



Safety Data Sheet according to WHS Regulations

Date of issue: 23.07.2025

Revision: 23.07.2025

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1 Identification

- **Other means of identification**
- **Trade name:** Opal™ Seal™
- **Article number:** SDS 265-001.10R01, 71022, 50159, 50176, 500061, 500061-JP, 500062, 500063
- **Relevant identified uses of the substance or mixture and uses advised against**
Professionelle Kieferorthopädische Grundierung und Versiegelung
- **Application of the substance / the mixture** *Professional Orthodontic Primer and Sealant*
- **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
(800) 552-5512

Ultradent Australia Pty Ltd.
Level 22/2 Market Street
Sydney NSW 2000
Australia
Email: info.anz@ultradent.com
Toll Free: 1-800-290929
- **Further information obtainable from:** 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**



flame

Flammable liquids – Category 3

H226 Flammable liquid and vapour.



health hazard

Reproductive toxicity – Category 1B

H360 May damage fertility or the unborn child.



corrosion

Skin corrosion/irritation – Category 1A

H314 Causes severe skin burns and eye damage.

Eye damage/irritation – Category 1

H318 Causes serious eye damage.

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Skin sensitisation – Category 1

H317 May cause an allergic skin reaction.

Specific target organ toxicity (single exposure) – Category 3

H335 May cause respiratory irritation.

· **Label elements**· **GHS label elements** Void· **Hazard pictograms** GHS02, GHS05, GHS07, GHS08· **Signal word** Danger· **Hazard-determining components of labelling:**

Methacrylic Acid (≥5-<10 %)

Hydroxypropyl Methacrylate (10-<30 %)

Ethyl-4-Dimethylamino Benzoate (≥0.3-<10 %)

Trade Secret (≥1-<5 %)

· **Hazard statements**

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H360 May damage fertility or the unborn child.

H335 May cause respiratory irritation.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition and Information on Ingredients

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

27813-02-1	Hydroxypropyl Methacrylate	10-<30%
	⚠ Eye damage/irritation – Category 2A, H319; Skin sensitisation – Category 1, H317	
64-17-5	Ethyl Alcohol	<10%
	⚠ Flammable liquids – Category 2, H225; ⚠ Eye damage/irritation – Category 2A, H319	
1830-78-0	Glycerol Dimethacrylate	<10%
	⚠ Skin corrosion/irritation – Category 2, H315; Eye damage/irritation – Category 2A, H319; Specific target organ toxicity (single exposure) – Category 3, H335	

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79-41-4	Methacrylic Acid	≥5-<10%
	Acute toxicity - dermal – Category 3, H311; Skin corrosion/irritation – Category 1A, H314; Eye damage/irritation – Category 1, H318; Acute toxicity - oral – Category 4, H302; Acute toxicity - inhalation – Category 4, H332; Specific target organ toxicity (single exposure) – Category 3, H335; Flammable liquids – Category 4, H227	
	Trade Secret	≥1-<5%
	Skin corrosion/irritation – Category 1A, H314	
10287-53-3	Ethyl-4-Dimethylamino Benzoate	≥0.3-<10%
	Reproductive toxicity – Category 1B, H360	
	Organophosphine Oxide	≥0.1-<1%
	Skin sensitisation – Category 1, H317	

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First Aid Measures

- **General information:** Immediately remove any clothing soiled by the product.
- **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. Then consult a doctor.
- **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **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

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **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).
Use neutralising agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.

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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.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **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:**
See product labelling.
Keep container tightly sealed.
- **Specific end use(s)** Professional Orthodontic Primer and Sealant

8 Exposure controls and personal protection

- **Appropriate engineering controls** No further data; see section 7.
 - **Ingredients with limit values that require monitoring at the workplace:**
- | | |
|---------------------------------|--|
| 64-17-5 Ethyl Alcohol | |
| WES | Long-term value: 1880 mg/m ³ , 1000 ppm |
| 79-41-4 Methacrylic Acid | |
| WES | Long-term value: 70 mg/m ³ , 20 ppm |

- **Additional information:** The lists valid during the making were used as basis.
- **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.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **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.

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Selection of the glove material 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:**



Tightly sealed goggles

· **Body protection:** *Protective work clothing*

9 Physical and Chemical Properties

· **General Information**

· **Appearance:**

· **Form:**

Viscous Liquid

· **Colour:**

Yellow

· **Odour:**

Acrylic

· **Odour threshold:**

Not determined.

· **pH-value:**

Not applicable (non-aqueous)

· **Change in condition**

· **Melting point/freezing point:**

Undetermined.

· **Initial boiling point and boiling range:**

Undetermined.

· **Flash point:**

37 °C

· **Flammability**

Flammable.

· **Decomposition temperature:**

Not determined.

· **Ignition temperature:**

Product is not selfigniting.

· **Explosive properties:**

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Vapour pressure:**

Not determined.

· **Density:**

Not determined.

· **Relative density**

Not determined.

· **Vapour 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.

· **Other information**

· **Particle characteristics**

Not applicable.

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· **Physical state**

Fluid

10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **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** Based on available data, the classification criteria are not met.

