ivoclar vivadent:

Safety Data Sheet according to HPR, Schedule 1

Printing date 11/12/2020

Version number 4

Reviewed on 11/12/2020

1 Identification

- · Product identifier
- · Trade name: ProArt Print Splint

• Application of the substance / the mixture Splint material for stereolithography

Details of the supplier of the safety data sheet
Manufacturer/Supplier: Ivoclar Vivadent Inc.
175 Pineview Drive, Amherst, N.Y. 14228 USA
Tel. +1 800 533 6825 Fax +1 716 691 2285

Ivoclar Vivadent Inc. 1-6600 Dixie Road Mississauga, Ontario L5T 2Y2 Canada Phone: +1 905 670 8499 Fax: +1 905 670 3102

Information department: Regulatory Affairs sds@ivoclarvivadent.com Quality Assurance / Regulatory Affairs
Emergency telephone number: +423 / 235 33 13 (Ivoclar Vivadent AG, 9494 Schaan, Liechtenstein) 24 Hour Emergency Assistance: Emergency-Call USA - Infotrac: 1-800-535-5053 Emergency-Call Canada - Canutec: 1-613-996-6666

General SDS Assistance: US: 1-800-533-6825 Canada: 1-800-263-8182

2 Hazard identification

| · Classification of the substance or mixture | |
|--|---|
| Skin Irritation - Category 2 | H315 Causes skin irritation. |
| Eye Irritation - Category 2A | H319 Causes serious eye irritation. |
| Skin Sensitizer - Category 1 | H317 May cause an allergic skin reaction. |
| Reproductive Toxicity - Category 2 | H361 Suspected of damaging fertility or the unborn child. |
| Specific Target Organ Toxicity - Single Exposure - Category 3 | H335 May cause respiratory irritation. |
| • Label elements • GHS label elements The product is classified and labeled according to the | Globally Harmonized System (GHS). (Contd. on page 2) |
| | CA |

Printing date 11/12/2020

Version number 4

Reviewed on 11/12/2020

Trade name: ProArt Print Splint

(Contd. of page 1)

· Hazard pictograms GHS07 GHS08 · Signal word Warning · Hazard-determining components of labeling: triethylene glycol dimethacrylate diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide urethane dimethacrylate Bis-GMA · Hazard statements Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. May cause respiratory irritation. · Precautionary statements Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Dispose of contents/container in accordance with local/regional/national/international regulations. · Classification system: · NFPA ratings (scale 0 - 4) Health = 2Fire = 1Reactivity = 0· HMIS-ratings (scale 0 - 4) HEALTH 2 Health = 2 1 Fire = 1FIRE **REACTIVITY O** Reactivity = 0

3 Composition/Information on ingredients

· Chemical characterization: Mixtures

• Description: Mixture of the substances listed below with nonhazardous additions.

| · Dangerous components: | | |
|---|--|-------------------------|
| CAS: 72162-39-1 | urethane acrylate oligomer | 30-60% w/w * |
| CAS: 109-16-0 | triethylene glycol dimethacrylate | ≥20- <i>≤</i> 30% w/w * |
| | urethane dimethacrylate | 10-30% w/w * |
| CAS: 36425-15-7 | Bis-GMA | 1-5% w/w * |
| CAS: 75980-60-8 | diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide | 0.1-1% w/w * |
| * Actual concentration ranges are withheld as a trade secret. | | |

(Contd. on page 3)

Printing date 11/12/2020

Version number 4

Reviewed on 11/12/2020

Trade name: ProArt Print Splint

(Contd. of page 2)

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:
- Immediately rinse with water.
- If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
- Rinse out mouth and then drink plenty of water.
- Seek medical treatment.
- 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:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures 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).
- · 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
- Only adequately trained personnel should handle this product. 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: Store only in the original receptacle.
- · Information about storage in one common storage facility: Not required.

(Contd. on page 4)

CA

Printing date 11/12/2020

Version number 4

Reviewed on 11/12/2020

Trade name: ProArt Print Splint

(Contd. of page 3)

• Further information about storage conditions:

Keep receptacle tightly sealed.

- Protect from exposure to the light.
- Protect from heat and direct sunlight. 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.

• 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:
- Usual hygienic measures for dental practice and dental laboratories.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

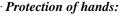
Remove contaminated clothing and wash before reuse.

Avoid contact with the eyes and skin.

• Breathing equipment:

Not necessary if room is well-ventilated.

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.





Protective gloves

After use of gloves apply skin-cleaning agents and skin cosmetics.

