

Safety Data Sheet
acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 10/05/2021

1 Identification

- **Product identifier**
- **Trade name:** *PermaFlo™ DC Catalyst*
- **Article number:** SDS 52-001.08, 63698
- **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**



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

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

- **Label elements**
- **GHS label elements** *Void*
- **Hazard pictograms** *GHS07, GHS08*
- **Signal word** *Warning*
- **Health Hazard-determining components of labeling:**
*Triethylene Glycol Dimethacrylate
Amine Methacrylate*
- **Hazard statements**
*Harmful if inhaled.
May cause an allergic skin reaction.
Suspected of damaging 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
P271 Use only outdoors or in a well-ventilated area.*

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 10/05/2021

Trade name: Permaflo™ DC Catalyst

(Contd. of page 1)

- 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.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P312 Call a poison center/doctor if you feel unwell.
 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)**· **HMIS-ratings (scale 0 - 4)**

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

3 Composition/information on ingredients

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

| | | |
|------------|--|-----------|
| 109-16-0 | Triethylene Glycol Dimethacrylate ⚠ Skin Sens. 1, H317 | >10-≤25% |
| | Trade Secret Alternative CAS number: 7631-86-9 | ≥0-≤10% |
| | Amine Methacrylate ⚠ Skin Corr. 1C, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Flam. Liq. 4, H227 | ≥0.1-<1% |
| 75980-60-8 | Diphenyl (2,4,6- trimethylbenzoyl) phosphine oxide ⚠ Repr. 2, H361 | ≥0.1-<25% |

4 First-aid measures

· **Description of first aid measures**· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

This product is a viscous gel, therefore chance of inhalation is extremely low.

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.

(Contd. on page 3)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 10/05/2021

Trade name: Permaflo™ DC Catalyst

(Contd. of page 2)

- *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:**
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 fully protective suit.
Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** *Ensure adequate ventilation*
- **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).
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.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **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:**
See product labelling.
Keep receptacle tightly sealed.
- **Specific end use(s)** *Professional Dental Restorative Material*

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 10/05/2021

Trade name: Permaflo™ DC Catalyst

(Contd. of page 3)

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 following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

Trade Secret

| | |
|-----|---|
| TWA | Short-term value: 0.8 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:**
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:** 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: | Structurally viscous |
| Color: | Beige |
| Odor: | Acrylic |

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 10/05/2021

Trade name: Permaflo™ DC Catalyst

(Contd. of page 4)

| | |
|---|---|
| · 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. |
| · Vapor pressure: | Not determined. |
| · Density at 20 °C: | 1.9-2 g/cm ³ |
| · 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: | ≤0.44 % 8.4-≤8.8 g/l / 0.07 lb/gal |
| VOC (EC) | ≤0.44 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** Polymerization occurs when exposed to visible light, ultraviolet light or extreme heat.
- **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** Visible light, ultraviolet light, and extreme heat
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 10/05/2021

Trade name: Permaflo™ DC Catalyst

(Contd. of page 5)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

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

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) |

Trade Secret

| | | |
|------------|-----------|---|
| Oral | LD50 | >15,000 mg/kg (mouse) >3,300 mg/kg (rat) |
| | LC50 Fish | >10,000 mg/l (Fish) (Toxicity to fish) |
| Dermal | LD50 | >5,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 0.139 mg/l (rat) |

Amine Methacrylate

| | | |
|------------|-----------|----------------------|
| Oral | LD50 | 1,550 mg/kg (rat) |
| | LC50 Fish | 19 mg/l (Fish) |
| Dermal | LD50 | 2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 96 mg/l (rat) |

- **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:

Harmful

Irritant

- **Carcinogenic categories**

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

| | | |
|---------|----------------------|----|
| 64-17-5 | Ethyl Alcohol | I |
| 99-97-8 | Dimethyl-p-toluidine | 2B |

- **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

| | |
|------------------|--|
| EC50 | >100 mg/kg (Algae) |
| Biodegradability | 28 days (Aerobic) (Biodegradability testing) |

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 10/05/2021

Trade name: Permaflo™ DC Catalyst

(Contd. of page 6)

| | |
|---------------------------|--|
| Aqua toxicity | 32 mg/l (daphnia) (No Observed Effect Concentration) |
| Trade Secret | |
| EC50 | >1,000 mg/kg (daphnia) |
| Amine Methacrylate | |
| EC50 | 42 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.
- **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 |
| · 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 |

US

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 10/05/2021

Trade name: Permaflo™ DC Catalyst

(Contd. of page 7)

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):**

| | |
|-----------|-----------------|
| 1344-28-1 | Aluminium Oxide |
|-----------|-----------------|

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

| | | |
|------------|--|--------|
| 109-16-0 | Triethylene Glycol Dimethacrylate | ACTIVE |
| | Amine Methacrylate | ACTIVE |
| 75980-60-8 | Diphenyl (2,4,6- trimethylbenzoyl) phosphine oxide | ACTIVE |

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

| | |
|---------|----------------------|
| 99-97-8 | Dimethyl-p-toluidine |
|---------|----------------------|

· **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:**

| | |
|---------|---------------|
| 64-17-5 | Ethyl Alcohol |
|---------|---------------|

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

| | | |
|-----------|-----------------|----|
| 1344-28-1 | Aluminium Oxide | A4 |
| 64-17-5 | Ethyl Alcohol | 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** 10/05/2021 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

(Contd. on page 9)

Safety Data Sheet
acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 10/05/2021

Trade name: Permaflo™ DC Catalyst

(Contd. of page 8)

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
Flam. Liq. 4: Flammable liquids – Category 4
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Repr. 2: Reproductive toxicity – Category 2

US