



1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name: SILIKAL POWDER HARDENER**
- **Application of the substance / the preparation:** Catalyst
- **Manufacturer/Supplier:**
Silikal GmbH & Co. KG
Ostring 23
D-63533 Mainhausen
Tel.: +49-6182/9235-0
Fax.: +49-6182/9235-40
e-mail: mail@silikal.de
- **Further information obtainable from:** Abteilung Umweltschutz

2 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 94-36-0 EINECS: 202-327-6	dibenzoyl peroxide	 Xi,  E; R 2-36-43	50.0%
CAS: 84-61-7 EINECS: 201-545-9	dicyclohexyl phthalate		50.0%

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

3 Hazards identification

· Hazard description:



Xi Irritant
O Oxidising

· Information concerning particular hazards for human 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 according to the latest editions of the EU-lists, and extended by company and literature data.

4 First-aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air and to be sure call for a doctor.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

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5 Fire-fighting measures

- **Suitable extinguishing agents:**
Foam
Sand
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Hydrocarbons
Carbon monoxide and carbon dioxide
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **Person-related safety precautions:**
Ensure adequate ventilation
Wear protective clothing.
Keep away from ignition sources.
Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Use explosion-proof apparatus / fittings and spark-proof tools.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Store in cool, dry conditions in well sealed receptacles.
Do not allow to enter sewers/ surface or ground water.
- **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:**
Store receptacle in a well ventilated area.
Protect from heat and direct sunlight.
- **Maximum storage temperature:** 25°C

8 Exposure controls/personal protection

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

- **Ingredients with limit 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

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- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
Filter AX
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
Butyl rubber, BR
Nitrile rubber, NBR
- **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.
- **Eye protection:**
Face protection



Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

· General Information

Form:	Powder
Colour:	White
Odour:	Weak, characteristic

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	nicht bestimmt

· Flash point:	nicht anwendbar
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· Flammability (solid, gaseous):	May cause fire.
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· Decomposition temperature:	60°C
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· Self-igniting:	Product is not selfigniting.
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· Danger of explosion:	Product does not present an explosion hazard.
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· Vapour pressure at 20°C:	nicht bestimmt
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- | | |
|--|------------------------|
| · Density at 20°C: | 1.12 g/cm ³ |
| · Bulk density: | 0,56 g/cm ³ |
| · Solubility in / Miscibility with water: | Insoluble. |

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
To avoid thermal decomposition do not overheat.
Keep away from heat and direct sunlight.
No decomposition if used and stored according to specifications.
- **Decomposition starts at:** 60 °C
- **Materials to be avoided:**
Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.
Store away from oxidizing agents.
- **Dangerous reactions:** Visible decomposition with spontaneous ignition on heating.
- **Dangerous decomposition products:**
Hydrocarbons
Carbon monoxide and carbon dioxide
- **Additional information:** Do not allow to enter sewers/ surface or ground water.

11 Toxicological information

- **Acute toxicity:**
 - **LD/LC50 values relevant for classification:**
- | | | |
|-----------------------------------|-----------|-------------------|
| 94-36-0 dibenzoyl peroxide | | |
| Oral | LD50 | >5000 mg/kg (rat) |
| Inhalative | LC50 (4h) | >24.3 mg/l (rat) |
- **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** Irritating effect.
 - **Sensitization:** Sensitization possible through skin contact.
 - **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

12 Ecological information

- **Ecotoxicological effects:**
 - **Acquatic toxicity:**
- | | |
|-----------------------------------|---------------|
| 94-36-0 dibenzoyl peroxide | |
| LC50 (96h) | 2 mg/l (fish) |
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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13 Disposal considerations

Product:

Recommendation

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

Must be specially treated adhering to official regulations.

European waste catalogue

16 09 03	peroxides, for example hydrogen peroxide
15 01 02	plastic packaging

Uncleaned packaging:

Recommendation:

Packaging may be reused or recycled after cleaning.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

Disposal must be made according to official regulations.

14 Transport information

Land transport ADR/RID (cross-border)

ADR/RID class: 5.2 Organic peroxides.

Danger code (Kemler): n.a.

UN-Number: 3106

Description of goods: 3106 ORGANIC PEROXIDE TYPE D, SOLID (dibenzoyl peroxide)

Maritime transport IMDG:

IMDG Class: 5.2

UN Number: 3106

EMS Number: F-J,S-R

Marine pollutant: No

Proper shipping name: ORGANIC PEROXIDE TYPE D, SOLID (dibenzoyl peroxide)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 5.2

UN/ID Number: 3106

Proper shipping name: ORGANIC PEROXIDE TYPE D, SOLID (dibenzoyl peroxide)

15 Regulatory information

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

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.

Safety phrases:

3/7 Keep container tightly closed in a cool place.

14 Keep away from reducing agents, heavy metal compounds, acids and alkalis.

22 Do not breathe dust.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

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· **National regulations:**· **Technical instructions (air):**

Class	Share in %
II	25-50

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information

This information is based on our present knowledge. However, this 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.

· **Department issuing MSDS:** Abteilung Umweltschutz· **Contact:** Herr Engel· *** Data compared to the previous version altered.**

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