

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 03.09.2024

Version number 10 (replaces version 9)

Revision: 03.09.2024

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

1.1 Product identifier

Trade name: **Hardenerpaste 10:1 for Colour Bond, MS 76 und Monument Filler**
 UFI: RSW2-50AP-200E-1GEA

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 Tel. +49(0)911-642960
 Lechstrasse 28 Fax. +49(0)911-644456
 D 90451 Nürnberg 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.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Eye Irrit. 2 H319 Causes serious eye irritation.

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

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

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

Hazard statements

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P261

Avoid breathing vapours.

P273

Avoid release to the environment.

P280

Wear protective gloves / eye protection.

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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.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 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.

Determination of endocrine-disrupting properties

For information on endocrine disrupting properties see section 11.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 94-36-0 EINECS: 202-327-6 Index number: 617-008-00-0 Reg.nr.: 01-2119511472-50	dibenzoyl peroxide Org. Perox. B, H241 Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10) Eye Irrit. 2, H319; Skin Sens. 1, H317	12.5-25%
CAS: 9038-95-3	Polyalkylen glycol monobutylether Acute Tox. 4, H302; Eye Irrit. 2, H319	1-5%

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: 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.

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.

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· 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.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
Protect from contamination.
Store in a cool place.
- Storage class: 11
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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· DNELs

94-36-0 dibenzoyl peroxide

Oral	DNEL (Langzeit-wiederholt)	1.65 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)
		3.84 mg/m ³ Air (BEV)

· 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**· Appropriate engineering controls No further data; see section 7.· Individual protection measures, such as 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· Hand protection

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 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

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- | | |
|--|--|
| <ul style="list-style-type: none"> · <u>Penetration time of glove material</u> · <u>Eye/face protection</u> · <u>Body protection:</u> | <p>to the application.
Butyl rubber, BR
Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
Neoprene gloves</p> <p>The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.</p> <div style="text-align: center;">  </div> <p>Tightly sealed goggles</p> <p>Protective work clothing</p> |
|--|--|

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

- | | |
|---|-----------------------------------|
| · <u>General Information</u> | |
| · <u>Colour:</u> | Whitish |
| · <u>Odour:</u> | Specific type |
| · <u>Melting point/freezing point:</u> | Undetermined. |
| · <u>Boiling point or initial boiling point and boiling range</u> | Undetermined. |
| · <u>Flash point:</u> | Not applicable. |
| · <u>Decomposition temperature:</u> | 50 °C (SADT) |
| · <u>pH</u> | Not applicable. |
| · <u>Viscosity:</u> | |
| · <u>Kinematic viscosity</u> | Not determined. |
| · <u>Dynamic:</u> | Not applicable. |
| · <u>Solubility</u> | |
| · <u>water:</u> | Not miscible or difficult to mix. |
| · <u>Vapour pressure at 20 °C:</u> | 1 hPa |
| · <u>Density and/or relative density</u> | |
| · <u>Density at 20 °C:</u> | 1.31 g/cm ³ |
| · <u>Particle characteristics</u> | |

See section 3.

· 9.2 Other information

- | | |
|--|---|
| · <u>Appearance:</u> | |
| · <u>Form:</u> | Pasty |
| · <u>Important information on protection of health and environment, and on safety.</u> | |
| · <u>Ignition temperature:</u> | Product is not selfigniting. |
| · <u>Explosive properties:</u> | Product does not present an explosion hazard. |
| · <u>Solvent content:</u> | |
| · <u>Water:</u> | 10.0 % |
| · <u>Solids content:</u> | 97.5 % |

- | | |
|---|------|
| · <u>Information with regard to physical hazard classes</u> | |
| · <u>Explosives</u> | Void |
| · <u>Flammable gases</u> | Void |
| · <u>Aerosols</u> | Void |
| · <u>Oxidising gases</u> | Void |
| · <u>Gases under pressure</u> | Void |
| · <u>Flammable liquids</u> | Void |
| · <u>Flammable solids</u> | Void |

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· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

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 at 50°C (SADT)
- **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 hazard classes as defined in Regulation (EC) No 1272/2008**
- Acute toxicity Based on available data, the classification criteria are not met.

