Ultradent® LC Block-Out Resin

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

1.1. Product identifier

- **Product code**: BO/10318
- **Product name**: Ultradent® LC Block-Out Resin
- **Product description**: Light cure laboratory block out and model resin

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

- **Relevant identified uses**: Dental laboratory resin

1.3. Details of the supplier of the safety data sheet

**Manufacturer**
- Ultradent Products, Inc.
- 505 W. 10200 S.
- South Jordan, UT 84095

**EC Responsible Person**
- Ultradent Products GmbH
- Am Westhover Berg 30
- 51149 Cologne Germany
- Email: infoDE@ultradent.com
- **Emergency Phone**: +49(0)2203-35-92-0

1.4. Emergency telephone number

- **Phone**: +49 (0) 2203-35-92-0
  (office hours 0900 - 17:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

- **Health**: Acute Toxicity (Inhalation), Category 2
  Skin Sensitization, Category 1

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

- **Hazard pictogram(s)**: Exclamation mark

**Signal Word**: WARNING

**Hazard statement(s)**:
- H317: May cause an allergic skin reaction.
- H335: May cause respiratory irritation.

**Precautionary statement(s)**

- **Prevention**: P261: Avoid breathing vapours.
  P280: Wear protective gloves/eye protection.
SAFETY DATA SHEET
according to Regulation (EC) No. 453/2010

Ultradent® LC Block-Out Resin

Response

P302+P352: IF ON SKIN: Wash with plenty of water.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash it before reuse.

Disposal

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

3.1. Substances

Not Applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>EINECS No.</th>
<th>Wt.%</th>
<th>Classification according to Regulation(EC) No 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5. 12-diazahexadecane- 1,16-diyl bismethacrylate</td>
<td>72869-86-4</td>
<td>2769575</td>
<td>50 - 100</td>
<td>Skin Sens.,Cat. 1; H317</td>
</tr>
<tr>
<td>2,2'-ethylenedioxydiethyl dimethacrylate</td>
<td>109-16-0</td>
<td>203-652-6</td>
<td>10 - 25</td>
<td>Skin Sens.,Cat. 1B; H317</td>
</tr>
</tbody>
</table>

For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

If symptoms occur or in case of doubt consult a doctor.

After eye contact.

Keep eye lids open and rinse them with ample amounts of clean running water for at least 15 minutes.

In case of permanent aches and pains please go and see the doctor.

After skin contact

Remove contaminated clothing.

In case of permanent aches and pains please go and see the doctor.

After swallowing

Rinse out mouth and drink plenty of water. Instantly call for doctor.

After inhalation

Move person to fresh air.

In case of persistent symptoms consult doctor.

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

General information

No further relevant information available.

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

No further relevant information available.

SECTION 5: Fire fighting measures

5.1. Extinguishing media

Extinguishing media

Extinguishing powder, foam or water jet. Fight larger fires with water jet or
5.2. Special hazards arising from the substance or mixture

General hazard: Formation of toxic gases is possible during heating or case of fire.

Hazardous combustion products: Nitrogen Oxides (NOx), Carbon monoxide (CO)

5.3. Advice for firefighters

Fire fighting equipment: In case of fire wear breathing equipment being independent of ambient air and suit provided full protection against chemicals.

Additional information: Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General procedures: Wear protective equipment. Keep unprotected persons away. Avoid contact with eyes, skin and clothes.

6.2. Environmental precautions

Water spill: Inform respective authorities in case product reaches water or sewage system. Do not allow to enter drainage system, surface or ground water.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Send for recovery or disposal in suitable containers. Complete cleaning with water.

6.4. Reference to other sections

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 information on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

General procedures: Keep containers tightly sealed. Avoid direct contact with eyes, skin and clothing.

Storage: Requirement to be met by storerooms and containers:
Store only in the original container. Keep container tightly closed and store upright to prevent any spill of product.

Information about storage in one common storage facility:
Keep away from food, drink and animal feeding stuffs. Store away from oxidising agents.

Further information about storage conditions: Keep container tightly sealed. Protect from direct sunlight.

