



Safety Data Sheet

OSHA Hazard Communication Standard 29
CFR 1910.1200. Prepared to GHS Rev.04

SprintRay Ceramic Crown

Section 1. Product and Company Identification

Product Identification: Photopolymer Resin
Product Trade Name and/or synonyms: SprintRay Ceramic Crown
Product Class: Mixture of methacrylic acid esters, photoinitiators, proprietary pigment and additive package

Product Use: For use in SprintRay 3D printers
Company: SprintRay Inc., 2710 Media Center Drive #100A, Los Angeles, CA 90065
For Emergencies: Call CHEMTREC 800.424.9300

Section 2. Hazard(s) Identification

GHS Hazard Classification of the Substance or Mixture:

Signal Word: Warning

Signal Word: Danger

Signal Word: Environmental Hazard

Skin sensitizers: Category 1B

Hazardous to the Aquatic environment: Category Chronic 2



Hazard Statement(s):

H317: May cause an allergic skin reaction.

H413: May cause long lasting harmful effects to aquatic life.

H316: Causes mild skin irritation.

EUH204: Contains isocyanates. May produce an allergic reaction.

H360Df: May damage fertility. Suspected of damaging the unborn child.

H413: May cause long lasting harmful effects to aquatic life.

Precautionary Statement(s):

Prevention:

P260: Do not breathe dust/fume /mist/vapors/spray.

P264: Wash hand 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.

P285: In case of inadequate ventilation wear respiratory protection.

Response:

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.

P363: Wash contaminated clothing before reuse.

P391: Collect spillage.

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.

Disposal:

P405: Store locked up.

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

NFPA Ratings (0-4)



Health = 1
Fire = 1
Reactivity = 1
Specific Hazard = 0

HMIS Ratings (0-4)

HEALTH	1
FIRE	2
REACTIVITY	1
PERSONAL PROTECTION	B

Health = 1
Fire = 2
Reactivity = 1
Personal Protection = B

Section 3. Composition/Information on Ingredients

Ingredient	Composition	GHS Classification**	CAS #	Hazards Identification
*Proprietary Ingredients - Oligomers	20% - 60%	H317, H411	Proprietary	-Skin sensitization – Category 1B -Chronic aquatic toxicity – Category 2
*Proprietary Ingredients- Monomers	20% - 50%	H317, H361, H411	Proprietary	-Skin Sensitization – Sub-category 1A -Reproductive Toxicity – Category 2 -Chronic aquatic toxicity – Category 2
*Proprietary Ingredients - Photoinitiators	0.1% - 10%	H361f	Proprietary	Reproductive Toxicity – Category 2
*Proprietary Ingredients – Additives	10% - 60%	Repr. 1B (H360Df)	Proprietary	Skin corrosion/Irritation – Category 2 Serious Eye Irritation/Damage – Category 2 STOT (single exposure) – Category 3 Target Organs – Respiratory Systems

*The specific chemical identity is withheld because it is trade secret information of SprintRay

Section 4. First-Aid Measures

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.

Information for Doctors: Treat symptoms conventionally after thorough decontamination.

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

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 self-contained 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 self-contained 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.

Personal precautions, protective equipment and emergency procedures: 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.

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 (15–25 °C / 60–77 °F), 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.

Section 8. Exposure Controls / Personal Protection

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

Personal protective equipment: Depending on the conditions of use, protective 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.

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 20oC (68oF): N/D

Change in Condition

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

Other information: Specific Gravity: 1.10-1.125 at 25C/77F

Explosion limits: N/D

Lower: N/D

Upper: N/D

Vapor Pressure at 20oC (68oF): N/D

Density at 20oC (68oF): N/D

Relative Density: 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): 2500 – 3500 cos at 25C/77F

Solvent content: N/D

Organic solvents: N/D

Water: N/D

Section 10. Stability and Reactivity

Reactivity: None known.

Chemical Stability: Stable if handled and stored as directed.

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

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

Possibility of hazardous reactions/Conditions to avoid: Heat, light, sources of contamination or inhibitor depletion may cause spontaneous polymerization generating heat and pressure. Closed containers may rupture or explode during runaway polymerization.

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

Section 11. Toxicological Information

Inhalation : No known effect^{1,3}, Toxic if inhaled⁴

Eye contact: No known effect^{1,3}

Skin contact: No known effect^{1,3}, Toxic in contact with skin⁴

Ingestion: No known effect¹, Toxic if swallowed⁴

Acute Toxicity:

Acute Oral Toxicity (Rats): LD50 ≥ 5000 mg/kg bw^{1,2,3}[OECD Test 401]; > 2000 mg/kg² [OECD Test 423];

Acute Dermal Toxicity (Rats): LD50 ≥ 2000 mg/kg bw^{1,2,3} [OECD Test 402]

Acute Dermal Irritation/Corrosion (Rabbits): Non-irritant^{1,2,3} [OECD Test 404]

Serious eye damage/eye irritation (Rabbits): Non-irritant^{1,3}[OECD Test 1 405]

Respiratory or skin sensitization (Mouse): Skin sensitization^{1,2} LLNA [OECD Test 429]; Non-sensitizing³

Germ Cell Mutagenicity: Not mutagenic^{1,2,3}[OECD Test 471]

Carcinogenicity: Not carcinogenic^{1,3,4}

Reproductive Toxicity: Not toxic^{1,2}, NOAEL ≥ 1000 mg/kg bw/day¹; NOAEL = 200 mg/kg bw/day (Systemic Toxicity for males)¹ & NOAEL = 300 mg/kg bw/day (Systemic Toxicity for females) [OECD Test 422]¹; At high dose – Increase incidence of post-implantation loss², NOAEL > 5200 mg/kg [OECD TG 414]², Suspected Reproductive Hazard [OECD Test 414- Prenatal Development Toxicity Study – NOAEL 150 mg/kg bw/d] & Reproduction/Developmental Toxicity Screening Test [OECD = 60 mg/kg bw/day]

STOT – single exposure – Based on available data, classification criteria are not met^{1,2,3}

STOT – repeated exposure – Based on available data, classification criteria are not met^{1,3}, Increased weight of liver²,

Aspiration Hazard – Based on available data, classification criteria are not met^{1,2,3}

Endocrine disrupting properties – No information available^{1,3}

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.

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.

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.

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%

Section 14. Transport Information

DOT, ADR, IMDG, IATA: Not Regulated

UN proper shipping name: N/A

Transport Hazard Class(es): Not Regulated

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.

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

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

Hazard pictograms:



Signal Word: Environmental Hazard

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.

Section 16. Other Information

Abbreviations and Acronyms: None.

Other information not contained elsewhere: None.