Release Date: 23 Sep 2026

Safety Data Sheet (SDS)

Prepared in accordance with OSHA HazCom and GHS; compatible with EU REACH Annex II, as amended by (EU) 2020/878, WHMIS, and AU WHS requirements.

RODIN Splint 2.0 Resin

Section 1. Product and Company Identification

Product Identifier: Photopolymer Resin
Trade Name: RODIN Splint 2.0
Synonyms: Dental Splint 3D Printing Resin
Recommended Use
Light-curable resin material intended for the fabrication of orthodontic and dental appliances such as mouthguards, nightguards, splints, and retainers using validated CAD/CAM additive manufacturing systems.
Restrictions on Use
For professional dental/laboratory use only.
Not for direct intraoral placement in uncured state.
Manufacturer/Supplier
Pac-Dent, Inc.
670 Endeavor Circle
Brea, CA 92821
Phone: +1-909-839-0888
Email: info@pac-dent.com
Emergency telephone number
CHEMTREC (US): +1-800-424-9300
International: +1-703-527-3887

Section 2. Hazard(s) Identification

GHS Hazard Classification of the Substance or Mixture
Skin Sensitization - Category 1
Eye Irritation - Category 2
Specific Target Organ Toxicity (Single Exposure) - Category 3
Hazardous to the Aquatic Environment, Chronic - Category 3
Pictograms:



GHS07
Signal Word: Warning
Hazard Statements
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation (uncured material only).
H412 Harmful to aquatic life with long lasting effects (uncured material only).
Precautionary Statements
Prevention
P261 Avoid breathing dust/fume/gas/mist/vapours/spray (uncured material only).
P264 Wash hands [and exposed skin] 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.
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.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Storage
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
Disposal
P501 Dispose of contents/container in accordance with local, regional, national, and international regulations.
Other Hazards
Uncured resin may cause irritation to skin, eyes, and respiratory tract.
Avoid direct contact with uncured material.
Does not meet criteria for PBT or vPvB based on available data.
Does not contain substances classified as endocrine disruptors above reportable thresholds based on available data.

Section 3. Composition/Information on Ingredients

Chemical Name	CAS Number / EC Number	% by Weight	Classification
Methacrylate-based resin monomers*	Proprietary	99.19%	Skin Sens. 1 (H317), Eye Irrit. 2 (H319)
Photoinitiators*	Proprietary	0.64%	See Section 2
Additives (stabilizers, optical brightener, and pigments) *	Proprietary	0.17%	See Section 2

**Specific chemical identities and/or exact concentrations are withheld as trade secrets where permitted by applicable regulations.*

Note: Hazard classifications for individual components and the mixture are provided in accordance with applicable GHS requirements. Refer to Section 2 for the overall hazard classification of the product.

Section 4. First-Aid Measures

Description of First Aid Measures

General Advice

If medical advice is needed, have product container, label, or Safety Data Sheet available. Ensure medical personnel are aware of the material involved and take precautions to protect themselves.

After Inhalation

Remove person to fresh air and keep comfortable for breathing. If irritation, coughing, or other symptoms develop or persist, seek medical attention.

After Skin Contact

Immediately wash affected skin thoroughly with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If irritation, redness, or allergic skin reaction develops, seek medical advice/attention.

After Eye Contact

Immediately rinse cautiously with clean running water for at least 15 minutes, holding eyelids open. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.

After Swallowing

Rinse mouth thoroughly with water. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention if discomfort occurs or if significant quantity has been swallowed.

Most Important Symptoms and Effects, Both Acute and Delayed

Inhalation: May cause respiratory irritation, coughing, or discomfort from vapors or mist.
Skin Contact: May cause irritation, redness, or allergic skin sensitization after repeated exposure.
Eye Contact: Causes irritation, redness, tearing, and discomfort.
Ingestion: May cause gastrointestinal discomfort, nausea, or irritation.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically. No specific antidote is known. For sensitized individuals, manage allergic reactions according to clinical judgment.

Section 5. Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media

Use extinguishing media appropriate for the surrounding fire, including:
Alcohol-resistant foam
Carbon dioxide (CO_2)
Dry chemical powder
Water spray or fog (for cooling exposed containers)

Unsuitable Extinguishing Media

Do not use a direct water jet, as it may spread burning material.

Special Hazards Arising from the Substance or Mixture

The product is not classified as highly flammable; however, combustible organic components may burn under fire conditions. Exposure to heat may cause thermal decomposition of resin components, formation of irritating or hazardous fumes, pressure build-up in closed containers, and possible polymerization with release of heat. Hazardous combustion/decomposition products may include carbon monoxide (CO), carbon dioxide (CO_2), nitrogen oxides (NO_x), and acrid organic fumes.

