



SDS Service Summary

No.: CANEC24000105403

Date: 11 Jan 2024

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SGS Job No. : SZP24-000166
Product Name : ABS-Like Photopolymer Resin
Manufacturer / Supplier : SHENZHEN ELEGOO TECHNOLOGY CO., LTD.
Composition/Ingredient of product (as per applicant submission) : See *section 3 Composition/information on ingredients* on the SDS
Job Receiving Date : 02 Jan 2024
SDS Preparation Period : 02 Jan 2024-08 Jan 2024

Service Requested : Preparation of Safety Data Sheet (SDS) for the product with submitted information, with calculation of the classification and labeling requirement according to the submitted composition and US Hazard Communication Standard 29 CFR 1910.1200.

Summary : As per request, the contents and formats of the SDS are prepared in accordance with US Hazard Communication Standard 29 CFR 1910.1200, and is provided per attached.

Disclaimer

This Safety Data Sheet (SDS) is provided to applicant to fulfill US Hazard Communication Standard 29 CFR 1910.1200 and communicate the hazard information of chemicals through the supply chain to ensure safe use. It is not a test report or a certificate ensuring the safety of a product. SGS has consolidated product information based on documents provided by Applicant (i.e. product name, the supplier details, product composition, available physical data, etc.) without independent verification from SGS. The information is provided without any warranty, express or implied, regarding its correctness.

Jany Zhong
Project Engineer

Safety Data Sheet

29 CFR 1910.1200

Printing date 01/10/2024

Reviewed on 01/08/2024

1 Identification

- **Product identifier**
- **Trade name:** ABS-Like Photopolymer Resin
- **Recommended use of the chemical and restrictions on use:**
- **Application of the substance / the preparation:** 3D Printing
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** SHENZHEN ELEGOO TECHNOLOGY CO. , LTD.
- **Full address:**
101, NO. 30, DAHE INDUSTRIAL ZONE, GUANCHENG COMMUNITY, GUANHU STREET, LONGHUA DISTRICT, SHENZHEN, CHINA
- **Phone number:** 0755-21005141
- **Email:** INFO@ELEGOO.COM
- **Other U.S. contact point:** Not available
- **Further information obtainable from:** SHENZHEN ELEGOO TECHNOLOGY CO. , LTD.
- **Emergency telephone number:**
Poison Center
Tel: +1 800 222 1222
- **Reference Number:** CANEC24000105403,SZP24-000166

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carcinogenicity 2

H351 Suspected of causing cancer. Route of exposure:
Inhalation.

GHS05 Corrosion

Eye Damage 1

H318 Causes serious eye damage.



GHS07

Skin Irritation 2

H315 Causes skin irritation.

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure 3 H335 May cause respiratory irritation.

- **Information concerning particular hazards for human and environment:**

The product has to be labeled due to the calculation procedure of OSHA Hazard Communication Standard (29 CFR 1910.1200).

- **Classification system:**

The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200), and extended by company and literature data.

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- Label elements
- Labelling according to OSHA Hazard Communication Standard (29 CFR 1910.1200)
- Hazard pictograms



GHS05 GHS07 GHS08

- Signal word *Danger*
- Hazard-determining components of labeling:
2-Oxepanone, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-hydroxyethyl acrylate-blocked (5-ethyl-1,3-dioxan-5-yl)methyl acrylate
Titanium dioxide
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate
- Hazard statements
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer. Route of exposure: Inhalation.
H335 May cause respiratory irritation.
- Precautionary statements
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 handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 If on skin: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center/doctor.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Hazards not otherwise classified (HNOC) No further relevant information available.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description:
Mixture of the substances listed below with nonhazardous additions.
For the wording of the listed hazard statements refer to Section 16.

