

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.08.2018

Version number 4

Revision: 22.06.2017

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

1.1 Product identifier

Trade name: **Hardener paste for Colour Bond, 6 min**

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

Hardening agent/ Curing agent

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
Lechstrasse 28
D 90451 Nürnberg

Tel. +49(0)911-642960
Fax. +49(0)911-644456
e-mail info@akemi.de

Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.
+44 (171) 635 91 91
National Poison Inform. Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS09 environment

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



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Wash with plenty of water.
If eye irritation persists: Get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.

Storage: Store in a well-ventilated place. Keep cool.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS07 GHS09

Signal word

Warning

Hazard-determining components of labelling:

dibenzoyl peroxide

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- Hazard statements H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
- Precautionary statements
 - P101 If medical advice is needed, have product container or label at hand.
 - P102 Keep out of reach of children.
 - P103 Read label before use.
 - P261 Avoid breathing vapours.
 - P264 Wash thoroughly after handling.
 - P272 Contaminated work clothing should not be allowed out of the workplace.
 - P273 Avoid release to the environment.
 - P280 Wear protective gloves / eye protection / face protection.
 - P302+P352 IF ON SKIN: Wash with plenty of water.
 - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P362+P364 Take off contaminated clothing and wash it before reuse.
 - P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 - P321 Specific treatment (see on this label).
 - P337+P313 If eye irritation persists: Get medical advice/attention.
 - P391 Collect spillage.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **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: Mixture of substances listed below with nonhazardous additions.

- Dangerous components:

CAS: 94-36-0	dibenzoyl peroxide	12.5-25%
EINECS: 202-327-6	  Org. Perox. B, H241	
Index number: 617-008-00-0	  Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
Reg.nr.: 01-2119511472-50	  Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 9038-95-3	Polyalkylen glycol monobutylether	1-5%
	 Acute Tox. 4, H302; Eye Irrit. 2, H319	

- 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: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- 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: If symptoms persist consult doctor.

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- **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, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- Protective equipment: Do not inhale explosion gases or combustion gases.
- Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **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 disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Prevent formation of aerosols.
Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.
- Information about fire - and explosion protection: Protect from heat.
Prevent impact and friction.
- **7.2 Conditions for safe storage, including any incompatibilities**
- Storage:
- Requirements to be met by storerooms and receptacles: 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: Keep container tightly sealed.

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Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
Protect from contamination.
Store in a cool place.
No further relevant information available.

7.3 Specific end use(s)**SECTION 8: Exposure controls/personal protection**

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

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

94-36-0 dibenzoyl peroxideWEL Long-term value: 5 mg/m³**DNELs****94-36-0 dibenzoyl peroxide**

Oral	DNEL (Langzeit-wiederholt)	2 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	13.3 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	39 mg/m ³ Air (ARB)

PNECs**94-36-0 dibenzoyl peroxide**

PNEC (wässrig)	0.35 mg/l (KA)
	0.000002 mg/l (MW)
	0.00002 mg/l (SW)
	0.000602 mg/l (WAS)
PNEC (fest)	0.0025 mg/kg Trockengew (BO)
	0.00127 mg/kg Trockengew (MWS)
	0.0127 mg/kg Trockengew (SWS)

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

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:

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.
Filter A/P2

Protection of hands:



Protective gloves

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
The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove

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type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.

This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).

· 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.

Butyl rubber, BR
Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
Neoprene gloves

· 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.

· Eye protection:



Tightly sealed goggles

· Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties

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

· General Information

· Appearance:

<u>Form:</u>	Pasty
<u>Colour:</u>	Whitish
<u>Odour:</u>	Specific type

· Change in condition

<u>Melting point/freezing point:</u>	Undetermined.
<u>Initial boiling point and boiling range:</u>	Undetermined.

· Flash point: Not applicable.

· Decomposition temperature: 50 °C (SADT)

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product does not present an explosion hazard.

· Vapour pressure at 20 °C: 1 hPa

· Density at 20 °C: 1.3 g/cm³

· Solubility in / Miscibility with water: Not miscible or difficult to mix.

· Viscosity:

<u>Dynamic:</u>	Not determined. Not applicable.
<u>Kinematic:</u>	Not determined. Not applicable.

· Solvent content:

<u>Organic solvents:</u>	0.0 %
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· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Self accelerating decomposition above > + 60 °C.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Rapid decomposition by dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavy-metal compounds and amines).
- **10.6 Hazardous decomposition products:** Hydrocarbons, carbondioxide and -monoxid.

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 relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	20,000 mg/kg
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94-36-0 dibenzoyl peroxide

Oral	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	>24.3 mg/l (rat)

- 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 May cause an allergic skin reaction.
- 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:

94-36-0 dibenzoyl peroxide

EC50	35 mg/l (bacteria)
LC50	>1,000 mg/l (Eisenia fetida (Regenwürmer))
EC50/48h	0.11 mg/l (daphnia magna)
ErC50/72h	0.0711 mg/l (Pseudokirchneriella subcapitata)
EC10	0.001 mg/l (daphnia magna)
EC50/48h	0.11 mg/l (daphnia magna)
EC50/72h	0.0711 mg/l (Pseudokirchneriella subcapitata)

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LC50/96h	0.0602 mg/l (Oncorhynchus mykiss) 2 mg/l (poecilia reticulata)
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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- **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 together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN3077
- **14.2 UN proper shipping name**
- **ADR** 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)
- **14.3 Transport hazard class(es)**
- **ADR**
- 
- **Class** 9 (M7) Miscellaneous dangerous substances and articles.
- **Label** 9
- **IMDG, IATA**
- 
- **Class** 9 Miscellaneous dangerous substances and articles.
- **Label** 9

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<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	III
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA): 	Product contains environmentally hazardous substances: Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category · Stowage Code 	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F A SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Excepted quantities (EQ) 	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
<ul style="list-style-type: none"> · Transport category 	3
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
<ul style="list-style-type: none"> · 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	
· <u>Named dangerous substances - ANNEX I</u>	None of the ingredients is listed.
· <u>Seveso category</u>	E2 Hazardous to the Aquatic Environment
· <u>Qualifying quantity (tonnes) for the application of lower-tier requirements</u>	200 t
· <u>Qualifying quantity (tonnes) for the application of upper-tier requirements</u>	500 t
· <u>National regulations:</u>	
· <u>Waterhazard class:</u>	Water hazard class 1 (Self-assessment): slightly hazardous for water.
· <u>VOC EU</u>	0.0 g/l
· 15.2 Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.

SECTION 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.

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<ul style="list-style-type: none"> · <u>Relevant phrases</u> · <u>Department issuing SDS:</u> · <u>Contact:</u> · <u>Abbreviations and acronyms:</u> 	<p>H241 Heating may cause a fire or explosion. H302 Harmful if swallowed. 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.</p> <p>Laboratory Dieter Zimmermann Elke Hake Fon ++49 (0)911 64296-59 @mail E.Hake@akemi.de</p> <p>ADR: Accord européen sur le transport 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 Org. Perox. B: Organic peroxides – Type B Acute Tox. 4: Acute toxicity – Category 4 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</p>
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