxide)  9 (M7) Miscellaneous dangerous
SUBSTANCE, SOLID, N.O.S. (dibenzoy peroxide) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoy peroxide), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoy peroxide)
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoy peroxide), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoy peroxide)
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzo) peroxide)
9 (M7) Miscellaneous dangerou
substances and articles.
<ul><li>9 Miscellaneous dangerous substance and articles.</li><li>9</li></ul>
9
III
No Symbol (fish and tree)
Symbol (fish and tree) Symbol (fish and tree)
Warning: Miscellaneous dangerous substance and articles.
90
F-A,S-F A
SW23 When transported in BK3 bul container, see 7.6.2.12 and 7.7.3.9.
<b>of</b> Not applicable.
-



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· ADR

Limited quantities (LQ)

Excepted quantities (ÉQ)

5 kg Code: E1

Maximum net quantity per inner

packaging: 30 g

Maximum net quantity per outer

packaging: 1000 g

· Transport category Tunnel restriction code

· Limited quantities (LQ) Excepted quantities (ÉQ) 5 kg Code: E1

Maximum net quantity per inner

packaging: 30 g

. Maximum net quantity per outer

packaging: 1000 g

UN "Model Regulation":

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DIBENZOYL

PEROXIDE), 9, III

## 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

Hazardous to the Aquatic Environment

E2 Hazardous to the Aquatic Environment

- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · National regulations
  - · Information about limitation of use:

Employment restrictions concerning young persons must be observed.

Employment restrictions concerning pregnant and lactating women 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

H241 Heating may cause a fire or explosion.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

#### 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

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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

PB1: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Self-react. B: Self-reactive substances and mixtures – Type B
Org. Perox. B: Organic peroxides – Type B
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
\*\*Pote compared to the provious version of the sequence of the sequence

\* Data compared to the previous version altered.