

Safety Data Sheet for Chemical Products

YONGCHANGHE Safety data sheet

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version: 1.0

Part 1: Identification of the substance/preparation and company

1.1 Product Name : DLP/SLA/LCD 3D Printer photosensitive resin

1.2 Product Model : Denture base resin

1.3 Main Application: 3D printing material

1.4 Applicant Name : SHENZHEN YONGCHANGHE TECHNOLOGY CO.,LTD.

1.5 Applicant Address: 1001, Huaide international building, No. 73, Fuyong section,

Guangshen Road, Fuyong community, Fuyong street,

Bao'an District, Shenzhen

1.6Manufacturer Tel : 0755-27889946

1.7Manufacturer Email: <u>INFO@JAMGHE.COM</u>

1.8Emergency Phone : 18566622993

Part 2: Hazard Information

2.1 Hazard Class (GHS):

According to Globally Harmonized System of Classification and Labeling of Chemicals (GHS) (part 2~4), classification of risk categories.

Skin corrosion/irritation: categories 2

Skin sensitization: categories 1

Chronic hazards to water environment: categories 2

Serious eye damage/eye irritation: categories 1

STOT SE Respiratory irritation: categories 3

2.2 Pictogram:



2.3 Warning:

Warning

2.4 Hazard statement:

H315 Causes skin irritation

H317 May cause skin allergies

H318 Causing serious eye damage

H335 May cause respiratory irritation

H411 Toxic to aquatic life with long lasting effects

2.5 Precautionary statements:

P261	Avoid breathing dust/fume/gas/mist/vapor/spray
1 201	Trible breathing dustriante/gas/mistriapor/spray

P264 Wash hand and face thoroughly after handling

P271 Use only outdoors or in a well-ventilated area

P272 Contaminated work clothes are not allowed to be taken out of the workplace

P273 Avoid releasing into the environment

P280 Wear protective gloves/protective clothing/eye protection/face protection

P264 + P265 Wash hand and face thoroughly after handling .Do not touch your eyes

2.6 Incident Response:

P332 + P317	If skin irritation occurs	seek medical advice

P333 + P317 If skin irritation or rash, seek medical advice

P302 + P352 Skin contamination, Wash with plenty of soap and water.

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

P304 + P340 If inhaled,remove person to fresh air and keep comfortable for

breathing

P391 Collect spillage.

P305 + P354 + P338 If comes into contact with eyes flush them with water for a

few minutes.if wearing contact lenses,pls take out and wash.

2.7 Safe storage :

P403 + P233 Store in a well-ventilated place. Keep the container airtight.

P405 Locked up

2.8 Waste disposal method:

P501 Dispose of contents/container in accordance with local, regional and international regulations or(to the hazardous waste or special waste collection company for disposal).

2.9 Other hazards but not classified:

This section provides applicable additional hazard information that does not affect the classification but may affect the overall hazard of the substance or mixture.

Part 3: Ingredients information

chemical property: mixture

Harzard group

Substance name	CAS NO.	Purity	Mixture	Concentration	Component proportion
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate	66492-51-1	√	/	100%	43%
Ethoxylated trimethylolpropane triacrylate	28961-43-5	√	/	100%	28%
2-Oxepanone, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-tri methylcyclohexane, 2-hydroxyethyl acrylate-blocked,	68987-79-1	V	/	100%	22%
[bis(4-methylphenyl)phosphoryl](mesityl) methanone	270586-78-2	√	/	100%	5%
Titanium dioxide	13463-67-7	√	/	100%	0.50%
Calcium 3-hydroxy-4-[(4-methyl-2-sulphonatophen yl)azo]-2-naphthoate	5281-04-9	V	/	100%	1.50%

Part 4: Emergency treatment

General advice: 1. Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance. 2. Take off contaminated clothing.

4.1 Inhalation:

Keep the patient calm, move to a place with fresh air, and seek medical treatment. According to the symptoms, corticosteroid aerosols can be inhaled.

4.2 Skin contact:

Immediately remove contaminated clothing. Immediately rinse thoroughly with plenty of water, apply disinfectant bandages, and seek treatment from a dermatologist

4.3 Eye contact:

Flip the eyelids and immediately rinse with flowing water for at least 15 minutes.