Advice for Firefighters

Wear self-contained breathing apparatus (SCBA) and full protective firefighting gear.
Cool fire-exposed containers with water spray.
Fight fire from a safe distance or protected location.
Prevent contaminated firefighting runoff from entering drains, waterways, or soil.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation. Wear appropriate personal protective equipment, including safety glasses or chemical splash goggles, protective gloves (e.g., nitrile), and protective clothing/laboratory coat as needed. Avoid breathing vapors, mist, or aerosols generated during cleanup. For non-emergency personnel, isolate the area and avoid unnecessary exposure.

Environmental Precautions

Avoid release to the environment. Prevent material from entering drains, sewers, surface water, or soil. Contain spill if safe to do so. Notify relevant authorities if required by applicable local, regional, or national regulations.

Methods and Material for Containment and Cleaning Up

Small Spills:
Absorb with inert material such as sand, vermiculite, or absorbent pads.
Transfer collected material into a suitable waste container.
Uncured Resin Residue:
Exposure to sunlight or artificial light may initiate polymerization.
Resin may be cured under controlled light exposure prior to disposal where appropriate.
Large Spills:
Dike or contain spill area.
Collect mechanically using non-sparking tools where appropriate.
Place waste into labeled disposal containers.
After cleanup, wash contaminated surfaces with suitable cleaning agents while preventing environmental release.
Reference to Other Sections
Section 8 for exposure controls and personal protective equipment
Section 13 for disposal considerations
Section 7 for safe handling and storage information

Section 7. Handling and Storage

Precautions for Safe Handling

Use only in accordance with professional instructions and validated processing procedures. Avoid contact with skin, eyes, and clothing. Avoid breathing vapors, mist, or aerosols that may be generated during handling, printing, cleaning, or finishing operations. Wear appropriate personal protective equipment as described in Section 8. Use only in well-ventilated areas. Wash hands thoroughly after handling and before eating, drinking, or smoking. Keep containers tightly closed when not in use. Avoid contamination of the product with foreign materials. Do not reuse empty containers. Residual uncured resin may remain hazardous. Protect material from unintended exposure to sunlight, UV light, or other curing light sources.

Conditions for Safe Storage, Including Any Incompatibilities

Store in the original tightly closed container in a cool, dry, and well-ventilated place.
Recommended storage temperature: 4°C to 25°C (40°F to 75°F)

Protect from direct sunlight, UV/curing light sources, excessive heat, moisture, and sources of ignition. Do not freeze. Keep away from strong oxidizing agents, strong reducing agents, peroxides, amines, and polymerization initiators. Store upright to prevent leakage.

Specific End Use(s)

Light-curable dental resin intended for the fabrication of orthodontic and dental appliances such as mouthguards, nightguards, splints, and retainers using validated CAD/CAM additive manufacturing systems. For professional dental laboratory or clinical use only.

Section 8. Exposure Controls / Personal Protection

Control Parameters

No specific occupational exposure limits have been established for this mixture as a whole. Where applicable, occupational exposure limits for individual components should be observed in accordance with local regulations. Use adequate ventilation during handling, printing, cleaning, finishing, or other operations that may generate vapors, aerosols, or dust. Local exhaust ventilation is recommended where airborne exposure may occur.

Exposure Controls
Appropriate Engineering Controls
Use in a well-ventilated area.
Provide local exhaust ventilation where vapors, mist, or airborne particulates may be generated.
Use enclosed or automated processing systems where practical.
Maintain eyewash stations and hand-washing facilities in work areas.
Individual Protection Measures (Personal Protective Equipment)
Eye / Face Protection
Wear safety glasses with side shields or chemical splash goggles where splashing or contact is possible. Face protection may be used for high-exposure operations.
Skin Protection
Hand Protection
Wear chemical-resistant protective gloves (e.g., nitrile gloves). Replace gloves if contaminated or damaged.
Body Protection
Wear suitable protective clothing, laboratory coat, or apron to prevent repeated or prolonged skin contact.
Respiratory Protection
Respiratory protection is not normally required under normal conditions of use with adequate ventilation. If ventilation is insufficient, or if vapors, aerosols, dust, or mist are generated, use approved respiratory protection in accordance with applicable regulations.
General Hygiene Measures
- Wash hands thoroughly after handling and before breaks, eating, drinking, or smoking.
- Remove contaminated clothing and wash before reuse.
- Avoid contact with skin, eyes, and clothing.
- Do not eat, drink, or smoke while handling the product.

