primotec - Joachim Mosch e.K

Safety Data Sheet

according to Regulation (EC) No 1907/2006

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

1.1. Product identifier
primopattern LC Paste

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

Use of the substance/mixture
Light curing dental resin.

1.3. Details of the supplier of the safety data sheet
Company name: primotec - Joachim Mosch e.K
Street: Tannenwaldallee 4
Place: D-61348 Bad Homburg
Telephone: +49 (0)6172-997700-0
Telefax: +49 (0)6172-997700-99
e-mail: primotec@primogroup.de
Internet: www.primogroup.de

1.4. Emergency telephone number:
Giftinformationszentrum Universitätsklinikum Mainz
Telefon +49 (0)6131-19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008
Hazard categories:
Respiratory or skin sensitisation: Skin Sens. 1A
Hazardous to the aquatic environment: Aquatic Chronic 2

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling
Neopentyl glycol propoxylate diacrylate (NPGPODA)
Urethane dimethacrylate (UDMA)
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (TPO)
phosphine oxide

Signal word: Warning

Hazard statements
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
P261 Do not breathe vapour.
P280 Wear protective gloves/protective clothing/eye protection.
P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local regulation.
2.3. Other hazards
Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization
Mixture of acrylic resins and initiators.

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>84170-74-1</td>
<td>Neopentyl glycol propoxylate diacrylate (NPGPODA)</td>
<td>40 - 60 %</td>
</tr>
<tr>
<td>72869-86-4</td>
<td>Urethane dimethacrylate (UDMA)</td>
<td>&lt; 25 %</td>
</tr>
<tr>
<td>75980-60-8</td>
<td>Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (TPO)</td>
<td>&lt; 1 %</td>
</tr>
</tbody>
</table>

Classification according to Regulation (EC) No. 1272/2008 [CLP]

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</tbody>
</table>

Skin Sens. 1, Aquatic Chronic 2; H317 H411
Skin Sens. 1, Aquatic Chronic 3; H317 H411
Repr. 2, Skin Sens. 1, Aquatic Chronic 2; H361 H317 H411
Skin Sens. 1A, Aquatic Chronic 4; H317 H413

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours. Take off all contaminated clothing immediately.

After inhalation
Provide fresh air. Medical treatment necessary.

After contact with skin
After contact with skin, wash immediately with plenty of water and soap. Immediately remove any contaminated clothing, shoes or stockings. Medical treatment necessary.

After contact with eyes
After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

After ingestion
Do NOT induce vomiting. Medical treatment necessary.

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.
SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media
  Foam. Extinguishing powder Carbon dioxide

- Unsuitable extinguishing media
  Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide. Carbon dioxide Hazardous decomposition products

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

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

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). 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
Provide good room ventilation.

Advice on protection against fire and explosion
Keep away from sources of ignition. - No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Protect from the action of light. Keep only in the original container at a temperature between 4 -25 °C. Can polymerize with intense heat release.

Advice on storage compatibility
No special measures are necessary.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Protective and hygiene measures
Avoid contact with skin, eyes and clothes. 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.

**Eye/face protection**
- tightly fitting goggles

**Hand protection**
- Gloves should be replaced regularly, especially after extended contact with the product. For each work-place a suitable glove type has to be selected.

**Skin protection**
- Wear suitable protective clothing.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>pasty</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>red</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
<td></td>
</tr>
<tr>
<td>pH-Value</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Changes in the physical state</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 100 °C</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limits</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limits</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>1.1 g/cm³</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>insoluble</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The substance is not soluble in water.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Vapour density</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not determined</td>
<td></td>
</tr>
</tbody>
</table>

#### 9.2. Other information

Product has not been tested. The statement is derived from the properties of the components.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.
10.2. Chemical stability
The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions
Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

10.4. Conditions to avoid
Protect from the action of light. Keep only in the original container at a temperature between 4 -25 °C. Can polymerize with intense heat release.

