

Date of print: 2011-06-29
 Date of last alteration: 2011-06-10 - Version: 1.0 English
 Product name: LUKAFix, LUKAPattern, LUKAClear



1 Identification of the substance or preparation and of the company

1.1 Identification of the substance/the preparation:

Commercial Product Name:

LUKAFix, LUKAPattern, LUKAClear

1.2 Use of the substance/the preparation: Professional.
 Light curing material for use in dentistry.

1.3 Company / undertaking identification:

Distributor: Lukadent GmbH
 Street / POB-No.: Felsenbergweg 2
 State / postal code / city: D-71701 Schwieberdingen
 Telephone: +49 7150/32955 Telefax: +49 7150/34113
 E-Mail: info@lukadent.de

1.4 Emergency number: +49 7150/32955
 This number is only obtainable during office hours (Monday - Friday 8.00 a.m. - 5.00 p.m.)

2 Hazards identification



2.1 Classification: The product is not a hazardous preparation according to the guideline 1999/45/EC.

3 Composition / information on ingredients

3.1 Chemical characterisation (preparation):

Description: Mixture of acrylic/methacrylic resins with auxiliary matters and pigments.

3.2 Hazardous ingredients:

Ingredient	CAS-No.	EC-No.	Index-No.	Concentration	Hazard symbols	R-Phrases
2,4,6-Trimethylbenzoyldiphenylphosphinoxide	75980-60-8	278-355-8	-	< 0,5%		62-52/53
2-Ethylhexyl-4-(dimethylamino)benzoate	21245-02-3	244-289-3	-	< 0,2%		36

3.3 Further information: The identification letters and the R-Phrases are described in section 16.

4 First aid measures

4.1 General information:

In case of accident or if you feel unwell, seek medical advice (if possible, show the label or this MSDS).
 Medical advice is necessary in case of symptoms evidently being due to the contact of this product with skin and eyes, or being due to the inhalation of its vapours.

4.2 After inhalation:

Move to fresh air immediately and lay the victim restful down, in case of respiratory distress in a stable lateral position. Seek medical advice immediately.

4.3 After contact with the skin:

Wash with plenty of water and soap. Do not use organic solvents!
 Avoid direct UV- or sunlight. In case of visible skin reaction or complaints, seek medical advice.

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- After contact with the eyes: Rinse the open eyes immediately with plenty of water for at least 15 minutes, seek immediately medical advice.
- 4.5 After swallowing: Seek immediately medical advice. Immediately rinse mouth well with water and drink plenty of water in small portions. Do not induce vomiting. In case of spontaneous vomiting take care of an unhindered flow out of the vomit (danger of suffocation).
- 4.6 Autoprotection of the first assistant: Take care of a sufficient autoprotection (hand protection, foil mask "Life key").
- 5 Fire fighting measures**
- 5.1 Suitable extinguishing media: Water mist, dry powder, carbon dioxide, alcohol-resistant foam.
- 5.2 Extinguishing media which must not be used for safety reasons: Water jet.
- 5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: Possible formation of acrid acrylic fumes. Do not breathe combustion gases.
- 5.4 Special protective equipment for fire fighting: Use respiratory protection independent of recirculated air. Wear suitable protective clothing. Accomplish decontamination by means of explosion-proofed equipment.
- 6 Accidental release measures**
- 6.1 Personal precautions: Avoid unprotected exposure to the unpolymerised product. Wear suitable protective clothing. Provide for sufficient ventilation.
- 6.2 Environmental precautions: Keep away from sewage treatment plants, in-shore waters and earth. Observe local byelaws.
- 6.3 Methods for cleaning up: Absorb with liquid binding material (mica, diatomaceous earth) and collect it in a suitable container, labelled according to regulations (for disposal see section 13).
- 7 Handling and storage**
- 7.1 Handling:
 Precautions for safe handling: The usual precautions in handling with chemicals are to be observed. When using to not eat, drink or smoke. Avoid contact with eyes, skin and clothing. Do not breathe vapours.
- Precautions against fire and explosion: Take precautionary measures against static discharges. Remove all containers not yet affected by fire. Cool endangered containers with water mist.
- 7.2 Storage:
 Conditions for storage rooms and vessels: Keep only in the original container in a cool, dry and well-ventilated place, away from foodstuffs. Keep container always tightly closed.
- Advice for storage of incompatible materials: Keep away from strong oxidising agents, alkaline or acidic substances.
- Further information for storage: Keep at temperature not exceeding 25 °C / 77 °F. Keep away from all kind of light. An inert gas blanket should not be applied, because the stability of the product depends on the presence of oxygen (air).
- 7.3 Definite use: Dental repair material for use by trained specialist staff.

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8 Exposure controls and personal protection

8.1 Exposition limit values:

Associate substances with specific control parameters such as limit values:

No associated substances with specific control parameters.

8.2 Limitation and control of the exposition

8.2.1 Limitation and control of the exposition at the place of work: Exposition limit values must be supervised by means of appropriate analytical equipment.

General protection and hygiene measures: The usual precautions in handling with chemicals must be respected. When using to not eat, drink or smoke. Take off immediately all contaminated clothing. Do not breathe vapours. Provide for sufficient ventilation/suction system.

Personal protection equipment:

Respiratory protection:

In an emergency (e.g. unintentional release of the product, exceeding the occupational exposure limit values) respiratory protection must be worn. Respiratory protection: Gas filter A. Consider the maximum period for wear.

Hand protection:

Use protective gloves. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location.

Suitable are gloves of the following material

(permeation time \geq 1 hour):

Butyl rubber – Butyl (0.5 mm).

