



Safety Data Sheet

acc. to OSHA HCS

Printing date 06/09/2025

Reviewed on 06/09/2025

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1 Identification

- **Product identifier**
- **Trade name:** Opal™ Bond™ MV
- **Article number:** SDS 368-001.06R01, 71025, 500066, 500067, 500067-JP, 500084, 50204, 1000283
- **Application of the substance / the mixture** Professional Orthodontic Adhesive
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Ultradent Products Inc.
505 W. Ultradent Drive (10200 S)
South Jordan, UT 84095-3942
USA
onlineordersupport@ultradent.com
- **Information department:** Customer Service
- **Emergency telephone number:**
CHEMTREC (NORTH AMERICA) : +1 (800) 424-9300
(INTERNATIONAL) : +(703) 527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Toxic to Reproduction 1B H360 May damage fertility or the unborn child.



GHS07

Sensitization - Skin 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** GHS07, GHS08
- **Signal word** Danger
- **Health Hazard-determining components of labeling:**
Diurethane Dimethacrylate
Ethyl-4-Dimethylamino Benzoate
Triethylene Glycol Dimethacrylate
2-Hydroxyethyl Methacrylate
- **Hazard statements**
H317 May cause an allergic skin reaction.
H360 May damage fertility or the unborn child.
- **Precautionary statements**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 If on skin: Wash with plenty of water.

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*P308+P313 IF exposed or concerned: Get medical advice/attention.**P321 Specific treatment (see on this label).**P333+P313 If skin irritation or rash occurs: Get medical advice/attention.**P363 Wash contaminated clothing before reuse.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 1

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

3 Composition/information on ingredients

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

	Trade Secret	>2.5-≤10%
72869-86-4	Diurethane Dimethacrylate	>2.5-≤10%
14808-60-7	Silica Glass	>2.5-≤10%
2530-85-0	Silane	≥0-<10%
109-16-0	Triethylene Glycol Dimethacrylate	≤2.5%
868-77-9	2-Hydroxyethyl Methacrylate	≥0-≤2.5%
10287-53-3	Ethyl-4-Dimethylamino Benzoate	≥0.1-<25%

· **Additional information:**

The specific chemical identity of composition is being withheld as a trade secret. The specific chemical identity is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of paragraph §1910.1200.

4 First-aid measures

· **Description of first aid measures**· **After inhalation:***This product is a thick paste, therefore inhalation is extremely unlikely.**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:***If skin irritation continues, consult a doctor.**Immediately wash with water and soap and rinse thoroughly.*· **After eye contact:** Rinse opened eye for several minutes under running water.· **After swallowing:** Do NOT induce vomiting.· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Foam
Dry Chemical
Carbon dioxide
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:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

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:**
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **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:**
Protect from exposure to the light.
Protect from heat
See product labelling.
Keep receptacle tightly sealed.
- **Specific end use(s)** Professional Orthodontic Adhesive

8 Exposure controls/personal protection

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

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- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

Trade Secret

PEL	Long-term value: 15*; 5** mg/m ³ *Total dust; ** Respirable fraction
REL	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV	Long-term value: 1* mg/m ³ as Al; *as respirable fraction, A4

14808-60-7 Silica Glass

PEL	Long-term value: 0.05* mg/m ³ *resp. dust; 30mg/m ³ /SiO ₂ +2
REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *respirable particulate matter, A2

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

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **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 is based on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of 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 breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Not required.

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· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**· **Form:** Paste· **Color:** Whitish· **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:** Not applicable· **Flammability:** Not determined.· **Decomposition temperature:** Not determined.· **Ignition temperature:** Product is not selfigniting.· **Danger of explosion:** Product does not present an explosion hazard.· **Explosion limits:**· **Lower:** Not determined.· **Upper:** Not determined.· **Vapor pressure:** Not applicable.· **Density at 20 °C:** 2.03 g/cm³· **Relative density** Not determined· **Vapor density** Not applicable.· **Evaporation rate** Not applicable.· **Solubility in / Miscibility with**· **Water:** Insoluble.· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**· **Dynamic:** Not applicable.· **Kinematic:** Not applicable.· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity** Stable· **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**

Light

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Ignition sources

Flames

Heat

· **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)**

Inhalative	LC50/4 h	20.9-34.8 mg/l
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Trade Secret

Oral	LD50	> 5,000 mg/kg (rat)
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72869-86-4 Diurethane Dimethacrylate

Oral	LD50	> 5,000 mg/kg (rat)
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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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868-77-9 2-Hydroxyethyl Methacrylate

Oral	LD50	3,275 mg/kg (mouse)
		> 5,000 mg/kg (rat)
	LC50 Fish	> 100 mg/l (Fish)
Dermal	LD50	> 3,000 mg/kg (rabbit)
	LC50(Daphnia magna)	24.1 mg/l (daphnia)

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

14808-60-7	Silica Glass	1
128-37-0	Butylated Hydroxytoluene	3

· **NTP (National Toxicology Program)**

14808-60-7	Silica Glass	K
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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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12 Ecological information

· Toxicity

· Aquatic toxicity:

72869-86-4 Diurethane Dimethacrylate

EC50 >0.6 mg/kg (Algae)

Biodegradability 28 days (Aerobic) (Biodegradability testing)

109-16-0 Triethylene Glycol Dimethacrylate

EC50 >100 mg/kg (Algae)

Biodegradability 28 days (Aerobic) (Biodegradability testing)

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

868-77-9 2-Hydroxyethyl Methacrylate

EC50 345 mg/kg (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:**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Dispose of contents/container in accordance with international, federal, state, and local regulations.

· **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

· **Transport hazard class(es)**· **DOT, ADN, IMDG, IATA**· **Class**

Not Regulated

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- | | |
|---|-----------------|
| · 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**
No further relevant information available.
- **Sara**

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

Trade Secret

· TSCA (Toxic Substances Control Act):

	Trade Secret	ACTIVE
72869-86-4	Diurethane Dimethacrylate	ACTIVE
14808-60-7	Silica Glass	ACTIVE
2530-85-0	Silane	ACTIVE
109-16-0	Triethylene Glycol Dimethacrylate	ACTIVE
868-77-9	2-Hydroxyethyl Methacrylate	ACTIVE
10287-53-3	Ethyl-4-Dimethylamino Benzoate	ACTIVE

· Hazardous Air Pollutants

None of the ingredients is listed.

· Proposition 65

· Chemicals known to cause cancer:

14808-60-7 Silica Glass

· 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.

· ACGIH Carcinogenicity (American Conference of Governmental Industrial Hygienists)

	Trade Secret	A4
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14808-60-7	Silica Glass	A2
128-37-0	Butylated Hydroxytoluene	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

14808-60-7	Silica Glass
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· **Chemical safety assessment:**

Device is biocompatible when used as directed by dental professionals per ISO 10993-1

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:** Environmental, Health, and Safety· **Contact:** Customer Service· **Date of preparation / last revision** 06/09/2025 / -· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

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

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Sensitization - Skin 1: Skin sensitisation – Category 1

Toxic to Reproduction 1B: Reproductive toxicity – Category 1B

· *** Data compared to the previous version altered.**

US