· <u>LD/LC50 values relevant for classification:</u>		
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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)
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Inhalative	LC50/4 h	>24.3 mg/l (rat)
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9038-95-3 Polyalkylen glycol monobutylether

Oral	LD50	500 mg/kg (ATE)
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- 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.
- 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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11.2 Information on other hazards

· Endocrine disrupting properties

None of the ingredients is listed.

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) (OECD 202)
ErC50/72h	0.0711 mg/l (Pseudokirchneriella subcapitata)
EC10	0.001 mg/l (daphnia magna) (OECD 211)
EC50/48h	0.11 mg/l (daphnia magna)
EC50/72h	0.0711 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
LC50/96h	0.0602 mg/l (Oncorhynchus mykiss) (OECD 203)
	2 mg/l (poecilia reticulata)

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.

12.5 Results of PBT and vPvB assessment

· PBT:

Not applicable.

· vPvB:

Not applicable.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

· 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 2 (German Regulation) (Self-assessment): hazardous for water

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 or ID number**

· ADR, IMDG, IATA

UN3077

14.2 UN proper shipping name

· ADR

3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)

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<ul style="list-style-type: none"> · <u>IMDG</u> · <u>IATA</u> 	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)
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· 14.3 Transport hazard class(es)· ADR

<ul style="list-style-type: none"> · <u>Class</u> · <u>Label</u> 	9 (M7) Miscellaneous dangerous substances and articles. 9
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· IMDG, IATA

<ul style="list-style-type: none"> · <u>Class</u> · <u>Label</u> 	9 Miscellaneous dangerous substances and articles. 9
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· 14.4 Packing group

<u>ADR, IMDG, IATA</u>	III
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· 14.5 Environmental hazards:

· <u>Marine pollutant:</u>	Symbol (fish and tree)
· <u>Special marking (ADR):</u>	Symbol (fish and tree)
· <u>Special marking (IATA):</u>	Symbol (fish and tree)

· 14.6 Special precautions for user

· <u>Hazard identification number (Kemler code):</u>	Warning: Miscellaneous dangerous substances and articles. 90
· <u>EMS Number:</u>	F-A,S-F
· <u>Stowage Category</u>	A
· <u>Stowage Code</u>	SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.

· 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

· Transport/Additional information:

<ul style="list-style-type: none"> · <u>ADR</u> · <u>Limited quantities (LQ)</u> · <u>Excepted quantities (EQ)</u> 	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"> · <u>Transport category</u> · <u>Tunnel restriction code</u> 	3 (-)

<ul style="list-style-type: none"> · <u>IMDG</u> · <u>Limited quantities (LQ)</u> · <u>Excepted quantities (EQ)</u> 	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
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<u>UN "Model Regulation":</u>	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DIBENZOYL PEROXIDE), 9, III
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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
 - Seveso category
 - Qualifying quantity (tonnes) for the application of lower-tier requirements
 - Qualifying quantity (tonnes) for the application of upper-tier requirements
- | | |
|---|--|
| None of the ingredients is listed. | |
| E1 Hazardous to the Aquatic Environment | |
| 100 t | |
| 200 t | |

· <u>DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II</u>

None of the ingredients is listed.

· <u>REGULATION (EU) 2019/1148</u>

· <u>Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))</u>

None of the ingredients is listed.

· <u>Annex II - REPORTABLE EXPLOSIVES PRECURSORS</u>
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None of the ingredients is listed.

· <u>Regulation (EC) No 273/2004 on drug precursors</u>

None of the ingredients is listed.

· <u>Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors</u>

None of the ingredients is listed.

· <u>National regulations:</u>

· <u>Waterhazard class:</u>	Water hazard class 2 (Self-assessment): hazardous for water.
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· <u>Substances of very high concern (SVHC) according to REACH, Article 57</u>
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None of the ingredients is listed.

· <u>15.2 Chemical safety assessment:</u>
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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.

This Safety Data Sheets is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· <u>Department issuing SDS:</u>	Laboratory
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· <u>Date of previous version:</u>	13.06.2024
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· <u>Version number of previous version:</u>	9
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· <u>Abbreviations and acronyms:</u>	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
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
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

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