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

- · 1.1 Product identifier
- · Trade name: LICHTHÄRTENDES LÖFFELMATERIAL opak
- · Article number:

505081

505083

· 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:

Production of individual trays.

Light-curing, individual tray material.

- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Hersteller:

dent a pharm Produktionsgesellschaft mbH

Schusterring 35

D-25355 Barmstedt

+49 (0) 4123 / 9225 0

info@dent-a-pharm.de

Lieferant:

SHERA Werkstoff-Technologie GmbH & Co. KG

Espholstraße 53

D-49448 Lemförde

sdb@shera.de

- + 49 (0) 5443 9933-0
- · Further information obtainable from: Department of product security.
- · 1.4 Emergency telephone number:

Giftinformationszentrum-Nord: +49 (0) 551-19240

(Information in german or english)

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008:

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

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008:

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

· Hazard pictograms:



GHS07

- · Signal word: Warning
- · Hazard-determining components of labelling:
- 4,4'-isopropylidened phenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

Triethylene glycol dimethacrylate

· Hazard statements:

H317 May cause an allergic skin reaction.

· Precautionary statements:

P272 Contaminated work clothing should not be allowed out of the workplace.

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P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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

P362+P364 Take off contaminated clothing and wash it before reuse.

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 Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:				
CAS: 55818-57-0	4,4'-isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid	5-8%		
	Skin Sens. 1, H317			
CAS: 109-16-0	Triethylene glycol dimethacrylate	2-5%		
EINECS: 203-652-6	Skin Sens. 1, H317			
CAS: 75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	0.05-0.1%		
EINECS: 278-355-8	Repr. 2, H361f; Aquatic Chronic 3, H412			

· 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: No special measures required.
- · After inhalation: Seek medical treatment in case of complaints.
- · After skin contact:

Immediately wash with water and soap and rinse thoroughly.

In case of skin irritation, seek medical treatment.

· After eye contact:

Rinse opened eye for several minutes under running water.

In case of troubles or persistent symptoms, consult an ophthalmologist.

- · After swallowing: If symptoms persist consult doctor.
- \cdot 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:

Use fire extinguishing methods suitable to surrounding conditions.

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 No further relevant information available.

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- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation.
- 6.2 Environmental precautions Do not allow to enter sewers / surface or ground water.
- · 6.3 Methods and material for containment and cleaning up Pick up mechanically.
- · 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.
- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- · Requirements to be met by storerooms and receptacles:

Store in a cool, dark place.

Protect from moisture.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Storage class: No information available.
- · 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:

109-16-0 Triethylene glycol dimethacrylate

MAK (Germany) cf. Section IV

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see item 7.
- \cdot Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

- · Respiratory protection: Not required.
- · Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product. Due to missing tests no recommendation to the glove material can be given for the product. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

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· 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.

· Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye/face protection Not required.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Colour: Different, depending on coloring

Odour: OdourlessMelting point/freezing point: Undetermined.

· Boiling point or initial boiling point and boiling

range Undetermined.
• Flammability Not determined.

· Lower and upper explosion limit

Lower: Not determined.
Upper: Not determined.
Flash point: >100 °C

· Auto-ignition temperature: Product is not selfigniting.

Decomposition temperature: Not determined.pH Not applicable.

· Viscosity:

Kinematic viscosity
 Dynamic:
 Solubility
 Not applicable.

· water: Insoluble.

Partition coefficient n-octanol/water (log value)
 Vapour pressure:
 Not determined.
 Not applicable.

· Density and/or relative density

Density: Not determined.
Relative density Not determined.
Vapour density Not applicable.

· 9.2 Other information

· Appearance:

• Form: Solid • Important information on protection of health and

environment, and on safety.

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

· Solvent content:

· **VOC (EC):** 0.00 %

· Change in condition:

• Evaporation rate Not applicable.

· Information with regard to physical hazard classes

Explosives Void.Flammable gases Void.

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Void.	
Void.	
able	
Void.	
	Void.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No data available.
- 10.2 Chemical stability Stable under normal storage and handling conditions.
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions

Danger of polymerisation.

In the presence of radical formers, reducing substances and/or heavy metal ions, polymerisation is possible when heat develops.

· 10.4 Conditions to avoid

The product cures when exposed to visible and UV light. Therefore store in closed containers with complete exclusion of light at 0 $^{\circ}$ C - 22 $^{\circ}$ C.

· 10.5 Incompatible materials

Radical formers, peroxides, strong alkalis, and reactive metal cause exothermal polymerisation.

• 10.6 Hazardous decomposition products No dangerous decomposition products known.

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.
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · 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.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

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SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 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 For information on endocrine disrupting properties see section 11.
- · 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (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.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation: Smaller quantities can be disposed of with household waste.
- · Waste disposal key:

The waste disposal code as prescribed in the EuropeanWaste Catalogue (EWC) depends on the waste producer and can thus vary for a product. The waste disposal code should thus be obtained separately from the waste producer in each case.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

· 14.1 UN number or ID number		
ADR, IMDG, IATA	Void.	
ADN	Void.	
· 14.2 UN proper shipping name		
· ADR, IMDG, IATA	Void.	
· 14.3 Transport hazard class(es)		
· ADR, IMDG, IATA		
Class	Void.	
· ADN/R Class:	Void.	
· 14.4 Packing group		
· ADR, IMDG, IATA	Void.	
· 14.5 Environmental hazards:	Not applicable.	
· 14.6 Special precautions for user	Not applicable.	
· 14.7 Maritime transport in bulk according	j to IMO	
instruments	Not applicable.	

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· UN "Model Regulation":

Void.

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 None of the ingredients is listed.
- · National regulations:
- · Information about limitation of use:

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on the state of knowledge and experience pertaining on the date of issue. The information is not to be taken as a guarantee of product properties and do not constitute the basis for a contractual legal relationship. The details must not be changed or transferred to other products. Duplication in an unchanged state is permissible.

· Relevant phrases

H317 May cause an allergic skin reaction.

H361f Suspected of damaging fertility.

H412 Harmful to aquatic life with long lasting effects.

- · Department issuing SDS: Department of product security.
- · Abbreviations and acronyms:

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

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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Sens. 1: Skin sensitisation . Category 1

Repr. 2: Reproductive toxicity . Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard . Category 3

· * Data compared to the previous version altered.

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