

Safety Data Sheet

Report Date 7/28/2023

Last Edit 7/20/2023

Section 1 - Product Information

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Product Id # DLPYE60-02 3D
Trade Name BioDental Pro
Product Class Liquid Plastic
Product Description 3D Photopolymer

HMIS Rating

Health 2

Flammability 1

Reactivity 0

Personal Protection B

Section 2 - Hazardous Identification



Signal Word Warning

Eye Damage/Irritation - Category 2A

Skin Corrosion/Irritation - Category 2

Skin Sensitization - Category 1

STOT-SE - Category 3

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing. And wash it before reuse. Store in a well-ventilated place. Keep container tightly closed. Avoid breathing fumes and vapours. Wash effected areas thoroughly after handling. Use in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves and eye protection. Call a Doctor if you feel unwell. See section (4) of the SDS for first aid instruction. Store in a closed container. Store locked up. Dispose of contents/container in accordance with local regulations.

Section 3 - Composition/Information on Ingredients

Chemical Name	CAS #	%
Silicon Dioxide, Chemically prepared	112945-52-5	1-3 %
Monomer Diluent	Proprietary	25-45%
Phenyl-bis(2,4,6-trimethylbenzoyl)-phosphinoxide	162881-26-7	.5-3%
Aliphatic Urethane Dimethacrylate	Proprietary	40-60%

Section 4 - First aid measures

4.1: Description of first aid measures

Immediately remove any clothing soiled by the product. Involve doctor immediately

4.2: After Inhalation

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stable in side position for transportation.

In the case of accidental inhalation of monomers, provide fresh air, rest and warmth.

4.3: After Skin Contact

Immediately wash with water and soap and rinse thoroughly.

Avoid contact with UV – and sunlight.

4.4: After eye Contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

4.5: After Swallowing

Call a doctor immediately. Rinse out mouth and then drink plenty of water

Section 5 - Fire Fighting Measures

5.1: Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.

5.2: For safety reasons unsuitable extinguishing agents:

Water with full jet: Special hazards arising from the substance or mixture

5.3 Advice for fire fighters Protective equipment.

Wear self-contained respiratory protective device. Wear fully protective suit.

Section 6 - Accidental Release Measures

6.1: Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation

Keep people at a distance and stay upwind

6.2: Environmental precautions

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

6.3: Methods and material for containment and cleaning up

Absorb with liquid-binding material (Sand, diatomite, acid binders, universal binders, sawdust)

Section 7 - Handling and storage

7.1: Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care

7.2: Information about protection against explosions and fires

Keep ignition sources away – Do not smoke.

Protect from heat.

7.3: Conditions for safe storage

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Store receptacle in a well ventilated area.

Store under lock and key or with access restricted to technical experts or their assistants only. Do not expose to temperatures above 40 degrees Celsius

Section 8 - Personal Protection

8.1: Personal Protective and Hygienic measures

The usual precautionary measure for handling chemicals should be followed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work

8.2: 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.

Use suitable respiratory protective device only when aerosol or mist is formed

8.3: Protection of Hands:

Wear protective gloves suitable for skin protection.

8.4: Eye protection

tightly sealed goggles are recommended

8.5: Body protection:

Impervious protective clothing

Section 9 - Physical and chemical properties.

9.1 General Properties

Boiling Point: > 200°C

Vapor Pressure: (MM HG at 25°C) < 1

Appearance: Viscous solution

Odor: Mild acrylate odor.

Solubility in water: Insoluble.

WPG: 9.00

Evaporation Rate (n-Butyl Acetate = 1) < 1

Vapor Density (air = 1) > 1

Section 10 - Stability and Reactivity

10.1: Stability and Reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Polymerization occurs when exposed to white light, ultraviolet light or heat.

Mixtures may separate over time, mixture maintenance may be required.

10.2 Incompatible materials

Avoid contact with radical forming initiators, peroxides, strong alkalis or reactive metals to prevent exothermic polymerization.

Section 11 - Toxicological Information

The toxicological information below is listed from the individual raw ingredients in this mixture. They are not representative of the mixture as a whole. This mixture has not been tested for toxicological effects.

· Information on toxicological effects

Available data are listed below; for endpoints not addressed in section 11, no data are available.

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

Aliphatic urethane dimethacrylate

Oral LD50 > 5000 mg/kg (rat)

literature

· Primary irritant effect:

· on the skin: No irritant effect.

· on the eye: No irritating effect.

· Sensitization: No sensitizing effects known.

· Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The substance is not subject to classification.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer) Substance is not listed.

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· NTP (National Toxicology Program)
Substance is not listed.

Information on likely routes of exposure

Product Information .

Inhalation May cause irritation of respiratory tract.

Eye contact Irritating to eyes. Causes serious eye irritation.

Skin contact May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Causes skin irritation.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity

Component Information

Chemical name Oral LD50 Dermal LD50 Inhalation LC50

Isobornylacrylate

5888-33-5

= 4890 mg/kg (Rat) > 5 g/kg (Rabbit) -

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.

Component Information

Isobornylacrylate (5888-33-5)

Method US Code of Federal Regulations, Sec. 1500.41

Species Rabbit

Exposure route Dermal

Effective dose 0.5 mL

Exposure time 24 hours

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GENOMER* 1121Y Revision date 07-Sep-2020 Revision Number 2

Results Non-irritant

Remarks The substance is classified according to the harmonized classification of "monoalkyl or monoaryl or monoalkylaryl esters of acrylic acid (Index 607-133-00-9)" in Annex VI of

EC No 1272/2008 and UN-GHS

Serious eye damage/eye irritation Causes serious eye irritation.

