

Safety Data Sheet PriZma^{3D} Gengiva

OSHA Hazard Communication Standard 29 CFR 1910.1200. Prepared to GHS Rev.08

Section 1. Product and Company Identification

Product Identification: Photopolymer Resin

Product Trade Name and/or synonyms: priZma^{3D} Gengiva Product Class: Mixture of methacrylic acid esters, photoinitiators, proprietary dye/pigment and additive package

Product Use: For use in 3D Printers (LCD, DLP and SLA), NOT for human use. Company: MakertechLabs, R. Luiz de Camargo Barros, 20 Vila São Cristóvão -Tatuí - SP - Brasil - 18250-000

Section 2. Hazard(s) Identification

GHS Hazard Classification of the Substance or Mixture



Signal Word: Warning Signal Word: Danger Signal Word: Environmental hazard

Precautionary Statement(s):

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing dust or fume. (uncured material only)

P264 Wash thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment.

P280 Wear protective gloves, protective clothing, eye protection and face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Section 3. Composition/Information on Ingredients

Chemical Name, Common Name and Synonyms:	CAS # and other unique identifiers	% by Weight
Acrylic Monomers*	(Proprietary)	> 15%
Acrylic Oligomers*	(Proprietary)	> 60%
Dye/Pigment*	(Proprietary)	≤2%
Photoinitiators*	(Proprietary)	≤ 1%

*Denotes that the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4. First-Aid Measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). After inhalation: Remove from source of exposure into fresh air. Seek medical attention if any irritation develops.

After skin contact: Wash skin with soap and water. Remove any contaminated clothing and shoes and clean before reuse. Seek medical attention if irritation develops.

After swallowing: First aid is unlikely to be required but if necessary, rinse mouth repeatedly with water, ensuring that the water is not swallowed. Seek medical attention.

After eve contact: Hold eve open and rise continuously with a gentle stream of clean running water for at least 15 minutes. Seek medical attention if any irritation develops

Information for Doctors: Treat symptoms conventionally after thorough decontamination

Emergency telephone number: +55 15 3305-4901

Hazard Statement(s):

H317 May cause an allergic skin reaction H319 Causes serious eye irritation H320 Causes eye irritation H303 May be harmful if swallowed (uncured material only) H335 May cause respiratory irritation (uncured material only)

Precautionary Statement(s):

P337+P313 If eye irritation persists: Get medical attention. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: Get medical attention

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P308+P313 IF exposed or concerned: Get medical attention. P405 Store locked up.

P501 Dispose of contents and container in accordance with local and national regulations

Description of any hazards not otherwise classified: N/A For a mixture, the percentage of total ingredient(s) of ingredient(s) with unknown acute toxicity: 2%

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Hazardous decomposition products: Thermal decomposition may release acrid smoke or fumes, carbon and nitrogen oxides.

Chemical Stability: Stable if handled and stored as directed.

of contamination or inhibitor depletion may cause spontaneous polymerization generating heat and pressure. Closed containers may rupture or explode during runaway polymerization.

Possibility of hazardous reactions/Conditions to avoid: Heat, light, sources

Incompatible materials: Reducing and oxidizing agents, peroxides and amines.

Personal protective equipment: Depending on the conditions of use, protective is handled at e

gloves, apron, boots, head and face protection should be worn. Eye protection such as chemical splash goggles and/or face shield must be worn when the possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor.

General protective and hygienic measure: Wash hands after handling material and before eating. See section 7 for full protective measures.

Eye protection: Use of safety goggles with side shields is recommended.

Section 8. Exposure Controls / Personal Protection

Control parameters: Use in an enclosed process area is recommended.

Breathing Equipment: None should be needed from normal use. If this material is handled at elevated temperature or under mist forming conditions, approved respiratory protection equipment should be used. Selection and use of respiratory equipment must be in accordance with applicable regulations and good industrial hygiene practice.

Protection of hands: Gloves are recommended. Depending on the conditions of use, lab coat and/or arm shields may be used.

Material of gloves, Penetration time of glove material: N/D

Section 9. Physical and Chemical Properties General Information on basic physical and chemical properties.

Form: Colored Liquid Color: Colored, or having an intentionally added pigmented Odor: Fruity, ester-like odor. Odor Threshold: N/D pH value at 200C (68oF): N/D Relative Density: N/D Melting point/Melting range: N/D Boiling point/Boiling range: N/D Flash point: (PMCC) GT 93C/200F Flammability (solid, gaseous): N/D Ignition Temperature: N/D Decomposition temperature: N/D Auto igniting: N/D Danger of explosion: N/D Solids content: N/D

Section 10. Stability and Reactivity

Reactivity: None known.

contamination

Explosion limits: N/D Lower: N/D Upper: N/D Vapor Pressure at 20oC (68oF): N/D Density at 20oC (68oF): N/D Vapor Density: N/D Evaporation rate: N/D Miscibility with Water: Nearly insoluble in water. Partition coefficient (n-octanol/water): N/D Viscosity Units, Temp. (Brookfield): 220-250 cps at 25C/77F Solvent content: N/D Organic solvents: N/D Water: N/D Other information: Specific Gravity: 1.10-1.125 at 25C/77F

Section 5. Fire-Fighting Measures

Suitable extinguishing agents: Chemical foam, carbon dioxide or dry chemical extinguishers.