10.5. Incompatible materials
Oxidising agent, Reducing agent, Heavy metals, acids, Alkali (lye)

10.6. Hazardous decomposition products
No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>72869-86-4</td>
<td>Urethane dimethacrylate (UDMA)</td>
<td>oral</td>
<td>LD50 &gt;2000 mg/kg</td>
<td>Rat</td>
<td>OECD 401</td>
</tr>
<tr>
<td>75980-60-8</td>
<td>Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (TPO)</td>
<td>oral</td>
<td>LD50 &gt; 5000 mg/kg</td>
<td>Rat</td>
<td>RTECS</td>
</tr>
<tr>
<td></td>
<td>phosphine oxide</td>
<td>oral</td>
<td>LD50 &gt; 2000 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 &gt; 2000 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
</tbody>
</table>

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

Sensitising effects
May cause an allergic skin reaction. (Neopentyl glycol propoxylate diacrylate (NPGPODA)); (Urethane dimethacrylate (UDMA)); (Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (TPO)); (phosphine oxide) Possible sensitization in case of persons suffering from hypersensitivity.

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.

Further information
Product has not been tested. The statement is derived from the properties of the components.

SECTION 12: Ecological information

12.1. Toxicity
### Safety Data Sheet

**primopattern LC Paste**

Product code: 1350820

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**CAS No** | **Chemical name** | **Aquatic toxicity** | **Dose** | **[h] | [d]** | **Species** | **Source**
--- | --- | --- | --- | --- | --- | ---
72869-86-4 | Urethane dimethacrylate (UDMA) | Acute fish toxicity | LC50 | 10,1 mg/l | 96 h | Brachydano rerio (zebra-fish) | OECD 203

75980-60-8 | Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (TPO) | Acute crustacea toxicity | EC50 | 3,53 mg/l | 48 h | Daphnia | phosphine oxide

| Acute fish toxicity | LC50 | (> 0,09) mg/l | 96 h | Brachydano rerio (zebra-fish) |

| Acute crustacea toxicity | EC50 | (> 1,175) mg/l | 48 h | Daphnia magna (Big water flea) |

### 12.2. Persistence and degradability

The product has not been tested.

**CAS No** | **Chemical name** | **Method** | **Value** | **d** | **Source**
--- | --- | --- | --- | --- | ---
72869-86-4 | Urethane dimethacrylate (UDMA) | Biodegradation | 22 % | 28 | OECD 301 F

### 12.3. Bioaccumulative potential

The product has not been tested.

### 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment

The product has not been tested.

### 12.6. Other adverse effects

No information available.

### Further information

Do not allow uncontrolled discharge of product into the environment. Do not allow to enter into surface water or drains.

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**SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

#### Advice on disposal

Small quantities can be polymerized by light and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities. Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

070208 | WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues. Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

070208 | WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues. Classified as hazardous waste.

**Contaminated packaging**

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.
SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NEOPENTYL GLYCOL PROPOXYLATE DIACRYLATE)
14.3. Transport hazard class(es): III
14.4. Packing group: III
Hazard label: 9
Classification code: M6
Special Provisions: 274 335 375 601
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 90
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NEOPENTYL GLYCOL PROPOXYLATE DIACRYLATE)
14.3. Transport hazard class(es): III
14.4. Packing group: III
Hazard label: 9
Classification code: M6
Special Provisions: 274 335 375 601
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NEOPENTYL GLYCOL PROPOXYLATE DIACRYLATE)
14.3. Transport hazard class(es): III
14.4. Packing group: III
Hazard label: 9
Special Provisions: 274, 335, 969
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NEOPENTYL GLYCOL PROPOXYLATE DIACRYLATE)
14.3. Transport hazard class(es): III
14.4. Packing group: III
Hazard label: 9
Special Provisions: A97 A158 A197
Limited quantity Passenger: 30 kg G
Passenger LQ: Y964
Excepted quantity: E1
14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes
Danger releasing substance: NEOPENTYL GLYCOL PROPOXYLATE DIACRYLATE

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information
Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information

Changes

Matter of revision: change of Classification

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)

H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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