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

ATE (Acute Toxicity Estimates)

Oral	LD50	17,667 mg/kg
Dermal	LD50	8,333 mg/kg (rabbit)
Inhalative	LC50/4 h	118 mg/l

64-17-5 Ethyl Alcohol

Oral	LD50	5,600 mg/kg (guinea pig)
		3,400 mg/kg (mouse)
		7,060 mg/kg (rat)
Inhalative	LC50 Fish	>10,000 mg/l (Fish)
	LC50/4 h	39 mg/l (mouse)
		20,000 mg/l (rat)

79-41-4 Methacrylic Acid

Oral	LD50	1,250 mg/kg (mouse)
		1,060 mg/kg (rat)
		1,200 mg/kg (rabbit)
Dermal	LC50 Fish	86 mg/l (Fish)
	LD50	1,000 mg/kg (guinea pig)
		500 mg/kg (rabbit)
Inhalative	LC50/4 h	7.1 mg/l (rat)

Organophosphine Oxide

Oral	LD50	>2,000 mg/kg (rat)
	LC50 Fish	>0.09 mg/l (Fish) (Toxicity to fish)
Dermal	LD50	>2,000 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
- **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.

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- **Reproductive toxicity** May damage fertility or the unborn child.
- **STOT-single exposure** May cause respiratory irritation.
- **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.

12 Ecological Information

· Toxicity

· Aquatic toxicity:

64-17-5 Ethyl Alcohol

Algae Toxicity	1,000 mg/l (Algae)
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79-41-4 Methacrylic Acid

EC50	17,000 mg/kg (Algae) <180 mg/kg (daphnia) (Toxicity to aquatic invertebrates)
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Organophosphine Oxide

EC50 (static)	>1.175 mg/kg (daphnia) (Toxicity to aquatic invertebrates)
Aqua toxicity	≥0.008 mg/l (daphnia) (Daphnia Magna Reproduction Test)
Toxicity to Aquatic Plants (static)	>0.26 mg/l (Plant) (Toxicity to algae)

- **Persistence and degradability** No further relevant information available.
- **Behaviour 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 (German Regulation) (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.
 Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **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 together with household garbage. Do not allow product to reach sewage system.
 Dispose of contents/container in accordance with international, federal, state, and local regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--------------------------|--------|
| · UN-Number | UN2924 |
| · ADG, IMDG, IATA | |

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· **UN proper shipping name**· **ADG**2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(METHACRYLIC ACID, STABILIZED, Ethyl Alcohol)· **IMDG, IATA**FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(METHACRYLIC ACID, STABILIZED, Ethyl Alcohol)· **Transport hazard class(es)**· **ADG**· **Class**

3 Flammable liquids.

· **Label**

3+8

· **IMDG**· **Class**

3 Flammable liquids.

· **Label**

3/8

· **IATA**· **Class**

3 Flammable liquids.

· **Label**

3 (8)

· **Packing group**· **ADG, IMDG, IATA**

II

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Flammable liquids.

· **Hazard identification number (Kemler code):**

38

· **EMS Number:**

F-E,S-C

· **Stowage Category**

B

· **Stowage Code**

SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **ADG**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **Transport category**

2

· **Tunnel restriction code**

D/E

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· IMDG	
· Limited quantities (LQ)	IL
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHACRYLIC ACID, STABILIZED, ETHYL ALCOHOL), 3 (8), II

15 Regulatory information

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

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

None of the ingredients is listed.

· **Australian Inventory of Industrial Chemicals**

65997-17-3 Inorganic Glass

27813-02-1 Hydroxypropyl Methacrylate

64-17-5 Ethyl Alcohol

79-41-4 Methacrylic Acid

Trade Secret

Trade Secret

10287-53-3 Ethyl-4-Dimethylamino Benzoate

Organophosphine Oxide

2530-85-0 Silane

10373-78-1 Camphorquinone

· **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category P5c FLAMMABLE LIQUIDS**

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

· **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.

· **Relevant phrases from Section 3**

H225 Highly flammable liquid and vapour.

H227 Combustible liquid.

H302 Harmful if swallowed.

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H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H360 May damage fertility or the unborn child.

· **Department issuing SDS:** Environmental, Health, and Safety

· **Contact:** Customer Service

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

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)

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

Flammable liquids – Category 2: Flammable liquids – Category 2

Flammable liquids – Category 3: Flammable liquids – Category 3

Flammable liquids – Category 4: Flammable liquids – Category 4

Acute toxicity - oral – Category 4: Acute toxicity – Category 4

Acute toxicity - dermal – Category 3: Acute toxicity – Category 3

Skin corrosion/irritation – Category 1A: Skin corrosion/irritation – Category 1A

Skin corrosion/irritation – Category 2: Skin corrosion/irritation – Category 2

Eye damage/irritation – Category 1: Serious eye damage/eye irritation – Category 1

Eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A

Skin sensitisation – Category 1: Skin sensitisation – Category 1

Reproductive toxicity – Category 1B: Reproductive toxicity – Category 1B

Specific target organ toxicity (single exposure) – Category 3: Specific target organ toxicity (single exposure) – Category 3

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

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