7.2. Conditions for safe storage, including any incompatibilities

Shelf life: See product labeling

7.3. Specific end use(s)
SAFETY DATA SHEET
according to Regulation (EC) No. 453/2010
Dental Use

Ultradent® LC Block-Out Resin

 Specific end use(s) : No further relevant information available.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters
Control parameters : Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of material with critical values that have to be monitored at the workplace

Additional information: The lists that were valid during the compilation were used as basis.

8.2. Exposure controls
Eye/face protection : Tightly sealed safety glasses.
Skin protection : Protective gloves.
The glove material has to be impermeable and resistant to the product/the substance/the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks substances, the resistance of the glove material can not be calculated in advance and has therefore Butyl rubber, BR

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. In case of a layer thickness of 0.7 mm the penetration time is longer than 480 minutes.

Body protection: Protective work clothing
Respiratory protection : Not necessary if room is well-ventilated.
Use breathing protection only when aerosol or mist is formed.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gel
Appearance : Medium viscosity
Colour : Blue
Odour : Methacrylate
Odour threshold : NAP
pH : None (Not aqueous)
Melting temperature : < 25°C
Boiling temperature : > 100°C
Flash point : NAP
Evaporation rate : NAP
Flammability (solid, gas) : NAP
SAFETY DATA SHEET
according to Regulation (EC) No. 453/2010
Dental Use

Ultradent® LC Block-Out Resin

Flammable limits : NAP
Vapor pressure : NAP
Vapor density : NAP
Specific gravity : 1.1 to 1.2
Solubility in water : Insoluble
Partition coefficient: n-octanol/water : NAP
Auto-ignition temperature : NAP
Thermal decomposition : 260 °C (estimate from TGA trace)
Viscosity : 46,000 cPs

9.2. Other information
Additional information : No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity : Polymerization under the influence of light.

10.2. Chemical stability
Chemical stability : Thermal decomposition/conditions to be avoided:
No decomposition if used according to specifications.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions : No dangerous reactions known.

10.4. Conditions to avoid
Conditions to avoid : UV light

10.5. Incompatible materials
Incompatible materials : Strong oxidizing agents.

10.6. Hazardous decomposition products
Hazardous decomposition products : None known

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute
Dermal LD₅₀ : > 2200 mg/kg Rabbit/Rat/Mouse
Notes : ~77% of the mixture consists of components of unknown toxicity (dermal)
Oral LD₅₀ : > 2300 mg/kg Rat
Notes : ~1% of the mixture consists of components of unknown toxicity (oral).
Inhalation LC₅₀ : > 0.20 mg/L/4H Vapor Rat
Notes : ~92% of the mixture consists of components of unknown toxicity (inhalation).
Notes : Based on available data, the classification criteria are not met.
Skin corrosion/irritation : Based on available data, the classification criteria are not met.
**SAFETY DATA SHEET**

according to Regulation (EC) No. 453/2010

Dental Use

**Ultradent® LC Block-Out Resin**

<table>
<thead>
<tr>
<th>Property</th>
<th>Classification Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/irritation</td>
<td>Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td>Other information</td>
<td>Device is biocompatible when used as directed by dental professionals per ISO 10993-1.</td>
</tr>
</tbody>
</table>

**SECTION 12: Ecological information**

12.1. Toxicity

Toxicity: 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 bodies or sewage system.

Aquatic toxicity (acute): No further relevant information available.

12.2. Persistence and degradability

Persistence and degradability: No further relevant information available

12.3. Bioaccumulative potential

Bioaccumulative potential: No further relevant information available

12.4. Mobility in soil

Mobility in soil: No further relevant information available

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment: PBT: Not applicable
                                 vPvB: Not applicable

12.6. Other adverse effects

General comments: No further relevant information available.

**SECTION 13: Disposal considerations**

13.1. Waste treatment methods

Product disposal: Recommendation
- Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- The waste code numbers mentioned are recommendations based on the probable use of the product
  - [European waste catalogue](#)
# SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010
Dental Use

## Ultradent® LC Block-Out Resin

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>08 00 00</td>
<td>WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS</td>
</tr>
<tr>
<td>08 04 00</td>
<td>wastes from MFSU of adhesives and sealants (including waterproofing products)</td>
</tr>
<tr>
<td>08 04 10</td>
<td>waste adhesives and sealants other than those mentioned in 08 04 09</td>
</tr>
</tbody>
</table>

Uncleaned packagings
Recommendation: Dispose of packaging according to regulations on the disposal of packagings.

