Splint Soft Resin

MATERIAL SAFETY DATA SHEET

MSDS code: DT/MDQ-C-RDMS-015

Creation Date: May,10,2023

Revision Date: May,10,2023

Revision instructions: Adding

Hangzhou SHINING3D Dental Technology Co., Ltd.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

English product name: Splint Soft Resin
English product code: **SS01**
Chemical Chinese name: 光敏聚合物树脂
Chemical English name: Photopolymer Resin
Product code: Not available.
Product description: Mixture of acrylic and methacrylic acid esters, photoinitiators, proprietary pigment and additive package.
Other means of identification: Not available.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Photopolymer Resin for AccuFab Series 3D Printers.

1.3 Details of the supplier of the safety data sheet

Company: Hangzhou SHINING3D Dental Technology Co., Ltd.
Address: 9-5-2,Tri-River Valley,Wenyan Street, Xiaoshan, Hangzhou, Zhejiang, China
Email: cnsales@shining3d.com
MSDS code: DT/MDR-C-RDMS-006

1.4 Emergency telephone number

Telephone: +86-0571-82999589
Hours of operation: 24/7

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture.
Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Eye irritation, Category 2
Skin irritation Category 2
Skin sensitization, Category 1
Aquatic chronic toxicity – Category 1
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms:





Signal word: Warning

Hazard statements:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H411 Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment, [long-term hazard]

Precautionary statements Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handing.

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, face protection.

Response:

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

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

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

P362 + P364 Take off contaminated clothing and wash it before reuse.

P314 Get medical advice and attention if you feel unwell.

Storage: P405 Store locked up.

Disposal: P501 Dispose of contents and container in accordance with all local, regional,national

Hazardous ingredients: Methacrylated monomers, Methacrylated oligomers, Photoinitiators.

Supplemental label elements: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures, and articles: Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings: Not applicable.

Tactile warning of danger: Not applicable.

2.3 Other hazards

Other hazards which do not result in classification: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures: Mixtures

Product/ingredient name	Identifiers	Composition	Classification Regulation (EC) n. 1272/2008 [CLP]

		(%)	
Acrylate monomers	proprietary	proprietary	Skin Irrit. 2 Eye Trrit.2 Aquatic Chronic 2 H315 H319 H411
Acrylate oligomers	proprietary	proprietary	Skin Sens. 1B STOT SE 3 Aquatic Chronic 2 H317 H335 H411
Photoinitiator	proprietary	proprietary	Skin Sens. 1B H317

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

SECTION 4: First-aid measures

4.1 Description of first aid measures

General advice: Consult a physician. Show this safety date sheet to the doctor in attendance.

Skin contact: Wash skin with soap and water for at least 20 minutes. Remove any contaminated clothing and shoes and clean before reuse. Seek medical attention if irritation develops.

Eye contact: Immediately remove the contact lenses and rinse the eyes continuously with clean water for at least 15 minutes. Seek medical attention.

Inhaled: Remove the exposed person from source of exposure into fresh air. Seek medical attention if any irritation develops. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, or belt.

Ingestion: Rinse mouth with water and keep the fresh air around the victim. Stop feeding anything and seek medical attention if the victim is unconscious or feels sick.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: May cause respiratory irritation.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following: pain or irritation, watering, redness.

Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing.

Skin contact: Adverse symptoms may include the following: irritation, redness.

Ingestion: No known significant effects or critical hazards.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

SECTION 5: Fire-fighting measures

5.1 Extinguishing Media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Hazards from the substance or mixture: This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products: No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handing

Protective measures: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations: Not available.

Industrial sector specific solutions: Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values: No data available.

Biological limit values: No data available.

DNEL/DMEL: No DNELs/DMELs available.

PNEC: No PNEC available.

8.2 Exposure controls

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Individual protection measures & Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety glasses with side-shields conforming to EN166.Use equipment for eye protection tested and approved under appropriate government standards such as EN 166(EU).

Skin protection: Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection: Wear dust mask when handing large quantities.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

Physical state	Liquid
Colour	Light blue clear
Odour	Ester-like Odor
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling rang	No data available
Flammability	No data available
Lower and upper explosion limit/flammability limit	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
PH	No data available
Kinematic viscosity	No data available

Solubility	Almost insoluble in water, good solubility in most organic solvents.
Partition coefficient n-octanol/water(log value)	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
Particle characteristics	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity: No data available
10.2 Chemical stability: Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions: Hazardous polymerization may occur. Uncontrolled polymerization may cause rapid evolution of heat and increase in pressure that could result in violent rupture of sealed storage vessels or containers.
10.4 Conditions to avoid: Light, electrostatic discharge, heat, humidity.
10.5 Incompatible materials: Polymerization initiators, including peroxides, strong oxidizing agents, alcohols, copper, copper alloys, carbon steel, iron, rust, and strong bases.
10.6 Hazardous decomposition products: Hazardous decomposition products may include oxides of carbon, nitrogen and various hydrocarbon fragments.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Oral: No data available
Inhalation: No data available
Dermal: No data available
Skin corrosion/irritation
No data available
Serious eye damage/irritation
No data available
Respiratory or skin sensitization
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
No data available
Reproductive toxicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

12.1 Toxicity

There is No data available.

12.2 Persistence and degradability

There is No data available.

12.3 Bioaccumulative potential

There is No data available.

12.4 Mobility in soil

There is No data available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects

There is No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste: The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or

rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

14.1 UN Number

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.

14.2 UN Proper Shipping Name

ADR/RID: unknown
IMDG: unknown
IATA: unknown

14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.

14.4 Packing group, if applicable

ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.

14.5 Environmental hazards

ADR/RID: No	IMDG: No	IATA: No

14.6 Special precautions for user

There is no data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

There is no data available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV: None of the components are listed.

Substances of very high concern: None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

Other EU regulations Europe inventory: Not determined.

Ozone depleting substances (1005/2009/EU): Not listed.

Prior Informed Consent (PIC) (649/2012/EU): Not listed.

Seveso Directive: This product is not controlled under the Seveso Directive.

National regulations D. Lgs. 152/06: Not classified.

15.2 Chemical safety assessment: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Information on revision

Creation Date	May, 10,2023
Revision Date	--

Abbreviations and acronyms

ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Data sources: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.