# SDS Report

No.: CANEC1917010301 Date: 30 Aug 2019 Page 1 of 1

SHENZHENSHI ZHINENGPAI TECHNOLOGY CO., LTD
RM A205 WEIDONGLONG BUSINESS BUILDING, MEILONG AVENUE, LONGHUA DISTRICT, SHENZHEN

| | | |
|---|---|---|
| SGS Job No. | : | CP19-047596 |
| Sample Name | : | ELEGOO Plant-based Resin |
| End Uses | : | 3D Printing material |
| Composition/Ingredient of sample (as per client submission) | : | See *section 3 Composition/information on ingredients* on the SDS report |
| Job Receiving Date | : | 28 Aug 2019 |
| SDS Preparation Period | : | 28 Aug 2019-30 Aug 2019 |
| Service Requested | : | Safety Data Sheet (SDS) for the sample with submitted composition. |
| Summary | : | As per request, the contents and formats of the SDS are prepared in accordance with European Commission Regulation (EC) No 1907/2006, Regulation (EC) No 1272/2008 and Regulation (EU) No 2015/830, and is provided per attached. |

Remark:

1.The SDS is prepared based on the information provided by client.

2.N-(Dimethylcarbamoyl)glycine (CAS No. 1060817-29-9) is not classified in this SDS, as no information was found in company and literature data, and client cannot provide SDS(s) for classification.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Zmguan

Zm guan
Approved Signatory

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Testing Center Chemical Laboratory.

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# Safety data sheet
## Regulation (EC) No. 1907/2006 and 1272/2008

Printing date 30.08.2019 Version number 1 Revision: 30.08.2019

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

· **1.1 Product identifier**
· Trade name: ELEGOO Plant-based Resin

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· **Application of the substance / the mixture:** 3D Printing material

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer / Supplier:** SHENZHENSHI ZHINENGPAI TECHNOLOGY CO., LTD
· **Full address:**
RM A205 WEIDONGLONG BUSINESS BUILDING, MEILONG AVENUE, LONGHUA DISTRICT, SHENZHEN
· **Phone number:** +86-18927469351
· **Email:** kevin@elegoo.com

· **Only Representative / other EU contact point:** Not available

· **Further information obtainable from:** SHENZHENSHI ZHINENGPAI TECHNOLOGY CO., LTD

· **1.4 Emergency telephone number:**
GERMANY
Poison Center Berlin - Institute of Toxicology
Tel: +49 030 192 40

· **1.5 Reference Number:** CP19-047596, CANEC1917010301

## SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

GHS07

| | |
|---|---|
| Skin Irrit. 2 | H315 Causes skin irritation. |
| Eye Irrit. 2 | H319 Causes serious eye irritation. |
| Skin Sens. 1 | H317 May cause an allergic skin reaction. |

· **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of Regulation (EC) No.1272/2008.

· **Classification system:**
The classification is according to the latest edition of EU Regulation (EC) No. 1272/2008, and extended by company and literature data.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No. 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms**

GHS07 GHS09

· **Signal word** Warning

· **Hazard-determining components of labelling:**
Epoxy resins

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hexamethylene diacrylate

· **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

| | |
|---|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P103 | Read label before use. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves / eye protection / 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. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |

· **2.3 Other hazards:**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:**
Mixture of the substances listed below with nonhazardous additions.
For the wording of the listed hazard statements refer to section 16.

· **Composition:**

| | | |
|---|---|---|
| CAS: 61788-97-4 | Epoxy resins<br>Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 | 50.0% |
| CAS: 13048-33-4<br>EINECS: 235-921-9<br>Index number: 607-109-00-8 | hexamethylene diacrylate<br>Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 | 40.0% |
| CAS: 1060817-29-9 | N-(Dimethylcarbamoyl)glycine | 5.0% |
| CAS: 947-19-3<br>EINECS: 213-426-9 | hydroxycyclohexyl phenyl ketone | 5.0% |

## SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General description:** Immediately remove any clothing soiled by the product.
· **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing:** If symptoms persist consult doctor.

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

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## Regulation (EC) No. 1907/2006 and 1272/2008



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· **4.3 Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

## SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

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

· **5.3 Advice for firefighters**
· **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures:** Not required.

· **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water sourse.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.

· **6.4 Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

## SECTION 7: Handling and storage

· **7.1 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 fire - and explosion protection:** No special measures required.

· **7.2 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:** Not required.
· **Further information about storage conditions:** Keep container tightly sealed.

· **7.3 Specific end use(s):** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

| · **Ingredients with limit values that require monitoring at the workplace:** | |
|---|---|
| **13048-33-4 hexamethylene diacrylate (40.0%)** | |
| MAK (Germany) | als Dampf und Aerosol;vgl.Abschn.IV |

· **Regulatory information** MAK (Germany): MAK- und BAT-Liste
· **DNELs:** Not available
· **PNECs:** Not available

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· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
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
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
See Section 7 for information about design of technical facilities.

· **Personal protective equipment**
· **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
· **Protection of hands:**

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.
· **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.
· **Eye protection:**

Tightly sealed goggles

· **Environmental exposure controls:**
Control measures must be made in accordance with Community environmental protection legislation.

## SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **Appearance**

| | |
|---|---|
| **Form:** | Liquid |
| **Colour:** | Violet |
| · **Odour:** | Ester-like |
| · **Odour threshold:** | Not available |
| · **pH-value:** | Not available |
| · **Change in condition** | |
| **Melting point/Freezing point:** | Not available |
| **Initial boiling point and boiling range:** | Not available |

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| | |
|---|---|
| · **Flash point:** | Not available |
| · **Flammability (solid, gas):** | Not available |
| · **Auto-ignition temperature:** | Not available |
| · **Decomposition temperature:** | Not available |
| · **Self-igniting:** | Product is not selfigniting. |
| · **Explosive properties:** | Product does not present an explosion hazard. |
| · **Explosion limits** | |
| **Lower:** | Not available |
| **Upper:** | Not available |
| · **Oxidising properties:** | Not available |
| · **Vapour pressure:** | Not available |
| · **Density:** | Not available |
| · **Relative density:** | Not available |
| · **Vapour density:** | Not available |
| · **Evaporation rate:** | Not available |
| · **Solubility in / Miscibility with water:** | Not available |
| · **Partition coefficient: n-octanol/water:** | Not available |
| · **Viscosity** | |
| **Dynamic:** | Not available |
| **Kinematic:** | Not available |
| · **9.2 Other information** | No further relevant information available. |

## SECTION 10: Stability and reactivity

· **10.1 Reactivity:** Data not available

· **10.2 Chemical stability:** Data not available

· **10.3 Possibility of hazardous reactions:** No dangerous reactions known.

· **10.4 Conditions to avoid:** No further relevant information available.

· **10.5 Incompatible materials:** No further relevant information available.

· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

**13048-33-4 hexamethylene diacrylate**

| | | |
|---|---|---|
| Oral | LD50 | >5,000 mg/kg (rat) |
| Dermal | LD50 | >3,000 mg/kg (rab) |

· **Skin corrosion/irritation:**
Causes skin irritation.

· **Serious eye damage/irritation:**
Causes serious eye irritation.

· **Respiratory or skin sensitization:**
May cause an allergic skin reaction.

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· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability:** No further relevant information available.

· **12.3 Bioaccumulative potential:** No further relevant information available.

· **12.4 Mobility in soil:** No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

· **12.7 Additional ecological information:**
· **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

## SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation:**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging**
· **Recommendation:** Disposal must be made according to official regulations.

## SECTION 14: Transport information

| | |
|---|---|
| · **14.1 UN-Number** | |
| · **ADR/RID/ADN, IMDG, IATA** | UN3082 |
| · **14.2 UN proper shipping name** | |
| · **ADR/RID/ADN, IATA** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resins) |
| · **IMDG** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resins), MARINE POLLUTANT |

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## Regulation (EC) No. 1907/2006 and 1272/2008

*Printing date 30.08.2019* *Version number 1* *Revision: 30.08.2019*

***Trade name: ELEGOO Plant-based Resin***

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· **14.3 Transport hazard class(es)**

· **ADR/RID/ADN, IMDG, IATA**

| | |
|---|---|
| · **Class** | 9 Miscellaneous dangerous substances and articles. |
| · **Label** | 9 |

| | |
|---|---|
| · **14.4 Packing group** | |
| · **ADR/RID/ADN, IMDG, IATA** | III |

| | |
|---|---|
| · **14.5 Environmental hazards** | |
| · **Marine pollutant:** | Symbol (fish and tree) |
| · **Special marking (ADR/RID/ADN):** | Symbol (fish and tree) |
| · **Special marking (IATA):** | Symbol (fish and tree) |

| | |
|---|---|
| · **14.6 Special precautions for user:** | Warning: Miscellaneous dangerous substances and articles. |
| · **Danger code (Kemler):** | 90 |
| · **EMS Number:** | F-A,S-F |
| · **Stowage Category** | A |

| | |
|---|---|
| · **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** | Not applicable |

· **14.8 Transport/Additional information:**

| | |
|---|---|
| · **ADR/RID/ADN** | |
| · **Limited quantities (LQ):** | 5L |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · **Transport category:** | 3 |
| · **Tunnel restriction code:** | - |
| · **IMDG** | |
| · **Limited quantities (LQ)** | 5L |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · **UN "Model Regulation":** | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESINS), 9, III |

## SECTION 15: Regulatory information

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

· **MAK(German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category** E2 Hazardous to the Aquatic Environment
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
· **National regulations:**

· **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

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· **Other regulations, limitations and prohibitive regulations**

· **SVHC Candidate List of REACH Regulation Annex XIV Authorisation (16/7/2019)**

None of the ingredients is listed

· **REACH Regulation Annex XVII Restriction (20/06/2019)**
**See Section 16 for information about restriction of use.**

None of the ingredients is listed

· **REACH Regulation Annex XIV Authorisation List (13/6/2017)**

None of the ingredients is listed

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

· **Relevant hazard statements**
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

· **Classification according to Regulation (EC) No. 1272/2008**

| | |
|---|---|
| Skin corrosion/irritation<br>Serious eye damage/eye irritation<br>Skin sensitisation<br>Hazardous to the aquatic environment - long-term (chronic) aquatic hazard | The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No. 1272/2008. |

· **********

The contents and format of this SDS are in accordance with Regulation (EC) No 1907/2006, 1272/2008 and Regulation (EU) No 2015/830.

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· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
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