## SECTION 14: Transport information

### 14.1. UN number

<table>
<thead>
<tr>
<th>UN number</th>
<th>Void</th>
</tr>
</thead>
</table>

### 14.2. UN proper shipping name

<table>
<thead>
<tr>
<th>UN proper shipping name</th>
<th>Void</th>
</tr>
</thead>
</table>

### 14.3. Transport hazard class(es)

<table>
<thead>
<tr>
<th>Hazard classification</th>
<th>Void</th>
</tr>
</thead>
</table>

### 14.4. Packing group

<table>
<thead>
<tr>
<th>Packing group</th>
<th>Void</th>
</tr>
</thead>
</table>

### 14.5. Environmental hazards

<table>
<thead>
<tr>
<th>Marine pollutant #1</th>
<th>NAP</th>
</tr>
</thead>
</table>

### 14.6. Special precautions for user

<table>
<thead>
<tr>
<th>ADR - road</th>
<th>NAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>RID - rail</td>
<td>NAP</td>
</tr>
<tr>
<td>IMDG - sea</td>
<td>NAP</td>
</tr>
<tr>
<td>IATA - air</td>
<td>NAP</td>
</tr>
</tbody>
</table>

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

<table>
<thead>
<tr>
<th>Transport in bulk</th>
<th>NAP</th>
</tr>
</thead>
</table>

## SECTION 15: Regulatory information

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

<table>
<thead>
<tr>
<th>General information</th>
<th>Labelling according to Regulation (EC) No 1272/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The product is classified and labelled according to the CLP regulation.</td>
</tr>
<tr>
<td></td>
<td>Pictogram: GHS07</td>
</tr>
<tr>
<td></td>
<td>Signal word: Warning</td>
</tr>
</tbody>
</table>
Hazard-determining components of labelling:
7,7,9(or 7, 9,9)-trimethyl-4, 13-dioxo-3, 14-dioxo-5, 12-diazahexadecane-1, 16-diyl bismethacrylate 2,2'-ethylenedioxydiethyl dimethacrylate.

Hazard statements
H317 May cause all allergic skin reaction.

Precautionary statements
P261 Avoid breathing vapours.
P280 Wear protective gloves/ eye protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P363 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Directive 2012/18/EU
Named dangerous substances - ANNEX 1 None of the ingredients is listed.
REGULATION (EC) No 1907/2006 ANNEX XV11 Conditions of restrictions: 3

National regulations

Information about limitation of use:
Employment restrictions concerning young persons must be observed.

Water hazard class: Water hazard class 1 (Self-assessment) : slightly hazardous for water.

Substances of very high concern (SVHC) according to REACH, Article 57
Contains none of the ingredients.

15.2. Chemical safety assessment

Chemical safety assessment : See Section 11
Additional information : None of the ingredients are listed as a carcinogen by IARC, NTP, or CA Prop 65.
This product is not considered dangerous for transportation.

SECTION 16: Other information

Relevant H-statements (number and full text) : Skin Sens., Cat. 1B: Skin Sensitization, Category 1B
Skin Sens., Cat. 1: Skin Sensitization, Category 1
H317: May cause an allergic skin reaction.

Prepared by : Anu Kattoju
Revision summary : This SDS replaces the 03/24/2016 SDS. Revised: Section 1: Date-Revised. Section 3: Wt.%.
Section 14: Packing group.

General statements : NAP = Not Applicable
NE = Not Established
Ultradent® LC Block-Out Resin

TLV = Threshold Limit Value
PEL = Permittable exposure limits
MAK = Maximum Workplace Concentration
STEL = Short-term exposure limit
STEV = Short-term exposure value
TWA = Time Weighted Average
PPE = Personal Protective Equipment
AMU = Atomic Mass Unit

Manufacturer disclaimer: FOR DENTAL USE ONLY: Use as directed. The information and recommendations are taken from sources (raw material SDS(s) and manufacturer's knowledge) believed to be accurate; however, the manufacturer makes no warranty with respect to the accuracy of the information or the suitability of the recommendation and assumes no liability to any user thereof. Each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.