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· Composition:		
CAS: 66492-51-1	(5-ethyl-1,3-dioxan-5-yl)methyl acrylate ⚠ Skin Irritation 2, H315; Sensitization - Skin 1B, H317	45%
CAS: 84170-74-1	Poly[oxy(methyl-1,2-ethanediyl)], α,α'-(2,2-dimethyl-1,3-propanediyl)bis[ω-[(1-oxo-2-propen-1-yl)oxy]-	28%
CAS: 68987-79-1	2-Oxepanone, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-hydroxyethyl acrylate-blocked ⚠ Eye Damage 1, H318; ⚠ Skin Irritation 2, H315; Sensitization - Skin 1, H317; Specific Target Organ Toxicity - Single Exposure 3, H335	20%
CAS: 84434-11-7	Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate ⚠ Sensitization - Skin 1B, H317	5%
CAS: 13463-67-7	Titanium dioxide ⚠ Carcinogenicity 2, H351	1.5%
CAS: 1333-86-4	Carbon black	0.5%

4 First-aid measures

· **Description of first aid measures**

· **General description:**

Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.

· **After inhalation:**

Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth artificial respiration if victim ingested or inhaled the substance. If not breathing, give cardiopulmonary resuscitation and consult a physician immediately.

· **After skin contact:**

Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feeling uncomfortable.

· **After eye contact:**

In case of contact may cause irritation, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician immediately if eyes are hurt.

· **After swallowing:**

Do not induce vomiting. Never feed anything into the mouth of an unconscious person. Call a physician or Poison Control Center immediately.

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture:** No further relevant information available.

· **Special protective equipment and precautions for firefighters**

· **Protective equipment:** No special measures required.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

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Trade name: ABS-Like Photopolymer Resin

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· Environmental precautions:

Do not allow product to reach sewage system or any water course.
 Inform respective authorities in case of seepage into water course or sewage system.
 Dilute with plenty of water.
 Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Use neutralizing agent.
 Dispose contaminated material as waste according to section 13.
 Ensure adequate ventilation.

7 Handling and storage

· Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.
 For the general occupational hygienic measures refer to Section 8.

· Information about protection against explosions and fires: No special measures required.**· Conditions for safe storage, including any incompatibilities****· Requirements to be met by storerooms and receptacles: No special requirements.****· Information about storage in one common storage facility:**

Store away from foodstuffs.
 Store away from water.

· Further information about storage conditions: Keep receptacle tightly sealed.

8 Exposure controls/personal protection

· Components with limit values that require monitoring at the workplace:**CAS: 13463-67-7 Titanium dioxide (1.5%)**

PEL (USA)	Long-term value: 15* mg/m ³ *total dust
REL (USA)	See Pocket Guide App. A
TLV (USA)	Long-term value: 0.2* 2.5** mg/m ³ resp. fraction, *nanoscale, **finescale, A3

CAS: 1333-86-4 Carbon black (0.5%)

PEL (USA)	Long-term value: 3.5 mg/m ³
REL (USA)	Long-term value: 3.5* mg/m ³ *0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV (USA)	Long-term value: 3* mg/m ³ *inhalable fraction, A3

· Regulatory information

PEL (USA): Guide to Occupational Exposure Values (OSHA PELs)
 REL (USA): Guide to Occupational Exposure Values (NIOSH RELs)
 TLV (USA): Guide to Occupational Exposure Values (TLV)

· Additional information: The lists that were valid during the creation were used as basis.**· Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure.****· Appropriate engineering controls:**

Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Avoid contact with the skin.

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Avoid contact with the eyes and skin.

See Section 7 for information about design of technical facilities.

- **Individual protection measures, such as personal protective equipment**

- **Breathing equipment:**

If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.

- **Hand protection:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Wear protective gloves (such as butyl rubber), passing the tests according to EN 374(EU), US F739 or AS/ NZS 2161.1 standard.

- **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eyeface protection:** Wear protective goggle (Conform to EC EN 166 or US-NIOSH).

9 Physical and chemical properties

- **General Information**

- **Appearance:**

Form: Liquid

Color: Grey

- **Odor:** It is considered mildly irritating.

- **Odor threshold:** Not available

- **pH-value:** 6.8-7.2

- **Change in condition**

Melting point/Freezing point: -60 °C (-76 °F)

Initial boiling point and boiling range: 140 °C (284 °F)

- **Flash point:** >250 °C (>482 °F)

- **Flammability** Not available

- **Auto-Ignition temperature:** >450 °C (>842 °F)

- **Decomposition temperature:** >250 °C (>482 °F)

