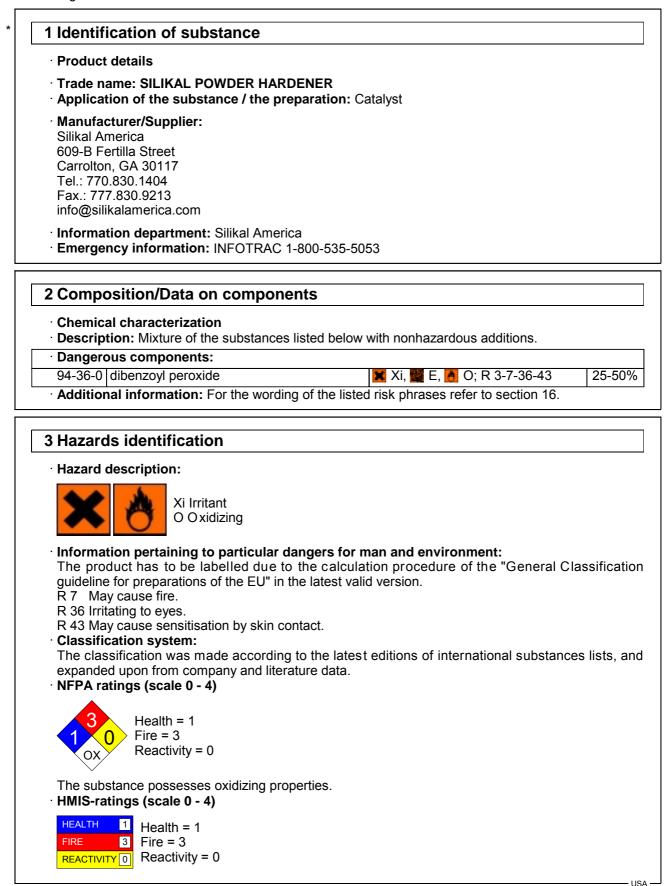
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Material Safety Data Sheet

acc. to ISO/DIS 11014

Reviewed on 06/14/2013



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Reviewed on 06/14/2013

Trade name: SILIKAL POWDER HARDENER

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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 copious amounts of water and provide fresh air. Immediately call a doctor.

5 Fire fighting measures

• Suitable extinguishing agents:

Foam

Sand

CO2, extinguishing 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 material, 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 respiatory 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 protection against explosions and fires: 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.

(Contd. on page 3)

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(Contd. of page 2)

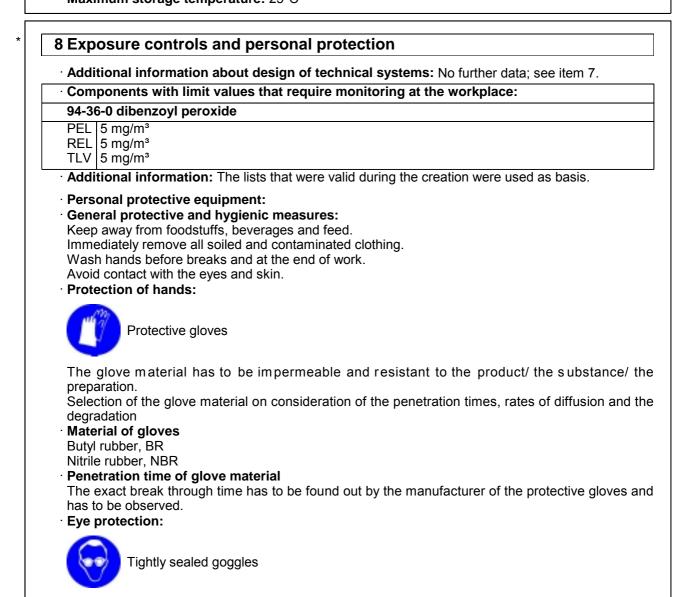
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Protect from heat and direct sunlight. • Maximum storage temperature: 25°C



· Body protection: Protective work clothing

General Information		
Form:	Powder	
Color:	White	
Odor:	Weak, characteristic	
Change in condition		
Boiling point/Boiling range:	400°C (752°F)	
Flash point:	180°C (356°F)	
· Flammability (solid, gaseous):	May cause fire.	