Environmental Exposure Controls
Avoid release to drains, soil, and waterways. Handle waste and residues in accordance with Section 13.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties General Information	**Explosion limits**
Appearance	**Lower:** Not available
Form: Liquid	**Upper:** Not available
Color: Pigmented (varies by product variant)	**Vapor Pressure:** Not available
	Density: Not available

Odor: Fruity, ester-like odor.
Odor Threshold: Not available
pH value at 20°C (68°F): Not applicable (non-aqueous)
Melting point/Melting range: Not available
Boiling point/Boiling range: Not available
Flash point: 93°C (199°F) (PMCC)
Evaporation rate: Not available
Flammability (solid, gaseous): Not available
Auto-Ignition Temperature: Not available
Decomposition temperature: Not available

Relative density: 1.10–1.125 at 25°C (77°F)
Solubility: Nearly insoluble in water
Vapor Density: Not available
Partition coefficient (n-octanol/water): Not available
Viscosity: 220–250 cP at 25 °C (77 °F) (Brookfield)
Solvent content: Not available
Organic solvents: Not available
Water: Not available
Solids content: Not available
Other information: No additional information available

Section 10. Stability and Reactivity

Reactivity
The product is stable under recommended conditions of storage and use. Uncured resin may undergo polymerization when exposed to heat, UV light, visible curing light, or contamination with reactive substances.
Chemical Stability
Stable when stored in the original sealed container under recommended storage conditions. Product contains polymerizable components that may gradually react if improperly stored or exposed to light, heat, or contamination.
Possibility of Hazardous Reactions
Hazardous polymerization may occur under certain conditions. Conditions that may initiate uncontrolled polymerization include:
- Exposure to sunlight, UV light, or curing light sources
- Elevated temperatures
- Contamination with peroxides, amines, reducing agents, or other reactive materials
- Inhibitor depletion over time
- Bulk heating in closed containers

Runaway polymerization may generate heat and pressure and may rupture sealed containers.
Conditions to Avoid
- Heat
- Direct sunlight
- UV / curing light exposure
- Sources of ignition
- Contamination
- Extended storage outside recommended temperature range

Incompatible Materials
Keep away from:
- Strong oxidizing agents
- Strong reducing agents
- Organic peroxides
- Amines
- Polymerization initiators
- Strong acids or bases where reactive incompatibility may occur

Hazardous Decomposition Products
Thermal decomposition or combustion may generate:
- Carbon monoxide (CO)
- Carbon dioxide (CO2)
- Nitrogen oxides (NOx)
- Irritating organic fumes
- Acrid smoke

Section 11. Toxicological Information

Information on Hazard Classes as Defined in Applicable GHS Regulations
Acute Toxicity
Based on available data, the mixture is not classified for acute toxicity. Uncured material may be harmful if swallowed in significant quantities and may cause irritation of the mouth, throat, or gastrointestinal tract.
Skin Corrosion / Irritation
Not classified as corrosive. Prolonged or repeated skin contact may cause irritation, redness, or dryness.
Serious Eye Damage / Eye Irritation
Classified as Eye Irritation Category 2. Direct contact with uncured material may cause redness, tearing, pain, and discomfort.
Respiratory Sensitization
Not classified based on available data.
Skin Sensitization
Classified as Skin Sensitization Category 1. Repeated or prolonged exposure may cause allergic skin reaction in susceptible individuals.
Germ Cell Mutagenicity
Not classified based on available data.
Carcinogenicity
Not classified based on available data. The components of this product are not intentionally added at reportable concentrations as carcinogens listed by:
IARC (International Agency for Research on Cancer)
NTP (National Toxicology Program)
OSHA
Reproductive Toxicity
Not classified based on available data.
Specific Target Organ Toxicity - Single Exposure

May cause respiratory irritation if vapors, mist, or aerosols are generated during handling or processing.
Specific Target Organ Toxicity - Repeated Exposure
Not classified based on available data.
Aspiration Hazard
Not classified.
Information on Other Hazards
Likely Routes of Exposure
Skin contact
Eye contact
Inhalation of vapors, mist, or dust generated during processing
Accidental ingestion
Symptoms Related to Physical, Chemical and Toxicological Characteristics
Eye irritation
Skin redness or rash
Allergic skin reaction
Respiratory discomfort if airborne exposure occurs
Gastrointestinal discomfort if swallowed
Delayed and Immediate Effects
Repeated skin exposure may result in delayed sensitization.