Consult an ophthalmologist. If your eyes are injured, seek medical attention immediately.

4.4 Igestion:

Immediately clean your mouth, then drink 200-300 milliliters of water and seek medical attention. Immediately call a doctor or poison control center.

4.5 Notes for doctors:

Symptoms: The most important known symptoms and effects are described in part 2/part 11.

Hazards: There will be no harm when operated properly for the intended purpose

Treatments: Symptomatic treatment (removing dirt, paying attention to vital signs), no specific antidote

Part 5: Firefighting measures

5.1 Hazardous Characteristics:

No fire hazard.

5.2 Fire extinguishing agent:

Dry powder, chemical foam, carbon dioxide, water mist

5.3 Firefighting security measures:

When extinguishing a fire, a breathing mask (compliant with MSHA/Nlosh requirements or equivalent) should be worn and full body protective clothing should be worn.

Extinguish the fire at a safe distance with sufficient protection.

Take all preventive measures to avoid mixing with combustible materials.

5.4 Harmful combustion products:

Carbon monoxide, organic volatiles

Part 6: Emergency measures for leakage

6.1 Personal precautions:

Wear appropriate protective measures (refer to Part 8).

6.2 Environmental precautions:

Do not let the product come into contact with the sewage system or any water source. If it seeps into the water source or sewage system, please notify

Close the department and do not allow it to enter the sewer/water surface or groundwater.

6.3 Cleaning method:

Remove by liquid absorbing material (e.g. kieselguhr, sand).

Adhered or collected material should be promptly disposed of. Disposal of discarded waste/pollutants refers to SECTION 13,clean up with detergent and avoid solvents.

Part 7: Safety handling and storage

7.1 Handling Notes:

Ensure a good ventilation/exhaust system in the workplace.

Stay away from heat sources/sparks/open flames/hot surfaces. Smoking is prohibited.

Can only be used outdoors or in well ventilated areas.

7.2 Storage Notes:

Isolate from food and animal feed or do not store with incompatible substances (refer to 10.2).

Detailed information about storage conditions: The container should be strictly sealed and stored in a dry and cool place. Due to the product absorbing moisture from the air, it is necessary to keep the container dry. Prevent heating. Anti light effect. Stabilizers only take effect in the presence of oxygen. Ensure sufficient levels of inhibitors and dissolved oxygen.

Prevent temperature from falling below: 0 ° C

When the storage temperature is below the specified temperature for a certain period of time, the product performance can change.

Prevent temperature from exceeding: 40 ° C

Part 8 Exposure controls / personal protection

8.1 Monitor method (specification):

No relevant data

8.2 Engineering Control:

Maintain material sealing and indoor ventilation during the production process. Use local exhaust and ventilation under reasonable and feasible conditions. If ventilation

cannot keep the concentration of particles and solvent vapors in the environment below the occupational exposure limit, appropriate respirators should be worn.

8.3 Personal protection

General requirements:	
Respiratory:	If the vapor concentration exceeds the occupational exposure limit or symptoms such as irritation occur, please use a full face multi-functional gas mask (US) or AXBEK type (EN 14387) gas mask cartridge
Eyes:	Wear protective goggle (Conform to EC EN 166 or US-NIOSH).
Hands:	Wear protective gloves (such as butyl rubber), passing the tests according to EN 374(EU),US F739 or AS/NZS 2161.1 standard.

8.4 Sanitary Measure:

Smoking and eating are prohibited in the work area. Washing hands after operating or using this product .

Part 9: Physical and chemical properties

Appearance and Color	Pink flowing liquid
Odour	Slight odor
PH value	6.8-7.2
Flammability	Noncombustible
Relative density (g/cm³)	1.05g/cm³ (25°C)
Relative vapor densit (g/L)	>1
Vapor pressure (MPa)	<0.01mmHg
Octanol/ Water Partition	none
Coefficients	
Viscosity (mPa·s)	250-450 (mPa·s) (25℃)
Flash point (°C,closed cup)	>250
Boiling point ($^{\circ}$ C)	140
Melting/freezing point (℃)	-60
Evaporation rate (kg/s)	none

upper explosive limit% (V/V)	inapplicable
lower explosive limit (V/V)	inapplicable
Self ignition temperature	>450
(℃)	
Decompose temperature (℃)	>250
Solubility	Slightly soluble in water, soluble in organic
	solvents such as benzene, alcohol, and
	ether

Part 10: Stability and reactivity

10.1 Stability:

Stable under recommended storage and handling conditions (See part 7).

