



MSDS REPORT

ELEGOO Photopolymer Resin

PREPARED BY

Shenzhen Zhihengpai Keji Youxiangongsi
(ELEGOO TECHNOLOGY LIMITED)

A205 Weidonglong Business Building,
Meilong Avenue, Longhua District
Shenzhen

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NOTICE

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This document is a redesign of the original MSDS report by ELEGOO found here:

<https://www.elegoo.com/tutorial/Elegoo%20Photopolymer%20Resin%20MSDS%20Repor%2020180831.pdf>

Product and Company Information

Trade Name and/or Synonyms	Photopolymer Resin
Recommended use	For use with DLP 3D Printer, NOT for human use
Manufacturer/Supplier	Shenzhen zhinengpai keji youxiangongsi A205 Weidonglong Business Building, Meilong Avenue, Longhua District Shenzhen

Hazard(s) Identification

GHS Hazard Classification of the Substance or Mixture



SERIOUS LONG TERM
HEALTH HAZARDS



HARMFUL SKIN AND EYE
IRRITATION

Signal Word Warning, Danger

Hazard Statement(s)

H317	May cause an allergic skin reaction
H320	Causes eye irritation
H303	May be harmful if swallowed (<i>uncured material only</i>)
H335	May cause respiratory irritation (<i>uncured material only</i>)

N/A

Description of hazards not otherwise classified

2%

For a mixture, the percentage of total ingredient(s) with unknown acute toxicity

NFPA RATINGS (0-4)



HEALTH	0
FIRE	0
REACTIVITY	0

HMIS RATINGS (0-4)



HEALTH	0
REACTIVITY	0
FIRE	0

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 (<i>uncured material only</i>)
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
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 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

Composition/Information on Ingredients

Chemical name, common name, and synonyms	CAS number and other unique identifiers	Percentage by weight
Acrylic oligomers*	55818-57-0	40-50%
Monomer	13048-33-4	20-40%
Color pigment	-	2-5%
Photoinitiators*	947-19-3	3-5%

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

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
After eye contact	Hold eye open and rinse continuously with a gentle stream of clean running water for at least 15 minutes Seek medical attention if any irritation develops
After swallowing	First aid is unlikely to be required but if necessary, rinse mouth repeatedly with water, ensuring water is not swallowed Seek medical attention
Information for Doctors	Treat symptoms conventionally after thorough decontamination

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

Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures	Safety glasses with side shields, gloves, and laboratory coat recommended
Environmental precautions	Avoid release 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
Reference to other sections	Refer to Section 8 for Personal Protective Equipment and Section 13 for disposal information

Handling and Storage

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

Exposure Controls / Personal Protection

Control parameters	Use in an enclosed process area is recommended
Personal protective equipment	<p>Depending on the conditions of use, protective gloves, apron, boots, head, and face protection should be worn</p> <p>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</p>
General protective and hygienic measure	<p>Wash hands after handling material and before eating</p> <p>See Section 7 for full protective measures</p>
Breathing equipment	<p>None should be needed from normal use</p> <p>If this material is handled at elevated temperature or under mist forming conditions, approved respiratory protection equipment should be used</p> <p>Selection and use of respiratory equipment must be in accordance with applicable regulations and good industrial hygiene practice</p>
Protection of hands	<p>Gloves are recommended</p> <p>Depending on the conditions of use lab coat and/or arm shields may be used</p>
Material of gloves, Penetration time of glove material	N/D
Eye protection	Use of safety goggles with side shields is recommended

Physical and Chemical Properties

Information on basic physical and chemical properties.
General Information.

Change in Condition		Appearance	
Melting point/range	N/D	Form	Colored Liquid
Boiling point/range	N/D	Color	Colored, or having an intentionally added pigmented color
Flash point	(PMCC) GT 200°F/93°C	Odor	Ester-like odor
Flammability (solid,gaseous)	N/D	Odor Threshold	N/D
Ignition temperature	N/D	pH value at 68°F/20°C	N/D
Decomposition temperature	N/D		
Auto igniting	N/D		
Danger of explosion	N/D		
Explosion limits	N/D		
Lower	N/D		
Upper	N/D		
Vapor pressure at 68°F/20°C	N/D		
Density at 68°F/20°C	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)	220-250 cps at 77°F/25°C		
Solvent content	N/D		
Organic solvents	N/D		
Water	N/D		
Solids content	N/D		
Specific Gravity	1.10-1.125 at 77°F/25°C		

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

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
Additional toxicological information	ND
International Agency for Research on Cancer (IARC)	None of the components are listed
National Toxicology Program (NTP)	None of the components are listed

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 data is currently 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

Disposal Considerations

Waste Treatment Methods	
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
Unclean packaging recommendation	Rinse with alcohol Contain and dispose of rinse material according to all federal, state, and local regulations
Recommended cleansing agent	Alcohol

Transport Information

According to IATA DGR59IATA Dangerous Goods Regulations (DGR) 59th Edition 2018 Regular Bound Manual

Containers/vessels must be leakage free

Loading must be done to prevent containers from falling, dropping down and being damaged

Take necessary steps to prevent collapse

UN number	3082
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Transport hazard class	9
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Packing group	III
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IMDG-CODE

UN number	3082
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Transport hazard class	9
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Packing group	III
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ICAO/IATA-DG

UN number	Not applicable
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Transport hazard class	Not applicable
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Packing group	Not applicable
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UN-ADR

UN number	3082
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Transport hazard class	9
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Packing group	III
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Regulatory Information

The following table provides a summary of the legal requirements

	Methacrylated oligomers (A)	Methacrylated monomer (B)	Photoinitiators (C)
EPA* TSCA	Yes	Yes	Yes
CA Prop 65	No	No	No
EINECS	Yes	Yes	Yes
European Community Standards	None	None	None
Listed as dangerous chemicals per ESIS	No	No	No
EEC Symbol	Xi; Irritant, R36/37/38, R43 S3, S7/9, S20, S26, S29, S37/39	Xi; Irritant, R36/37/38, R43 S3, S7/9, S20, S26, S29, S37/39	H303, H402
DSL	Yes	Yes	Yes
NDSL	Yes	Yes	No

Substance preparation classification



IRRITANT

Full text of any R-Phrases and S-Phrases

Risk Phrases		Safety Phrases	
R36/37/38	Irritating to eyes, respiratory system, and skin	S3	Keep in a cool place
R43	May cause sensitization by skin contact	S7/9	Keep container
		S20	When using, do not eat or drink
		S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
		S29	Do not empty into drains
		S36	Wear suitable protective clothing
		S37/39	Wear suitable gloves and eye/face protection

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

Pursuant to Title III of the Superfund Amendments and Reauthorization act of 1986, (SARA) and 40 CFR 372 Part 372, this product does not contain chemicals subject to the reporting requirements under section 313

California Proposition 65

This product does not contain chemicals which are known to the state of California to cause cancer

Other Information

Abbreviations / Acronyms	None
Other information not contained elsewhere	None