

Safety Data Sheet
acc. to OSHA HCS

Printing date 08/23/2022

Reviewed on 08/23/2022

1 Identification

- **Product identifier**
- **Trade name:** *Ultradent™ Universal Dentin Sealant*
- **Article number:** *SDS 142-001.08, 10344*
- **Application of the substance / the mixture** *Professional Dentin 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*
- **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**

*GHS02 Flame**Flammable Liquids 2 H225 Highly flammable liquid and vapor.*

- **Label elements**
- **GHS label elements** *Void*
- **Hazard pictograms** *GHS02*
- **Signal word** *Danger*
- **Hazard statements**
H225 Highly flammable liquid and vapor.
- **Precautionary statements**
 - P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*
 - P233 Keep container tightly closed.*
 - P240 Ground/bond container and receiving equipment.*
 - P241 Use explosion-proof electrical/ventilating/lighting/equipment.*
 - P242 Use only non-sparking tools.*
 - P243 Take precautionary measures against static discharge.*
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.*
 - P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*
 - P370+P378 In case of fire: Use CO2, powder or water spray to extinguish.*
 - P403+P235 Store in a well-ventilated place. Keep cool.*
 - P501 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)**



3 Composition/information on ingredients

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

- **Dangerous components:**

64-17-5 Ethyl Alcohol	≥0-<90%
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4 First-aid measures

- **Description of first aid measures**
- **General information:**
Show this safety data sheet to the doctor in attendance. When symptoms persist or in all cases of doubt seek medical advice.
Immediately remove any clothing soiled by the product.
- **After inhalation:**
Immediate medical attention is required. Move to fresh air. If not breathing, give artificial respiration. Consult a physician.
- **After skin contact:**
Wash off immediately with soap and plenty of water. Remove all contaminated clothes and shoes. Use a mild soap if available. Call a physician if irritation develops or persists.
Immediately rinse with water.
- **After eye contact:**
Remove contact lenses, if present. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation develops or persists.
- **After swallowing:**
Rinse mouth with water and afterwards drink plenty of water or milk. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
See Section 2.2, Label Elements and/or Section 11, Toxicological effects.
- **Indication of any immediate medical attention and special treatment needed** Treat symptomatically.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use water spray, fog, carbon dioxide (CO₂), foam or dry chemical.

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- **Special hazards arising from the substance or mixture**
*Hazardous decomposition products formed under fire conditions. Flash back possible over considerable distance.
 Hazardous Combustion Products: No information available.
 Explosion Data:
 Sensitivity to Mechanical Impact: None.
 Sensitivity to Static Discharge: None.*
- **Advice for firefighters**
- **Protective equipment:**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
*Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist.
 Wear protective equipment. Keep unprotected persons away.*
- **Environmental precautions:**
*Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. See Section 12 for additional Ecological information.
 Dilute with plenty of water.
 Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**
*Methods for Containment: Prevent further leakage or spillage if safe to do so.
 Methods for cleaning up: Pick up and transfer to properly labeled containers
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose contaminated material as waste according to item 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**
*Advice on safe handling: Keep containers tightly closed in a dry, cool and well-ventilated place.
 Hygiene measures: When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use.*
- **Information about protection against explosions and fires:**
*Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
*Storage Conditions: Keep locked up or in an area accessible only to qualified or authorized persons. Store between 41 and 77 °F (5 - 25° C) in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Store in original container.
 Store in a cool location.*
- **Information about storage in one common storage facility:** *Not required.*

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- **Further information about storage conditions:**
See product labelling.
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** Professional Dentin Sealant

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:**

64-17-5 Ethyl Alcohol

PEL	Long-term value: 1900 mg/m ³ , 1000 ppm
REL	Long-term value: 1900 mg/m ³ , 1000 ppm
STEL	Short-term value: 1000 mg/m ³
TLV	Short-term value: 1000 ppm A3
TWA	Short-term value: 1900 mg/m ³

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Engineering Measures: Ensure adequate ventilation, especially in confined areas.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
- **Breathing equipment:**
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
- **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.