10.2 Material for avoiding:

Strong oxide, acid and alkali, Strong reducing agent.

10.3 Contact conditions for avoiding:

Humidity, high temperature, sunlight.

10.4 Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Part 11: Toxicological information

11.1 Acute toxicity:

Although no data of known appropriate health effects on humans or animals exist, this substance is expected to be mildly injurious in ingestion.

11.2 Skin corrosion/irritation:

Causes skin irritation

11.3 Serious eye damage/irritation:

Cause severe eye irritation, with symptoms including severe pain, burning sensation, tearing or swelling.

11.4 Respiratory or skin sensitization:

May causes skin allergic reaction.

11.5 Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

11.6 Carcinogenicity:

Based on available data, the classification criteria are not met.

11.7 Reproductive toxicity

Based on available data, the classification criteria are not met.

11.8 STOT-single exposure:

May cause respiratory irritation.

11.9 STOT-repeat exposure:

Based on available data, the classification criteria are not meet.

11.10 Inhalation harzard:

low volatility of this product under normal use, it is not expected to cause obvious harmful symptoms to health. However, if the temperature is raised during the process, gas or vapor may be produced, which can irritate the respiratory tract. Symptoms of respiratory irritation may include coughing, mucus secretion, and shortness of breath.

Part 12: Ecological information

12.1 Toxicity:

Aquatic toxicity evaluation:

Harmful to aquatic life. Toxicity to aquatic life and has long lasting effects. Product untested. This statement is based on the properties of individual components.

12.2 Persistence and degradability:

No relevant data.

12.3 Bioaccumulative potential:

No relevant data

12.4 Mobility in soil

No relevant data

12.5 Other damage:

PBT and vPVB evaluation results: inapplicable

Part 13: Disposal considerations

13.1 Handling method for waste:

According to the local regulations. Contact specific waste disposal company or companies recommended by local laws.

13.2 Handling method for uncleaned packaging

Polluted package:

According to the country or local regulations .

Empty contaminated package as much as possible and dispose of it in the same way as the substance/product.

Part 14: Transport information

This is not classified as a hazardous/dangerous material under IATA, IDMG, DOT regulations.

Packing label	none
UN No.	UN 3082
Transport name	none
Main hazard class	none
Subsidiary hazard class	none
Packing group	none

More information

When the product is packaged with a capacity not exceeding 5L, it can be transported as ordinary goods without being restricted by other requirements related to the transportation of dangerous goods when it meets the special provisions 375 in ADR, RID, ADN, 2.10.2.7 in IMDG, A197 in IATA, 99 (2) in TDG, 171.4 (c) (2) in 49 CFR, and special provisions 375 in Appendix B of Part 3: Product Name and Transportation Requirements Index of China's Road Transport Rules for Dangerous Goods (JT/T617.3)

Part 15: Laws and regulations

This product is subject to the provisions of "Hazardous Chemical Safety Management Regulations", which refer to Section 14 of this SDS for classification of dangerous goods.

Other regulations

If regulations applicable to this product is not provided elsewhere in this safety technical note, it will be described in this section.

Registration Status:

IECSC, CN

All substances are listed in IECSC.

This safety technical specification is made according to "General rule for classification and hazard Shenzhen Yongchanghe Technology Co.,LTD.

communication of chemicals"(if the product is applied to medicine), This product is subject to the provisions of "Drug Administration Law of the People's Republic of China"(if the product is applied to medicine), "the regulations on the Administration of Feed and Feed Additives" (if the product is applied to feed) and "Food Safety Law of the People's Republic of China" (if the product is applied to food)

Part 16: Other information

Any other use should be discussed with the manufacturer.

The information in this MSDS is obtained from sources we believe to be reliable. However, we have no express or implied warranty on the data provided. The handling, storage, use or disposal of this product is beyond our control and may exceed our knowledge. Under no circumstances will we be liable for any loss, damage and related costs arising from improper handling, storage, use or disposal of this chemical. This MSDS is based on this product and can only be used for this product.

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