

# SAFETY DATA SHEET

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

**ULTRADENT**  
PRODUCTS, INC.

Date Issued : 02/27/2006  
SDS No : 30-001.9  
Date Revised : 12/07/2016  
Revision No : 9

## 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]

: The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

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

#### 2.2. Label elements

##### 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.

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**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

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

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

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alcohol-resistant foam.

**For safety reason unsuitable extinguishing agents** Water with a full water jet.

### 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 (NO<sub>x</sub>), 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)

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**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

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|  |                                     |
|--|-------------------------------------|
| 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 LD<sub>50</sub> : > 2200 mg/kg Rabbit/Rat/Mouse

Notes : ~77% of the mixture consists of components of unknown toxicity (dermal)

Oral LD<sub>50</sub> : > 2300 mg/kg Rat

Notes : ~1% of the mixture consists of components of unknown toxicity (Oral).

Inhalation LC<sub>50</sub> : > 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.

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

**SECTION 12: Ecological information**

**12.1. Toxicity**

|                                 |   |
|---------------------------------|---|
| <b>Toxicity</b>                 | : General notes:<br>Water hazard class 1 (German Regulation) (Self-assessment); slightly hazardous for water.<br>Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. |
| <b>Aquatic toxicity (acute)</b> | : No further relevant information available.  |

**12.2. Persistence and degradability**

|                                      |   |
|--------------------------------------|---|
| <b>Persistence and degradability</b> | : No further relevant information available |
|--------------------------------------|---|

**12.3. Bioaccumulative potential**

|                                  |   |
|----------------------------------|---|
| <b>Bioaccumulative potential</b> | : No further relevant information available |
|----------------------------------|---|

**12.4. Mobility in soil**

|                         |   |
|-------------------------|---|
| <b>Mobility in soil</b> | : No further relevant information available |
|-------------------------|---|

**12.5. Results of PBT and vPvB assessment**

|   |   |
|---|---|
| <b>Results of PBT and vPvB assessment</b> | : <b>PBT</b> : Not applicable<br><b>vPvB</b> : Not applicable |
|---|---|

**12.6. Other adverse effects**

|                         |  |
|-------------------------|--|
| <b>General comments</b> | : No further relevant information available. |
|-------------------------|--|

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

|                         |   |
|-------------------------|---|
| <b>Product disposal</b> | : Recommendation<br>Must not be disposed of together with household garbage. Do not allow product to reach sewage system.<br>The waste code numbers mentioned are recommendations based on the probable use of the product<br><b>European waste catalogue</b> |
|-------------------------|---|

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|                |  |
|----------------|--|
| 08<br>00<br>00 | WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS(pAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS |
| 08<br>04<br>00 | wastes from MFSU of adhesives and sealants (including waterproofing products)  |
| 08<br>04<br>10 | waste adhesives and sealants other than those mentioned in 08 04 09  |

Uncleaned packagings

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

**SECTION 14: Transport information****14.1. UN number**

UN number : Void

**14.2. UN proper shipping name**

UN proper shipping name : Void

**14.3. Transport hazard class(es)**

Hazard classification : Void

**14.4. Packing group**

Packing group : Void

**14.5. Environmental hazards**

Marine pollutant #1 : NAP

**14.6. Special precautions for user**

ADR - road : NAP

RID - rail : NAP

IMDG - sea : NAP

IATA - air : NAP

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

Transport in bulk : NAP

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

General information

: Labelling according to Regulation (EC) No 1272/2008

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

Pictogram: GHS07

Signal word Warning

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**Ultradent® LC Block-Out Resin****Hazard-determining components of labelling:**

7,7,9(or7 , 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.

|  |
|--|
| <b>Substances of very high concern (SVHC) according to REACH, Article 57</b> |
|--|

|                                   |
|-----------------------------------|
| 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



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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.