- **Lower and upper explosion limit**

Lower: Not available

Upper: Not available

- **Vapor pressure:** <0.01 mmHg

- **Density:** Not available

- **Relative density at 25 °C (77 °F):** 1.05

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- | | |
|---|--|
| · Vapor density: | Not available |
| · Evaporation rate: | Not available |
| · Solubility in / Miscibility with Water: | Microsoluble in water |
| · Partition coefficient (n-octanol/water): | Not available |
| · Viscosity: | |
| Dynamic at 25 °C (77 °F): | 200-400 mPas |
| Kinematic: | Not available |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under recommended storage and handling conditions
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Humidity, sunlight, high temperature
- **Incompatible materials:** Strong oxide, acid and alkali, Strong reducing agent
- **Hazardous decomposition products:**
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

CAS: 13463-67-7 Titanium dioxide

Oral	LD50	>20,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)

CAS: 1333-86-4 Carbon black

Oral	LD50	10,000 mg/kg (rat)
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- **Skin corrosion/irritation:** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation:** Strong irritant with the danger of severe eye injury.
- **Respiratory or skin sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

13463-67-7	Titanium dioxide	2B
1333-86-4	Carbon black	2B

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|---|---|
| · UN-Number | UN3082 |
| · DOT, IMDG, IATA | |
| · UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. ((5-ethyl-1,3-dioxan-5-yl)methyl acrylate, Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate) |
| · DOT | |
| · IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((5-ethyl-1,3-dioxan-5-yl)methyl acrylate, Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate), MARINE POLLUTANT |
| · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((5-ethyl-1,3-dioxan-5-yl)methyl acrylate, Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate) |
| · Transport hazard class(es) | |
| · DOT, IMDG, IATA | |
|   | |
| · Class | 9 Miscellaneous dangerous substances and articles |
| · Label | 9 |
| · Packing group | |
| · DOT, IMDG, IATA | III |

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· Environmental hazards:	
· Marine pollutant:	Yes Yes (DOT) Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· Special precautions for user	Warning: Miscellaneous dangerous substances and articles
· EMS Number:	F-A,S-F
· Stowage Category	A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 450 L On cargo aircraft only: 450 L
· Remarks:	Special marking with the symbol (fish and tree).
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((5-ETHYL-1,3-DIOXAN-5-YL)METHYL ACRYLATE, ETHYL PHENYL(2,4,6-TRIMETHYLBENZOYL) PHOSPHINATE), 9, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Sara**· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

66492-51-1	(5-ethyl-1,3-dioxan-5-yl)methyl acrylate	ACTIVE
84170-74-1	Poly[oxy(methyl-1,2-ethanediyl)], α,α' -(2,2-dimethyl-1,3-propanediyl)bis[ω -(1-oxo-2-propen-1-yl)oxy]-	ACTIVE
68987-79-1	2-Oxepanone, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-hydroxyethyl acrylate-blocked	ACTIVE
13463-67-7	Titanium dioxide	ACTIVE
1333-86-4	Carbon black	ACTIVE

· **Proposition 65**· **Chemicals known to cause cancer:**

13463-67-7	Titanium dioxide
1333-86-4	Carbon black

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· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· New Jersey Right-to-Know List:

13463-67-7 Titanium dioxide

1333-86-4 Carbon black

· New Jersey Special Hazardous Substance List:

1333-86-4 Carbon black

CA

· Pennsylvania Right-to-Know List:

13463-67-7 Titanium dioxide

· Pennsylvania Special Hazardous Substance List:

None of the ingredients is listed.

· Cancerogenity categories**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· TLV (Threshold Limit Value)

13463-67-7 Titanium dioxide

A4

1333-86-4 Carbon black

A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

13463-67-7 Titanium dioxide

1333-86-4 Carbon black

16 Other information**· Relevant hazard statements**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

The contents and format of this SDS are in accordance with 29 CFR 1910.1200.

DISCLAIMER OF LIABILITY

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

· Date of preparation / last revision 01/10/2024**· Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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*EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**NIOSH: National Institute for Occupational Safety**OSHA: Occupational Safety & Health**Skin Irritation 2: Skin corrosion/irritation – Category 2**Eye Damage 1: Serious eye damage/eye irritation – Category 1**Sensitization - Skin 1: Skin sensitisation – Category 1**Sensitization - Skin 1B: Skin sensitisation – Category 1B**Carcinogenicity 2: Carcinogenicity – Category 2**Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3*

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USA