

Safety Data Sheet
acc. to OSHA HCS

Printing date 04/05/2018

Reviewed on 04/05/2018

1 Identification

- **Product identifier**
- **Trade name:** Lumilux Blue LZ Concentrate
- **Article number:** 71158
- **Index number:** SDS 418-001.01
- **Application of the substance / the mixture** *Internal Use Only*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 - Ultradent Products
 - 505 W Ultradent Drive (10200 South)
 - South Jordan, UT 84095
 - Email : customerservice@ultradent.com
 - Phone: 1-888-230-1420
- **Information department:** *Customer Service*
- **Emergency telephone number:**
 - CHEMTREC (NORTH AMERICA) : (800) 424-9300
 - (INTERNATIONAL) : +(703) 527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



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

- **Label elements**
- **GHS label elements** *The product is classified and labeled according to the Globally Harmonized System (GHS).*
- **Hazard pictograms**



- **Signal word** *Warning*
- **Hazard-determining components of labeling:**
Triethylene Glycol Dimethacrylate
- **Hazard statements**
May cause an allergic skin reaction.
- **Precautionary statements**
 - Avoid breathing dust/fume/gas/mist/vapors/spray*
 - Contaminated work clothing must not be allowed out of the workplace.*
 - Wear protective gloves.*
 - If on skin: Wash with plenty of water.*
 - If skin irritation or rash occurs: Get medical advice/attention.*
 - Specific treatment (see on this label).*
 - Wash contaminated clothing before reuse.*
 - Dispose of contents/container in accordance with local/regional/national/international regulations.*

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

| | | |
|------------|---|----------------|
| HEALTH | 0 | Health = 0 |
| FIRE | 1 | Fire = 1 |
| REACTIVITY | 0 | Reactivity = 0 |

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

| | | |
|-------------|-----------------------------------|-----------|
| | 0.7 BAO Glass 8235 | >50-≤100% |
| 109-16-0 | Triethylene Glycol Dimethacrylate | >2.5-≤10% |
| 658084-52-5 | Lumilux Blue LZ | ≤2.5% |

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.

- **Protective Action Criteria for Chemicals**

| | | |
|-----------------|-----------------------------------|-------------------------|
| · PAC-1: | | |
| 109-16-0 | Triethylene Glycol Dimethacrylate | 33 mg/m ³ |
| 1344-28-1 | Aluminium Oxide | 15 mg/m ³ |
| · PAC-2: | | |
| 109-16-0 | Triethylene Glycol Dimethacrylate | 360 mg/m ³ |
| 1344-28-1 | Aluminium Oxide | 170 mg/m ³ |
| · PAC-3: | | |
| 109-16-0 | Triethylene Glycol Dimethacrylate | 2,100 mg/m ³ |
| 1344-28-1 | Aluminium Oxide | 990 mg/m ³ |

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** Internal Use Only

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

| | |
|---|--|
| · Components with limit values that require monitoring at the workplace: | |
| 0.7 BAO Glass 8235 | |
| TLV | Short-term value: 3* 10* mg/m ³ |
| 658084-52-5 Lumilux Blue LZ | |
| PEL | Short-term value: 15* 5 mg/m ³ |
| TLV | Short-term value: 10* 3* mg/m ³ |
| TWA | Short-term value: 10* 3* mg/m ³ |

- **Additional information:** The lists that were valid during the creation were used as basis.

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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 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 protection:** Goggles recommended during refilling.
- **Body protection:** Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

| | |
|------------------------|-----------------|
| Form: | Liquid |
| Color: | Light yellow |
| Odor: | Acrylic |
| Odor threshold: | Not determined. |

· **pH-value:** Not applicable (non-aqueous)

· Change in condition

| | |
|-------------------------------------|---------------|
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | Undetermined. |

· **Flash point:** >150 °C

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· Explosion limits:

| | |
|---------------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

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| | |
|---|--|
| · Vapor pressure: | Not determined. |
| · Density: | Not determined. |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| VOC content: | 0.00 % 0.0 g/l / 0.00 lb/gl |
| · Solids content: | <80.0 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)

| | | |
|--------|------|-----------------------|
| Dermal | LD50 | >21,225 mg/kg (mouse) |
|--------|------|-----------------------|

109-16-0 Triethylene Glycol Dimethacrylate

| | | |
|--------|-----------|-------------------------------------|
| Oral | LD50 | >5,000 mg/kg (rat) |
| | LC50 Fish | 16.4 mg/l (Fish) (Toxicity to fish) |
| Dermal | LD50 | >2,000 mg/kg (mouse) |

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| | | |
|------|------|---------------------|
| Oral | LD50 | >20,000 mg/kg (rat) |
|------|------|---------------------|

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

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· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

| | | |
|----------|-----|---|
| 128-37-0 | BHT | 3 |
|----------|-----|---|

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

109-16-0 Triethylene Glycol Dimethacrylate

| | |
|---------------|--|
| Aqua toxicity | 32 mg/l (daphnia) (No Observed Effect Concentration) |
|---------------|--|

| | |
|------|---------------------------------------|
| EC50 | >100 mg/l (Algae) (Toxicity to algae) |
|------|---------------------------------------|

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (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.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**

· **DOT, ADN, IMDG, IATA** not regulated

· **UN proper shipping name**

· **DOT, ADN, IMDG, IATA** not regulated

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- | | |
|---|-----------------|
| · Transport hazard class(es) | |
| · DOT, ADN, IMDG, IATA | |
| · Class | not regulated |
| · Packing group | |
| · DOT, IMDG, IATA | not regulated |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | not regulated |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

1344-28-1 Aluminium Oxide

· **TSCA (Toxic Substances Control Act):**

1565-94-2 Bisphenol A Diglycidyl Methacrylate (Bis GMA)

109-16-0 Triethylene Glycol Dimethacrylate

1344-28-1 Aluminium Oxide

10287-53-3 Ethyl-4-Dimethylamino Benzoate (EDMAB)

128-37-0 BHT

10373-78-1 Camphorquinone

· **TSCA new (21st Century Act) (Substances not listed)**

0.7 BAO Glass 8235

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· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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| · TLV (Threshold Limit Value established by ACGIH) | | |
|---|-----------------|----|
| 1344-28-1 | Aluminium Oxide | A4 |
| 128-37-0 | BHT | A4 |

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**
Triethylene Glycol Dimethacrylate
- **Hazard statements**
May cause an allergic skin reaction.
- **Precautionary statements**
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves.
If on skin: Wash with plenty of water.
If skin irritation or rash occurs: Get medical advice/attention.
Specific treatment (see on this label).
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Regulatory Affairs
- **Contact:** Customer Service
- **Date of preparation / last revision** 04/05/2018 / -
- **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
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health

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Trade name: Lumilux Blue LZ Concentrate

TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Skin Sens. 1: Skin sensitisation – Category 1

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