

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/22/2021

Reviewed on 12/22/2020

1 Identification

- **Product identifier**
- **Trade name:** *Mosaic™ Universal Composite (All Shades)*
- **Article number:** SDS 370-001.04, 4780-4799, 4801, S4801, 4802, S4802, 4803, 4760-4799
- **Application of the substance / the mixture** *Professional Dental Restorative Material*
- **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**



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

- **Label elements**
- **GHS label elements** *Void*
- **Hazard pictograms** *GHS07*
- **Signal word** *Warning*
- **Health Hazard-determining components of labeling:**
*Diurethane Dimethacrylate
Triethylene Glycol Dimethacrylate*
- **Hazard statements**
May cause an allergic skin reaction.
- **Precautionary statements**
*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.
P302+P352 If on skin: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P321 Specific treatment (see on this label).
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2021

Reviewed on 12/22/2020

Trade name: Mosaic™ Universal Composite (All Shades)

(Contd. of page 1)

- **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:**

72869-86-4	Diurethane Dimethacrylate	⚠ Skin Sens. 1, H317	≥1-≤10%
109-16-0	Triethylene Glycol Dimethacrylate	⚠ Skin Sens. 1, H317	1-10%

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:**
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:** 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:**
Water spray, fog, or mist, foam, dry chemical, carbon dioxide
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** Carbon Oxides
- **Advice for firefighters**
General: Evacuate all personnel; use protective equipment for fire-fighting. Use self-contained breathing apparatus when the product is involved in fire.
- **Protective equipment:** Wear fully protective suit.

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(Contd. on page 3)

Safety Data Sheet

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Printing date 09/22/2021

Reviewed on 12/22/2020

Trade name: Mosaic™ Universal Composite (All Shades)

(Contd. of page 2)

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
Dilute with plenty of water.
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).
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**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **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:**
Protect from exposure to the light.
Protect from heat
See product labelling.
- **Specific end use(s)** No further relevant information available.

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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **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:**
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.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2021

Reviewed on 12/22/2020

Trade name: Mosaic™ Universal Composite (All Shades)

(Contd. of page 3)

· **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:** 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:	Paste
Color:	Color Dependent
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 (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.

· **Vapor pressure:** Not determined.

Density at 20 °C:	1.9-2.1 g/cm ³
Relative density	Not determined
Vapor density	Not determined.
Evaporation rate	Not determined.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2021

Reviewed on 12/22/2020

Trade name: Mosaic™ Universal Composite (All Shades)

(Contd. of page 4)

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|---|--|
| · 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: | 0.00 %
0.0 g/l / 0.00 lb/gal |
| VOC (EC) | 0.00 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** Polymerization under the influence of light.
- **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**
Flames
Light
Heat
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

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

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

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)

128-37-0 Butylated Hydroxytoluene

Oral	LD50	10,700 mg/kg (Guinea pig)
		1,040 mg/kg (mouse)
		890 mg/kg (rat)
	LC50 Fish	5.3 mg/l (Fish)
Dermal	LD50	>2,000 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2021

Reviewed on 12/22/2020

Trade name: Mosaic™ Universal Composite (All Shades)

(Contd. of page 5)

- **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)**

128-37-0	Butylated Hydroxytoluene	3
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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:**

72869-86-4 Diurethane Dimethacrylate

EC50	>0.6 mg/kg (Algae)
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Biodegradability	28 days (Aerobic) (Biodegradability testing)
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109-16-0 Triethylene Glycol Dimethacrylate

EC50	>100 mg/kg (Algae)
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Biodegradability	28 days (Aerobic) (Biodegradability testing)
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Aqua toxicity	32 mg/l (daphnia) (No Observed Effect Concentration)
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128-37-0 Butylated Hydroxytoluene

Aqua toxicity (static)	0.48 mg/l (daphnia) (Toxicity to aquatic invertebrates)
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- **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.

- **Uncleaned packagings:**

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

(Contd. on page 7)

Safety Data Sheet

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Trade name: Mosaic™ Universal Composite (All Shades)

(Contd. of page 6)

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

14 Transport information

· UN-Number · DOT, IMDG, IATA	Not Regulated
· UN proper shipping name · DOT, IMDG, IATA	Not Regulated
· 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 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.		
· TSCA (Toxic Substances Control Act):		
72869-86-4	Diurethane Dimethacrylate	ACTIVE
109-16-0	Triethylene Glycol Dimethacrylate	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: None of the ingredients is listed.		

(Contd. on page 8)

Safety Data Sheet

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Trade name: Mosaic™ Universal Composite (All Shades)

(Contd. of page 7)

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

128-37-0 Butylated Hydroxytoluene

A4

· **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** 09/22/2021 / -

· **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

Skin Sens. 1: Skin sensitisation – Category 1