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* **1 Identification of substance**

- Product details
- Trade name: **Hardener paste 10:1**
- Article number: 10911, 10736
- Application of the substance / the preparation Hardening agent/ Curing agent
- 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
- Information department: Laboratory

* **2 Composition/Data on components**

- Chemical characterization
 - Description: Mixture of the substances listed below with nonhazardous additions.
 - Dangerous components:
- | | | |
|-------------------------|---------------------|----------|
| CAS: 94-36-0 | dibenzoyl peroxide | 12.5-25% |
| EINECS: 202-327-6 | Xi, E; R 2-36-43 | |
| EU Number: 617-008-00-0 | | |
| CAS: 5444-75-7 | 2-Ethylhexylbenzoat | 12.5-25% |
| EINECS: 226-641-8 | R 53 | |
- Additional information: For the wording of the listed risk phrases refer to section 16.

* **3 Hazards identification**

- Hazard description: Xi Irritant
O Oxidizing
- Information pertaining to particular dangers for man 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.
May cause fire.
Irritating to eyes.
May cause sensitization by skin contact.
- Classification system: The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- NFPA ratings (scale 0 - 4) Health = 1
Fire = 3
Reactivity = 2
- HMIS-ratings (scale 0 - 4) The substance possesses oxidizing properties.
Health = 1
Fire = 3
Reactivity = 2

* **4 First aid measures**

- General information: Immediately remove any clothing soiled by the product.
Personal protection for the First Aider.
- 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: Take affected persons into fresh air and keep quiet.
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: Rinse out mouth and then drink plenty of water.
Seek immediate medical advice.

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* 5 Fire fighting measures

- Suitable extinguishing agents: 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: Formation of toxic gases is possible during heating or in case of fire. In certain fire conditions, traces of other toxic gases cannot be excluded. In case of fire, the following can be released:
Carbon monoxide (CO)
- Protective equipment: Do not inhale explosion gases or combustion gases. Wear self-contained respiratory protective device.
- Additional information: Cool endangered receptacles with water spray.

* 6 Accidental release measures

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.
- Measures for cleaning/collecting: Pick up mechanically. Dispose of the collected material according to regulations. Send for recovery or disposal in suitable receptacles.
- Additional information: See Section 7 for information on safe handling.

* 7 Handling and storage

- Handling:
- Information for safe handling: Keep receptacles tightly sealed. Store in cool, dry place in tightly closed receptacles. Open and handle receptacle with care. Wear suitable respiratory protective device when decanting larger quantities without extractor facilities. Ensure good ventilation/exhaustion at the workplace. Keep away from heat and direct sunlight. Handle with care. Avoid jolting, friction and impact.
- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect from heat. Prevent impact and friction.
- Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location. Store only in the original receptacle. Prevent any seepage into the ground. Use only receptacles specifically permitted for this substance/product.
- 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: Protect from contamination. Store in cool, dry conditions in well sealed receptacles. Protect from heat and direct sunlight. Keep receptacle tightly sealed.
- Storage class: 5.2

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* 8 Exposure controls and personal protection

· Additional information about design of technical systems:

No further data; see item 7.

· Components with limit values that require monitoring at the workplace:

94-36-0 dibenzoyl peroxide

PEL 5 mg/m³REL 5 mg/m³TLV 5 mg/m³

· Additional information:

The lists that were valid during the creation were used as basis.

· Personal protective equipment:

· General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid close or long term contact with the skin.

Avoid contact with the eyes and skin.

Do not eat, drink, smoke or sniff while working.

Use skin protection cream for skin protection.

Be sure to clean skin thoroughly after work and before breaks.

· Breathing equipment:

Not necessary if room is well-ventilated.

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A/P2

· Protection of hands:

Protective gloves

Only use chemical-protective gloves with CE-labelling of category III.

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

Neoprene gloves

Fluorocarbon rubber (Viton)

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.

· 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

* 9 Physical and chemical properties

· General Information

Form:

Pasty

Color:

White

Odor:

Specific type

· Change in condition

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

Undetermined.

· Flash point:

Not applicable.

· Flammability (solid, gaseous):

May cause fire.

· Ignition temperature:

· Decomposition temperature:

> + 60°C (> + 140°F)

· Auto igniting:

Product is not selfigniting.

· Danger of explosion:

Explosive when mixed with oxidizing substances.

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- Vapor pressure at 20°C (68°F): 1 hPa (1 mm Hg)
- Density at 20°C (68°F): ~ 1.52 g/cm³
- Solubility in / Miscibility with Water: Partly soluble.

* 10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. Rapid decomposition by heating (e. g. direct sunlight or heater).
- Materials to be avoided: Rapid decomposition by dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavy-metal compounds and amines).
- Dangerous reactions Self accelerating decomposition above > + 60 °C.
Reacts with heavy metals.
Reacts with amines.
Reacts with acids, alkalis and oxidizing agents.
- Dangerous products of decomposition: Hydrocarbons, carbondioxide and -monoxid.

11 Toxicological information

- Acute toxicity:
- 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 internally approved calculation methods for preparations:
Irritant

* 12 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 (Self-assessment): slightly hazardous for water

* 13 Disposal considerations

- Product:
- Recommendation: Must be specially treated adhering to official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

- DOT regulations:
- Hazard class: -
- Land transport ADR/RID (cross-border):
- ADR/RID class: -
- Maritime transport IMDG:
- IMDG Class: -

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- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: -

* 15 Regulations

- Sara
- Section 355 (extremely hazardous substances):
None of the ingredient is listed.
- Section 313 (Specific toxic chemical listings):
94-36-0 dibenzoyl peroxide
- TSCA (Toxic Substances Control Act):
21645-51-2 aluminium hydroxide
94-36-0 dibenzoyl peroxide
84-61-7 dicyclohexyl phthalate
- 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)
94-36-0 dibenzoyl peroxide: 3
- NTP (National Toxicology Program)
None of the ingredients is listed.
- TLV (Threshold Limit Value established by ACGIH)
94-36-0 dibenzoyl peroxide: A4
- 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.
- Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials.
- Hazard symbols: Xi Irritant
O Oxidizing
- Hazard-determining components of labelling: dibenzoyl peroxide
- Risk phrases: May cause fire.
Irritating to eyes.
May cause sensitization by skin contact.
- Safety phrases: Keep out of the reach of children.
Keep container tightly closed in a cool place
Keep away from reducing agents, heavy metal compounds, acids and alkalis
Avoid contact with skin and eyes.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
Wear suitable gloves and eye/face protection.

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If swallowed, seek medical advice immediately and show this container or label.
Do not mix with
This material and its container must be disposed of as hazardous waste.

- 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.
- Disturbance regulations: Critical quantity values according to the regulations on accidents should be adhered to.
- 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: Laboratory
- Contact: Dieter Zimmermann
- * Data compared to the previous version altered.

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