

Plaque Photo, upper-patterns

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

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Product group: Zwischenprodukt

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Light-cure impression tray material for the fabrication of custom trays, bite plates and base plates for needle-point tracing.

1.3. Details of the supplier of the safety data sheet

| | | |
|---------------|-----------------------|-------------------------|
| Company name: | Lukadent GmbH | |
| Street: | Felsenbergweg 2 | |
| Place: | 71701 Schwieberdingen | |
| Telephone: | +49 7150 32955 | Telefax: +49 7150 34113 |
| e-mail: | info@lukadent.de | |
| Internet: | www.lukadent.de | |

1.4. Emergency telephone number: +49 7150 32955(just during usual office time: GMT+1)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**Skin Sens. 1; H317
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation****Hazard components for labelling**Diurethane Dimethacrylate
Aliphatic Urethane Acrylate**Signal word:** Warning**Pictograms:****Hazard statements**May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.**Precautionary statements**Protect from sunlight.
If skin irritation or rash occurs: Get medical advice/attention.
Contaminated work clothing should not be allowed out of the workplace.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
IF ON SKIN: Wash with plenty of water.

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Special labelling of certain mixtures

Restricted to professional users.

2.3. Other hazards

No information available.

Water hazard class 2 - Hazardous to the aquatic environment.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Matrix of polyfunctional methacrylates, glass, photochemical initiators and petroleum jelly.

Hazardous components

| CAS No | Chemical name | | | Quantity |
|------------|---|--------------|------------------|-------------|
| | EC No | Index No | REACH No | |
| | Classification (GB CLP Regulation) | | | |
| 72869-86-4 | Diurethane Dimethacrylate | | | 10 - < 15 % |
| | 276-957-5 | | 01-2120751202-68 | |
| | Skin Sens. 1, Aquatic Chronic 2; H317 H411 | | | |
| 75980-60-8 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | | | < 0.1 % |
| | 278-355-8 | 015-203-00-X | | |
| | Repr. 2; H361f | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|------------|--|---|----------|
| | Specific Conc. Limits, M-factors and ATE | | |
| 75980-60-8 | 278-355-8 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | < 0.1 % |
| | inhalation: Data lacking (gases); oral: LD50 = >5000 mg/kg | | |

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Polymerized material is non-hazardous.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary. Not applicable as all components have got a boiling point above 250°C.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary. After contact with skin: wash with water and soap.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**Other information**

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid dust formation. Do not breathe dust. The unprotected substance must not be exposed to the light before processing, because it polymerizes. Only adequately trained personnel should handle this product. For use in dentistry only.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Light-sensitive substance. Protect from exposure to the light. Store not above 25°C.

Hints on joint storage

No special measures are necessary.

7.3. Specific end use(s)

MP-TRAY is a light curing tray material for the fabrication of individual custom trays with extremely high

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dimensional stability.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|--------------------------|---|----------------|----------|-------------------------|
| 75980-60-8 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | | | |
| Worker DNEL, long-term | | dermal | systemic | 0,233 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 0,145 mg/m ³ |
| Consumer DNEL, long-term | | dermal | systemic | 0,0833 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 0,0833 mg/kg bw/day |

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Appropriate engineering controls

Use a suitable dust extraction when grinding the polymerized plate.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: paste
 Colour: transparent, white-gray, pink, blue, green
 Odour: characteristic

Melting point/freezing point: -20 °C
 Boiling point or initial boiling point and boiling range: 200 °C
 Flammability: not applicable
 Lower explosion limits: not applicable
 Upper explosion limits: not determined
 Flash point: > 100 °C

Test method

not determined VDI 2263
 not determined VDI 2263

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| | |
|--|------------------------|
| Auto-ignition temperature: | 445 °C |
| Decomposition temperature: | not determined |
| pH-Value: | not applicable |
| Water solubility: | insoluble |
| Solubility in other solvents | |
| not determined | |
| Partition coefficient n-octanol/water: | not determined |
| Vapour pressure: | 1 hPa |
| (at 20 °C) | |
| Density: | 1,89 g/cm ³ |
| Relative vapour density: | not determined |

9.2. Other information**Information with regard to physical hazard classes**

Self-ignition temperature

| | |
|--------|----------------|
| Solid: | not determined |
| Gas: | not applicable |

Oxidizing properties

Not oxidising.

Other safety characteristics

| | |
|-------------------|--------------------|
| Evaporation rate: | not determined |
| Solid content: | 76,15 % |
| Flow time: | Data not available |

SECTION 10: Stability and reactivity**10.1. Reactivity**

Material will polymerize when exposed to daylight.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Direct light.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

With incomplete combustion toxic gases such as carbon monoxide may be generated.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Based on available data, the classification criteria are not met.

ATEmix tested

| | Dose | Species | Source |
|--------------|------------|---------|--------|
| LD50, oral | 5000 mg/kg | Rat | |
| LD50, dermal | 2000 mg/kg | Rat | |

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| CAS No | Chemical name | | | | |
|------------|---|------------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 75980-60-8 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | | | | |
| | oral | LD50 >5000 mg/kg | Rat | | |
| | inhalation | Data lacking | | | |

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

May cause an allergic skin reaction. (Diurethane Dimethacrylate)

Carcinogenic/mutagenic/toxic effects for reproduction

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.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

| CAS No | Chemical name | | | | | |
|------------|---|-----------------|-----------|---------------------------------|--------------------|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 75980-60-8 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | | | | | |
| | Acute fish toxicity | LC50 6,53 mg/l | 96 h | Oryzias latipes | | |
| | Acute algae toxicity | ErC50 2,01 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD 201 | |
| | Acute crustacea toxicity | EC50 3,53 mg/l | 48 h | Daphnia magna | OECD Guideline 202 | |

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|------------|---|---------|
| 72869-86-4 | Diurethane Dimethacrylate | 3 |
| 75980-60-8 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 3,257 |

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

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12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.
Water hazard class 2 - Hazardous to the aquatic environment.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

2005000 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); Plastics

List of Wastes Code - used product

2005000 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); Plastics

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**14.6. Special precautions for user**

No information available.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 75

2010/75/EU (VOC): 11,38 % (215,082 g/l)

2004/42/EC (VOC): 12,104 % (228,766 g/l)

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 3 - highly hazardous to water

Skin resorption/Sensitization: Permeates easily through outer skin and causes poisoning. Causes allergic hypersensitivity reactions.

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15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 1,2.

Abbreviations and acronyms

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 Harmonized 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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

May cause an allergic skin reaction.

Suspected of damaging fertility.

Toxic to aquatic life with long lasting effects.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)