

Safety Data Sheet 3D SLA Resin

Flexible

1. Chemical Product And Company Identification

Product Name

3DSR - Flexible

Application

3D printing with UV-Visible light 3D-printer for objects which need resilient property

Supplier

Kudo3D Inc.

Address

11700 Dublin Blvd, Suite 220 Dublin, CA 94568, USA.

Telephone

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Website

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Email

contact@kudo3d.com

Emergency Phone Numbers

911(for USA)

2.Hazards Identification	
GHS Classification	
Serious eye damage/ irritation	Category 2
Skin corrosion/ irritation	Category 2
Sensitization, skin	Category 1B
Hazardous to the aquatic environment, chronic hazard	Category 3

GHS Label Elements



Signal Word

Warning

Hazards Statements

- H315 Causes skin irritation
- 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

Prevention Precautionary Statements

- P235 + 410 Keep cool. Protect from sunlight.
- P264 Wash face, hands and any exposed skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- 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 Precautionary Statements

- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P332 + P313 If skin irritation occurs: Get medical advice/attention.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337 + P313 If eye irritation persists: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before reuse.
- P363 Wash contaminated clothing before reuse.
- P501 Dispose of contents/container to an approved waste disposal plant.

3.Composition/ Information on Ingredients		
Mixture		
Component	CAS No.	%Weight
Photoinitiator	Proprietary	1-5%
Acrylate Monomer	Proprietary	20-55%
Acrylate Oligomer	Proprietary	40-70%

4.First-aid Measures

Inhalation

Remove victim to fresh air immediately. Give oxygen or artificial respiration if needed. Seek emergency medical attention.

Skin Contact

Remove contaminated clothing and wash with soap and clean water for 15 minutes at least. Seek medical attention.

Eye Contact

Flush eyes with plenty of clean water for 30 minutes at least and retract eyelids often. Obtain emergency medical attention.

Ingestion

Do Not induce vomiting. Obtain emergency medical attention.

5.Fire-Fighting Measures

Extinguishing Media

Dry chemical, CO2, foam, water spray/ fog

Fire and Explosion Hazards

High temperature, inhibitor depletion, accidental impurities, exposure to radiation or oxidizers may cause polymerization accompanied by heat and pressure generation inducing rupture/ explosion of containers.

Special Protective Equipment and Precautions for Fire-fighters

Fire fight from safe distance/ protected location with full protective clothing and self-contained breathing apparatus. Water spray/ fog can be used for cooling.

6.Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Wear suitable protective clothing. Extinguish all ignition sources, keep unnecessary people away, ventilate area, and absorb spilled material with inert absorbent.

Environmental Precautions

Do not release into drain, soil, surface water, groundwater.

Waste Disposal Methods

Contain spills in an appropriate container for disposal with applicable regulations.

7. Handling and Storage

Precautions for Safe Handling

While handling this product, wear suitable protective gloves, protective clothing, eye protection and face protection equipment for safety and avoid contact with eyes, skin or hair. Handle this product in a well-vented area for preventing from inhalation. Keep away from heat source such as a heating oven. Wash hands and exposed skin thoroughly after operation each time.

Conditions for safe storage

Avoid from light, strong oxidizers, strong acids and bases, radical initiators, heat, sparks, open flame, or any sources of ignition. Must be stored in a cool(15-35°C/59-95°F) and dry place with closed opaque containers. Do not blanket or mix with oxygen-free gas to prevent ineffectiveness of polymerization inhibitors. Keep this product out of reach of kids and pets.

8. Exposure Controls/ Personal Protection

Respiratory Protection

NIOSH/ MSHA approved respiratory equipment is recommended.

Eye Protection

Tight-fitting chemical safety goggles and face shield should be equipped to avoid from any splashing and vapor. Do not wear contact lenses for safety.

Skin Protection

Wear protective gloves(neoprene or nitrile), apron, boots, long pants, head and face protection, prevent from any contact of skin. Equipment should be cleaned thoroughly after operation each time.

Engineering Controls

Ventilation system or outdoors for fresh air supply.

Other Hygienic Practices

Emergency eyewash and safety shower facility are well-prepared. Wash hands and shower thoroughly after handling. Do not eat, drink, smoke, or any behavior unrelated to operation in working area.

9.Physical and Chemical Properties	
Appearance	Black viscous liquid
Odor	Low acrylic ester odor
рН	-
Melting Point	-
Boiling Point	>110°C (>230°F)
Flash Point	>110°C (>230°F)
Autoignition	-
Lower Explosion limit	-
Upper Explosion limit	-
Vapor Pressure(mmHg)	Negligible
Vapor Density(air = 1)	-
Specific Gravity(H ₂ O=1 at 25°C)	1.05

Solubility in Water	Negligible
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10.Stability and Reactivity

Chemical Stability

Stable under appropriate storage and use as indicated.

Possibility of Hazardous Reactions

Hazardous polymerization may occur while contact light, heat, radical initiators, inert gas or over shelf life.

Conditions to Avoid

Light, heat, peroxides, oxidizing agents, radical initiators, metal ions, metal oxides, strong acids and bases, inert gas, oxygen scavengers, any ignition sources, and moisture.

11.Toxicological information

Routes of Exposure

Inhalation, Skin Contact, Eye Contact, Ingestion

Inhalation

Inhalation vapor of this product may cause irritation of chest and nasal passages, inducing coughing, sneezing, and nausea.

Skin Contact

Contact skin may cause irritation, skin sensitivity, and blisters, long-term exposure may cause allergic reactions, redness and dermatitis .

Eye Contact

May cause eyes irritation, pain, and redness, long-term or repeated exposure may cause conjunctivitis.

Ingestion

May cause gastrointestinal discomfort, and nausea.

12.Ecological information	
Ecotoxicity	Harmful to aquatic life. Dispose in accordance with applicable regulations.
Persistence and Degradability	-
Bioaccumulative Potential	-
Mobility in Soil	-
Other Adverse Effect	-

13.Disposal Consideration

Do not release to drains, soil, surface waters and groundwater. Dispose this product and container in accordance with national, state, and local regulations.

14.Transport Information	
UN Number	-
UN Transportation Name	-
Transport Hazard Class	-
Packing Group	-
Environmental Hazards	-
Special Transportation Method and Attention	-

15.Regulatory Information

Applicable Regulations (Taiwan)

- 1.Occupational Safety and Health Act
- 2. Regulation of Labelling and Hazard Communication of Hazardous Chemicals
- 3.Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste
- 4. Regulations Governing Road Traffic Safety
- 5.Toxic Chemical Substances Control Act

16.Other Information	
Reference	1.Globally Harmonized System of Classification and Labeling of Chemicals (GHS Purple Book)
	2.Recommendations on the Transport of Dangerous Goods (UN Orange Book)
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Provided Person	Title: Engineer, Name: Benson Lin
Created Date	2018.6.1
Note	The "-" symbol means there's no current available data or information.

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