Component Information

Isobornylacrylate (5888-33-5)

Method US Code of Federal Regulations, Sec. 1500.42

Species Rabbit

Exposure route Eye

Effective dose 0.1 mL

Exposure time 72 hours

Results Non-irritant

Remarks The substance is classified according to the harmonized classification of "monoalkyl or monoaryl or monoalkylaryl esters of acrylic acid (Index 607-133-00-9)" in Annex VI of

EC No 1272/2008 and UN-GHS

Respiratory or skin sensitization May cause sensitization by skin contact.

Component Information

Isobornylacrylate (5888-33-5)

Method OECD Test No. 429: Skin Sensitization: Local Lymph Node Assay

Species Mouse

Exposure route Dermal

Results Sensitizing

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure May cause respiratory irritation.

STOT - repeated exposure No information available.

Component Information

Isobornylacrylate (5888-33-5)

Method OECD Test No. 422: Combined Repeated Dose Toxicity Study with the

Reproduction/Developmental Toxicity Screening Test

Species Rat

Exposure route gavage

Exposure time 14 days

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Results NOAEL = 100 mg/kg bw/day
Aspiration hazard No information available.
Other adverse effects No information available.
Interactive effects No information available.

Information on likely routes of exposure

Product Information

Inhalation:

Specific test data for the substance or mixture is not available.

Eye contact:

Specific test data for the substance or mixture is not available.

Skin contact:

Specific test data for the substance or mixture is not available.

Ingestion:

Specific test data for the substance or mixture is not available.

Acute toxicity

Unknown acute toxicity

100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

Symptoms related to the physical, chemical and toxicological characteristics

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation:

Not classified. Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation:

Not classified. Based on available data, the classification criteria are not met.

Respiratory or skin sensitization:

Not classified. Based on available data, the classification criteria are not met.

Germ cell mutagenicity:

Not classified. Based on available data, the classification criteria are not met.

Carcinogenicity:

Based on available data, the classification criteria are not met.

Reproductive toxicity:

Not classified. Based on available data, the classification criteria are not met.

STOT - single exposure:

Not classified. Based on available data, the classification criteria are not met.

STOT - repeated exposure:

Not classified. Based on available data, the classification criteria are not met.

Aspiration hazard:

Not classified. Based on available data, the classification criteria are not met.

· Information on toxicological effects

Available data are listed below; for endpoints not addressed in section 11, no data are available.

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

CAS: 162881-26-7 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Oral LD50 > 2000 mg/kg (rat)

literature

Dermal LD50 > 2000 mg/kg (rat)

literature

· Primary irritant effect:

· on the skin: No irritant effect.

· on the eye: No irritating effect.

· Sensitization: Sensitization possible through skin contact.

· Additional toxicological information:

· Carcinogenic categories

· IARC (International Agency for Research on Cancer) Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

· Mutagenicity studies

CAS: 162881-26-7 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

OECD 471 AMES negative Neg/Pos (bacteria)

CAS# 52408-84-1

Acute Toxicity:

Oral: LD50: >5000 mg/kg (rat) Literature

Irritation of skin: Skin Irr OECD 404: 0.6 PII 0-8 (Rabbit)

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Sensitization possible through skin contact.
Dermal: Sensitization OECD 406: Positive Neg/pos (guinea pigs)

Section 12 - Ecological Information

12.1: Ecological Information

Water hazard class 2 (Self-assessment): Hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic to aquatic organisms

Section 13 - Disposal

13.1: Disposal

Can be incinerated, when in compliance with local regulations.
Disposal must be made according to official regulations.

Section 14 - Transportation Information

14.1: Transportation Information

ADR/RID Class - Not registered
ADNR Class - Not registered
IMDG Class - Not registered
IATA Class - Not registered

Section 15 - Regulatory Substances

R100 - Section 355 (Extremely hazardous Substances):

To the best of our knowledge, this product does not contain any products listed in reportable Levels.

R101 - Section 313 (Specific toxic chemical listings)

To the best of our knowledge, this product does not contain any products listed in reportable Levels.

R102 - TSCA (Toxic Substances Control Act)

Substance is Listed

R103 - Proposition 65: Chemicals Known to cause Cancer

To the best of our knowledge, this product does not contain any products listed in reportable levels.

R104 - Proposition 65: Chemicals known to cause reproductive harm

To the best of our knowledge, this product does not contain any products listed in reportable Levels.

R105 - REACH: (SVHC) Substances of Very High Concern:

To the best of our knowledge, this product does not contain any products listed in reportable Levels.

Section 16 - Other Information

16.2 Other Information

The data are based on the current state of our knowledge, and are intended to describe the product with regard to the requirements of safety. The data should not be taken to imply any guarantee of a particular or general specification. It is the responsibility of the user of the product to ensure to his satisfaction that the product is suitable for the intended purpose and method to use. We do not accept responsibility for any harm caused by the use of this information. Furthermore nothing contained herein shall be construed as recommendation to use any product in conflict with existing patents covering any material or its use. In all cases, our general conditions of sale apply.

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Emergency Phone Number: 3DRS (847) 289-8710

8:34 AM Friday, 7/28/23

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