Section 12: Ecological Information

Toxicity
Harmful to aquatic life with long lasting effects. Uncured resin components may present toxicity to aquatic organisms. Avoid release to the environment.
Persistence and Degradability
No specific data are available for the mixture. Uncured polymerizable resin components are not expected to degrade rapidly under normal environmental conditions. Cured material is expected to be relatively inert.
Bioaccumulative Potential
No specific data are available for the mixture. Certain organic components may have some potential for bioaccumulation depending on environmental conditions.
Mobility in Soil
No specific data are available. Liquid uncured material may adsorb to soil or sediment surfaces and may exhibit limited mobility in water due to low water solubility.
Results of PBT and vPvB Assessment
Based on available information, this mixture does not contain components meeting criteria for PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative) at reportable concentrations.
Endocrine Disrupting Properties
No components are known to be present at reportable concentrations that are identified as endocrine disruptors based on available data.
Other Adverse Effects
No additional adverse environmental effects are known. Prevent uncontrolled release of uncured product to drains, waterways, and soil. Refer to Section 13 for disposal considerations.

Section 13. Disposal Considerations

Waste Treatment Methods
Product Disposal
Where practical, cure uncured resin prior to disposal to reduce hazard. Dispose of contents in accordance with applicable local, regional, national, and international regulations. Do not discharge uncured material into drains, surface water, or soil. Waste classification should be determined by the waste holder based on composition, contamination, and applicable regulations.
Contaminated Packaging
Containers and packaging may retain hazardous residues of uncured resin. Do not reuse empty containers. Dispose of contaminated packaging in accordance with applicable regulations. Where appropriate, containers may be drained and allowed to cure before disposal.
Cleaning Materials
Cleaning agents (e.g., alcohol used for rinsing) and contaminated absorbents should be collected and disposed of in accordance with applicable regulations. Do not discharge cleaning solutions into drains or the environment.
Additional Disposal Information
Follow all applicable regulatory requirements for hazardous waste handling and disposal in the region of use.

Section 14. Transport Information

UN Number or ID Number
Not applicable
UN Proper Shipping Name
Not applicable
Transport Hazard Class(es)
Not applicable
Packing Group
Not applicable
Environmental Hazards
Not classified as environmentally hazardous for transport.
Special Precautions for User
Transport in tightly closed containers. Protect from excessive heat, direct sunlight, and conditions that may initiate polymerization.
Maritime Transport in Bulk According to IMO Instruments
Not applicable
Additional Transport Information
Based on the available transport classification information, this product is not regulated as dangerous goods under:
US DOT (Department of Transportation)
IATA (International Air Transport Association)

IMDG (International Maritime Dangerous Goods Code)
ADR/RID (European road/rail transport)

Section 15. Regulatory Information

Safety, Health and Environmental Regulations / Legislation Specific for the Substance or Mixture
This Safety Data Sheet is prepared to support hazard communication under applicable requirements, including:
OSHA Hazard Communication Standard (29 CFR 1910.1200)
Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
Regulation (EC) No 1907/2006 (REACH), as amended
Commission Regulation (EU) 2020/878 (SDS requirements)
Canada WHMIS / Hazardous Products Regulations
Australia Work Health and Safety (WHS) requirements
REACH Status
Applicable REACH obligations, including substance restrictions, authorization, and SVHC communication requirements, should be evaluated based on current supplier and substance information.
PBT and vPvB Assessment
Based on available information, this mixture does not contain substances meeting the criteria for PBT or vPvB at reportable concentrations.
Endocrine Disrupting Properties
No components are known to be present at reportable concentrations that are identified as endocrine disruptors based on available information.
Other Regulatory Information
This product is intended for professional dental use and should be handled in accordance with applicable occupational safety regulations.
Chemical Safety Assessment
A Chemical Safety Assessment has not been carried out for this mixture.

Section 16. Other Information

Abbreviations and Acronyms
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
PBT - Persistent, Bioaccumulative and Toxic
vPvB - Very Persistent and Very Bioaccumulative
STOT - Specific Target Organ Toxicity
SCBA - Self-Contained Breathing Apparatus
Key Literature References and Sources for Data
Supplier Safety Data Sheets for raw materials
European Chemicals Agency (ECHA) database
OSHA Hazard Communication Standard (29 CFR 1910.1200)
Regulation (EC) No 1907/2006 (REACH)
Commission Regulation (EU) 2020/878
Classification Procedure
The classification of this mixture is based on:
Available data on individual components
Application of GHS classification criteria
Bridging principles and expert judgment
Relevant Hazard Statements (Full Text)
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H335 May cause respiratory irritation
H412 Harmful to aquatic life with long lasting effects
Training Advice
Users should be trained in:
Safe handling of light-curable resin materials
Use of appropriate personal protective equipment
Prevention of skin contact and inhalation exposure
Proper waste handling and disposal practices
Use only as directed for professional dental or laboratory applications.
Disclaimer
The information provided in this Safety Data Sheet is based on current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not be construed as guaranteeing any specific property of the product. The user is responsible for ensuring compliance with all applicable laws and regulations.