• Material of gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- · Penetration time of glove material
- The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- · Not suitable are gloves made of the following materials:
- Commercial medical gloves do not provide protection against the sensitizing effect of methacrylates.
- Eye protection:



Tightly sealed goggles

(Contd. on page 5)

[·] Control parameters

Printing date 11/12/2020

Version number 4

Reviewed on 11/12/2020

Trade name: ProArt Print Splint

(Contd. of page 4)

| Information on basic physical and | chemical properties |
|--------------------------------------|---|
| General Information | |
| Appearance: | |
| Form: | Viscous |
| Color: | Yellowish |
| Odor: | Characteristic |
| Odor threshold: | Not determined. |
| pH-value: | Not applicable. |
| Change in condition | |
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | Undetermined. |
| Flash point: | >107 °C (ISO 13736) |
| Flammability (solid, gaseous): | Not applicable. |
| Auto igniting: | Product is not selfigniting. |
| Danger of explosion: | Product does not present an explosion hazard. |
| Vapor pressure: | Not determined. |
| Density: | Not determined. |
| 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/wat | er): Not determined. |
| Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| Other information | No further relevant information available. |

10 Stability and reactivity

• *Reactivity* No further relevant information available.

· Chemical stability

Photoreactive (Danger of polymerization).

Stable under normal handling and storage conditions.

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid

Protect from exposure to the light.

Keep away from heat and direct sunlight.

· Incompatible materials: No further relevant information available.

· Hazardous decomposition products: None under normal conditions of storage and use.

(Contd. on page 6)

Printing date 11/12/2020

Version number 4

Reviewed on 11/12/2020

Trade name: ProArt Print Splint

(Contd. of page 5)

11 Toxicological information

- · Information on toxicological effects
- Acute toxicity:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:

· Carcinogenic categories

·NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

· Toxicity

- Aquatic toxicity: No further relevant information available.
- · 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:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.

· Uncleaned packagings:

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

| UN-Number DOT/TDG, ADR, ADN, IMDG, IATA | Void | |
|--|------|--|
| UN proper shipping name DOT/TDG, ADR, ADN, IMDG, IATA | Void | |
| Transport hazard class(es) | | |
| DOT, ADR, ADN, IMDG, IATA | | |
| Class | Void | |

Printing date 11/12/2020

Version number 4

Reviewed on 11/12/2020

Trade name: ProArt Print Splint

| | (Contd. of page |
|---|--|
| · Packing group · DOT/TDG, ADR, IMDG, IATA | Void |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| • Transport in bulk according to Annex II o MARPOL73/78 and the IBC Code | f Not applicable. |
| • Transport/Additional information: | Product is not classified as a dangerous good for transport (ADR, IMDG, IATA). |
| · UN ''Model Regulation'': | Void |

15 Regulatory information

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

| · Sara | | | |
|----------------------|--|--|--|
| · Section 355 (extre | · Section 355 (extremely hazardous substances): | | |
| None of the ingrea | None of the ingredients is listed. | | |
| · Section 313 (Spec | · Section 313 (Specific toxic chemical listings): | | |
| None of the ingrea | None of the ingredients is listed. | | |
| · TSCA (Toxic Sub | · TSCA (Toxic Substances Control Act): | | |
| CAS: 72162-39-1 | urethane acrylate oligomer | | |
| CAS: 109-16-0 | triethylene glycol dimethacrylate | | |
| CAS: 72869-86-4 | urethane dimethacrylate | | |
| CAS: 1565-94-2 | Bis-GMA | | |
| CAS: 75980-60-8 | diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide | | |
| CAS: 131-55-5 | 2,2',4,4'-tetrahydroxybenzophenone | | |
| CAS: 7128-64-5 | 2,5-thiophenediylbis(5-tert-butyl-1,3-benzoxazole) | | |
| CAS: 5870-38-2 | diethyl 2,5-dihydroxyterephthalate | | |
| | | | |

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



· Signal word Warning

Hazard-determining components of labeling: triethylene glycol dimethacrylate diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide urethane dimethacrylate Bis-GMA
Hazard statements Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.

(Contd. on page 8)

CA

Printing date 11/12/2020

Version number 4

Reviewed on 11/12/2020

Trade name: ProArt Print Splint

(Contd. of page 7)

Suspected of damaging fertility or the unborn child. May cause respiratory irritation. • **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

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

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

· Date of the latest revision of the safety data sheet 11/12/2020/3

· 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

• * Data compared to the previous version altered.