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· Ignition temperature:	
Decomposition temperate	ure: 60°C
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air, vapor mixtures are possible.
· Vapor pressure at 20°C (68	° F): 1 hPa (1 mm Hg)
· Density at 20°C (68°F):	1.24 g/cm³ (10.348 lbs/gal)
· Bulk density:	0,56 g/cm ³
 Solubility in / Miscibility wi Water: 	th Insoluble.
 Solvent content: Organic solvents: 	0.0 %
Solids content:	100.0 %

10 Stability and reactivity

 Thermal decomposition I 	conditions to be avoided:
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To avoid thermal decomposition do not overheat.

Keep away from heat and direct sunlight.

No decomposition if used and stored according to specifications.

- Decomposition will begin at: 60 °C
- Materials to be avoided: Do not store together with reducing agents, heavy-metal compounds, acids and alkalis. Reacts with alkali, amines and strong acids.
- · Dangerous reactions: Visible decomposition with spontaneous ignition on heating.
- · Dangerous products of decomposition:

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 that are 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:		

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12 Ecological information

· Ecotoxical effects:

Acquatic toxicity:

94-36-0 dibenzoyl peroxide

LC50 (96h) 2 mg/l (fish)

· Additional ecological information:

· General notes:

Water hazard class 1 (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.

*

13 Disposal considerations

· Product:

· Recommendation:

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

Must be specially treated adhering to official regulations.

· Uncleaned packagings:

Recommendation:

Packaging can be reused or recycled after cleaning.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product. Disposal must be made according to official regulations.

· DOT regulations:	
· Hazard class:	5.2
 Identification number: 	UN3106
 Packing group: 	11
	name): ORGANIC PEROXIDE TYPE D, SOLID (dibenzoy peroxide)
· Land transport ADR/RID (cross-b	order):
ADR/RID class:	5.2 Organic peroxides
 Danger code (Kemler): 	-
· UN-Number:	3106
· Description of goods:	3106 O RGANIC PEROXIDE TYPE D, SOLII (dibenzoyl peroxide)
· Maritime transport IMDG:	
· IMDG Class:	5.2
· UN Number:	3106
 Packaging group: 	II
· EMS Number:	F-J,S-R
 Marine pollutant: 	No
· Propper shipping name:	ORGANIC PEROXIDE TYPE D, SOLID (dibenzoy peroxide)
· Air transport ICAO-TI and IATA-D	GR:
· ICAO/IATA Class:	5.2
· UN/ID Number:	3106
 Packaging group: 	ll

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Trade name: SILIKAL POWDER HARDENER

· Propper shipping name:

ORGANIC PEROXIDE TYPE D, SOLID (dibenzoyl peroxide)

• ;	Sara
	Section 355 (extremely hazardous substances):
	None of the ingredient is listed.
• ;	Section 313 (Specific toxic chemical listings):
ļ	94-36-0 dibenzoyl peroxide
	TSCA (Toxic Substances Control Act):
1	All ingredients are listed.
•	Proposition 65
	Chemicals known to cause cancer:
	None of the ingredients is listed.
	Chemicals known to cause reproductive toxicity for females:
	None of the ingredients is listed.
• (Chemicals known to cause reproductive toxicity for males:
	None of the ingredients is listed.
• (Chemicals known to cause developmental toxicity:
	None of the ingredients is listed.
• (Cancerogenity categories
	EPA (Environmental Protection Agency)
	None of the ingredients is listed.
	IARC (International Agency for Research on Cancer)
ļ	94-36-0 dibenzoyl peroxide
•	NTP (National Toxicology Program)
	None of the ingredients is listed.
	TLV (Threshold Limit Value established by ACGIH)
	94-36-0 dibenzoyl peroxide
•	MAK (German Maximum Workplace Concentration)
	None of the ingredients is listed.
•	NIOSH-Ca (National Institute for Occupational Safety and Health)
	None of the ingredients is listed.
. (OSHA-Ca (Occupational Safety & Health Administration)
	None of the ingredients is listed.
	AGW (German Workplace Threshold Value)
	None of the ingredients is listed.
	Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous mater
	Hazard symbols: Xi Irritant O O xidizing

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Trade name: SILIKAL POWDER HARDENER

Ri	sk p	hra	ises:
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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.
- · National regulations:

• Technical instructions (air):

Class	Share in %
=	25-50

· Water hazard 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.

· Department issuing MSDS: Silikal America

** Data compared to the previous version altered.

USA -