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- **Eye protection:**
Safety glasses with side shields.



Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Liquid
Color:	Yellow-brown
Odor:	Pleasant
Odor threshold:	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range:	-114 °C
Boiling point/Boiling range:	78 °C

- **Flash point:** 11 °C

- **Flammability (solid, gaseous):** Highly flammable.

- **Decomposition temperature:** Not determined.

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

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

- **Vapor pressure at 20 °C:** 59.6 hPa

- **Density at 20 °C:** 0.916-1.02 g/cm³

- **Relative density** Not determined

- **Vapor density at 20 °C** 1.59 g/cm³

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

Water: Fully miscible.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined

- **Solvent content:**

VOC content: ≥50% - ≤70 %
641.2-714 g/l / 5.35-5.96 lb/gal

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VOC (EC)	≥50% - ≤70%
Solids content:	≥30 - ≤50 %
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:** Stable under recommended storage conditions
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Contact with acetyl chloride and a wide range of oxidizers.
- **Incompatible materials:** Strong oxidizing agents
- **Hazardous decomposition products:** Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

11 Toxicological information

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

· LD/LC50 values that are relevant for classification:		
64-17-5 Ethyl Alcohol		
Oral	LD50	5,600 mg/kg (Guinea pig) 3,400 mg/kg (mouse) 7,060 mg/kg (rat)
	LC50 Fish	>10,000 mg/l (Fish)
	Inhalative	LC50/4 h

- **Primary irritant effect:**
- **on the skin:**
 - Product Information
 - May cause irritation and defatting of skin on prolonged contact.
 - Component Information
 - No information available
- **on the eye:**
 - Product Information
 - Liquid or vapor may cause irritation.
 - Component Information
 - No information available
- **Sensitization:**
 - Product Information
 - Exposure to over 1000 ppm may cause headache, drowsiness, vomiting, coughing, dizziness or stupor.
 - Component Information
 - No information available
- **Additional toxicological information:**
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)
All components have the value 1.

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· 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:
64-17-5 Ethyl Alcohol

Algae Toxicity | 1,000 mg/l (Algae)

· Persistence and degradability No information available

· Behavior in environmental systems:
· Bioaccumulative potential

Discharge into the environment must be avoided

Chemical Name log Pow

Ethanol -0.32

64-17-5

· Mobility in soil No 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 Discharge into the environment must be avoided

13 Disposal considerations

· Waste treatment methods
· Recommendation:

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

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

· Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number
· DOT, IMDG, IATA UNI866

· UN proper shipping name
· DOT Resin solution

· IMDG, IATA RESIN SOLUTION

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· **Transport hazard class(es)**· **DOT**

· **Class** 3 Flammable liquids
 · **Label** 3

· **IMDG, IATA**

· **Class** 3 Flammable liquids
 · **Label** 3

· **Packing group**· **DOT, IMDG, IATA** II· **Environmental hazards:** Not Applicable.· **Special precautions for user** Warning: Flammable liquids· **Hazard identification number (Kemler code):** 33· **EMS Number:** F-E, S-E· **Stowage Category** B

· **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not Applicable.

· **Transport/Additional information:**· **DOT**

· **Quantity limitations** On passenger aircraft/rail: 5 L
 On cargo aircraft only: 60 L

· **IMDG**· **Limited quantities (LQ)** 5L· **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 1866 RESIN SOLUTION, 3, II

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):**

None of the ingredients is listed.

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

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **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:**

All ingredients are listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **ACGIH Carcinogenicity (American Conference of Governmental Industrial Hygienists)**

All components have the value A3.

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

None of the ingredients is listed.

· **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** 08/23/2022 / -

· **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)

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

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable Liquids 2: Flammable liquids – Category 2

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