Special hazards arising from the substance or mixture: Formation of toxic, irritating gases is possible from the decomposition of the methacrylate resins. Heat can cause polymerization with rapid release of energy.

Advice for firefighters: Wear full protective equipment (bunker gear) and a selfcontained breathing apparatus. (SCBA). Water may not be effective in extinguishing a fire involving this product.

Protective equipment: Wear full protective equipment (bunker gear) and a selfcontained breathing apparatus. SCBA). Water may not be effective in extinguishing a fire involving this product.

Section 6. Accidental Release Measures

Environmental precautions: Avoid releases to the environment. Report releases as required by local and national authorities.

Methods and material for containment and cleaning up: Exposure to sunlight or artificial light will cause the resin to polymerize. Spread the paste to maximize the surface area. Once the material is hard, pick up and place into a container for disposal.

Safety glasses with side shields, gloves and laboratory coat recommended. **Reference to other sections:** Refer to Section 8 for Personal Protective Equipment and Section 13 for Disposal information.

Personal precautions, protective equipment and emergency procedures:

Section 7. Handling and Storage

Precautions for safe handling: Avoid contact with the eyes, skin and clothing. Avoid breathing dust or fumes. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Do not reuse containers. Empty containers retain product residues and can be hazardous. Follow all SDS precautions when handling empty containers. Conditions for safe storage, including and incompatibilities: Store in a tightly closed container in a cool (29-90°F/-1.7-32.2°C), well-ventilated location away from incompatible materials. Do not store near high temperatures, light or ignition sources. Do not store in an oxygen-free environment. Avoid freezing the material.

Specific end use(s): For professional use only.

Thermal decomposition/Conditions to avoid: Avoid heat, light and sources of

MakertechLabs - priZma^{3D} Gengiva SDS - Photopolymer Resin for 3D Printers

Section 11. Toxicological Information

Acute toxicity: Possible irritant. See section 2. Primary irritant effect: See Section 2 for possible skin and eye irritation and sensitization.

LD/LC50 values that are relevant for classification: N/D

Section 12: Ecological Information

Aquatic Toxicity: None of the components are listed. Persistence and degradability: No data is currently available. Behavior in environmental systems: No data is currently available. Bioaccumulative potential: No data is currently available. Mobility in Soil: No data is currently available.

Additional ecological information: No additional data is available. General Notes: Release into the environment should be avoided. Refer to section 13 for disposal information.

Uncleaned packaging recommendation: Rinse with alcohol. Contain and

dispose of rinse material according to all federal, state and local regulations.

Recommended cleansing agent: Isopropyl Alcohol 91%

Results of PBT and vPvB assessment: N/D Other adverse effects: None known.

Section 13. Disposal Considerations

Waste Treatment Recommendation: Cure material before disposal. Dispose in accordance with all federal, state and local regulations. Consult state and local hazardous waste regulations to ensure complete and accurate classification of waste. US EPA guidelines for the classification of hazardous waste are found in 40 CFR part 261.3.

Section 14. Transport Information

DOT, ADR, IMDB, IATA: Not Regulated in IATA GDR 62nd edition UN proper shipping name: N/A Transport Hazard Class(es): N/A Danger code (Kemler): N/A EMS Number: N/A

Transport in bulk according to Annex 1 of MARPOL73/78 and the IBC Code: N/A

Section 15. Regulatory Information Safety, health and environmental regulations / legislation specific for the substance or mixture.

Immediate Hazard: Yes Delayed Hazard: Yes Fire Hazard: No Pressure Hazard: No Reactivity Hazard: No Section 355 (extremely hazardous substances): None. Section 313 (Specific toxic chemical listings): None. TSCA (Toxic Substances Control Act): None of the components are listed. Proposition 65: Chemicals known to the state of California to cause cancer and/ or reproductive toxicity: None. Chemicals known to cause developmental toxicity: None known. EPA (Environmental Protection Agency): None of the components are listed. TLV (Threshold Limit Value established by ACGIH): None of the components

are listed.

NIOSH-Ca (National Institute for Occupational Safety and Health): None of the components are listed

Section 16. Other Information

Abbreviations and Acronyms: None.

OSHA-Ca (Occupational Safety & Health Administration): None of the components are listed

 \mbox{GHS} Label elements: This product is classified and labeled according to the Globally Harmonized System (GHS)

Hazard pictograms:



Signal Word: Warning Signal Word: Danger Hazard-determining components of labeling: See Section 2. Hazard statements: See Section 2. Precautionary statements: See Section 2. Chemical Safety Assessment: A Chemical Safety Assessment has not been carried out.

Other information not contained elsewhere: None.

Additional toxicological information: N/D

IARC (International Agency for Research on Cancer) None of the components are listed.

NTP (National Toxicology Program) None of the components are listed.