Unsuitable are gloves of the following materials:

Natural rubber/Natural latex - NR; Polychloroprene – CR; Nitrile rubber/Nitrile latex – NBR; Fluoro carbon rubber – FKM; Polyvinyl chloride – PVC.

Textile or leather gloves are completely unsuitable.

The times listed are suggested by measurements taken at 22 °C / 72 °F and constant contact. Temperatures raised by warmed substances, body heat, etc. and a weakening of the effective layer thickness caused by expansion can lead to a significantly shorter breakthrough time.

In case of doubt contact the gloves' manufacturer.

Eye protection:

Wear protective glasses / face protection.

Body protection:

Wear working clothing.

8.2.2 Limitation and control of the environmental exposition: Don't let the material penetrate into sewage treatment plants, in-shore waters and earth.

9 Physical and chemical properties

9.1 Appearance

Form: viscous liquid
 Colour: rose
 Odour: characteristic

9.2 Important information on health and environmental protection and on safety:

Method (67/548/EEC)

pH-value	n.a.	
Boiling point	not tested	DIN 51356
Flash point	> 100 °C / 212 °F	DIN 51755
Ignition temperature	not tested	DIN 51794
Vapour pressure	< 1 hPa at 20 °C / 68 °F	

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Density	=	approx. 1.1 g/cm ³ at 20 °C/68 °F	DIN 51757
Solubility in water	=	virtually insoluble	
Distribution coefficient octanol / water:		n.a.	
Viscosity, dynamic	=	approx. 6 500 mPa.s at 23 °C / 73 °F	Brookfield
Explosion limits		n.a.	

9.3 Further information:
 Thermal decomposition: not tested

10 Stability and reactivity

10.1 Conditions to avoid: Ultra-violet light and daylight initiate polymerisation of the product. Therefore keep only in tightly closed containers away from any sources of light. Keep at temperature not exceeding 25 °C / 77 °F.

10.2 Materials to avoid: Reacts violently with strong oxidising agents, free-radical producing initiators, heavy metal ions.

10.3 Hazardous decomposition products: No decomposition, If stored and handled in accordance with standard industrial practices. In case of fire, acrid acrylic fumes may occur.

11 Toxicological information

11.0 General information: In case of prolonged or intense exposure, unprotected handling of the unpolymerised product may irritate the eyes, respiratory system and the skin.
 In persons bearing a special disposition, the product may cause allergic reactions by repeated skin contact.

11.1 Toxicological tests

Acute toxicity

Acute oral toxicity:

For the product itself no toxicological data are available. In products with a comparable composition, a LD₅₀ (orally, species rat) of more than 5 000 mg/kg has been found.

Irritative effect to the skin:

The irritative capacity of products with a comparable composition has been tested: Rabbit, 4 hours, different methods, occlusive, diluted and undiluted. Not any effects up to slightly irritant effects occurred.

In case of prolonged and/or frequent skin contact, irritations cannot be excluded.

Irritative effect to the eyes:

Analogous products have been tested with rabbits. Slight irritations arised.

In case of prolonged exposure, irritations to the mucosal membranes of the eyes are possible.

Mutagenicity / Reproductive toxicity / Fertility:

With analogous products, no mutagenic or reproduction toxic effects could be derived from animal in-vitro and in-vivo tests.

12 Ecological information

12.1 Ecological toxicity:

Effects in sewage treatment plants (bacteria toxicity: respiration-/reproduction inhibition):

Do not introduce into purification plants.

12.2 Mobility: No data available.

12.3 Persistence and degradability

Biodegradation / further information:

No data available.

12.4 Potential of biological accumulation: No data available.

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12.5 Other harmful effects: Harmful to aquatic organisms. A hazard for drinking water sources only is possible when very large quantities get into the ground-water.

12.6 Further ecotoxicological effects: Avoid escape into water, drainage, sewer, or the ground.

13 Disposal considerations

13.1 Waste management (product): Recommendation: Dispose of according to regulations by incineration in a special waste incinerator. Observe the local byelaws.

European Waste Catalogue Ref.No.: 07 02 08 (AVV)

13.2 Contaminated packaging: Recommendation: Fully empty containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/national byelaws.

14 Transportation information

14.1 Land transportation ADR/RDI and GGVS/GGVE:
 GGVS/GGVE-class..... : Non-hazardous material
 ADR/RID-class..... : Non-hazardous material
 Transportation emergency card number:
 Warning board - Hazard No.:
 Nomenclature..... :
 Further information..... :
 Limited Quantities :

14.2 Inland navigation ADN/ADNR:
 Further information: Non-hazardous material

14.3 Transportation by sea IMDG/GGVsea:
 IMDG/GGVsea-class .. : Non-hazardous material
 EmS-No..... :
 Marine pollutant :
 Proper shipping name.. :
 Technical name..... :
 LTD. QTY..... :

14.4 Air transportation ICAO-TI and IATA-DGR transportation by air:
 ICAO/IATA-class..... : Non-hazardous material
 Proper shipping name.. :
 Technical name :

15 Regulatory information

15.1 National regulations (Germany):
 Observe local/national byelaws.
 Information for labelling is given in section 2 of this document.

16 Other information

16.1 Wording of the R-phrases under section 3:
 R-Phrases and identification letters
 R-Phrases:
 R 36 Irritating to eyes
 R 62 Possible risk of impaired fertility
 R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
 Identification letters:
 Xi Irritating Xn Harmful

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16.2 Further information

Explanation of the abbreviations:

n.a. = not applicable

n.s. = not subject to

16.3 Product:

The given information describes exclusively the safety requirements of the product(s) and is based on our present-day knowledge. It does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations.

This Safety Data Sheet has been adjusted to the Directive (EC) 453/2010.