

Safety Data Sheet for Chemical Products

YONGCHANGHE Safety data sheet

According to GB/T 16483 as amended from time to time.

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SECTION 1. Identification of the substance/preparation and company

- 1.1 Product Name: DLP/SLA/LCD 3D Printer Photopolymer Resin
- 1.2 Product Model: Surgical Guide 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
- 1.6 Manufacturer Tel: 0755-27889946
- 1.7 Manufacturer Email: INFO@JAMGHE.COM
- 1.8 Emergency Phone: 18566622993

SECTION 2. Hazards identifications

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

Sensitization, skin, categories 1

Serious eye damage/eye irritation, categories 2A

Aquatic Chronic 2

2.2 Pictograms:



2.3 Signal word:

Warning

2.4 Hazard description:

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

2.5 Precautionary description:

P261 Avoid breathing dust/fume/gas/mist/vapor/spray

P264 Wash hand and face thoroughly after handling

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 Accident response:

P332+P317 If skin irritation occurs, seek medical attention.

P333+P317 If skin irritation or rash occurs, seek medical attention.

P302+P352 If on skin: Wash with plenty of soap and water.

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

P337+P317 If eye irritation persists: Get medical advice/attention.

P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P391 Collect spillage.

2.7 Disposal of waste:

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).

2.8 Other hazards that do not fall under classification:

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

SECTION 3. Composition / information on ingredients

Ingredient(s) of the product: Mixture

Substance name	CAS NO.	Purity	Mixture	Concentration	Component proportion
7,7,9-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	41137-60-4	√	/	100%	45%
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	√	/	100%	30%
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate	66492-51-1	√	/	100%	20%
Ethyl phenyl (2,4,6-trimethylbenzoyl) phosphinate	84434-11-7	√	/	100%	5%

SECTION 4. First aid measures

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 Following inhalation:

Keep victim calm,move to fresh air,and consult a physician. Corticosteroid spray may be inhaled depending on the condition.

4.2 Following skin contact:

Take off contaminated clothing and shoes immediately. Wash immediately and thoroughly with plenty of water, apply a sterile bandage, and consult a dermatologist.

4.3 Following eye contact:

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

4.4 Following ingestion:

Wash your mouth immediately, then drink 200-300 mL of water and seek medical attention. Call a doctor or poison control immediately.

4.5 Notes for doctors:

Symptoms:The most important known symptoms and effects are described in section2/section11.

Hazards:There is no hazards in the intended use and when done properly.

Treatments:Symptomatic treatment (removal of dirt,pay attention to vital signs),no specific antidotes.

SECTION 5. Firefighting measures

5.1 Hazardous Characteristics:

No fire hazard.

5.2 Extinguishing Media:

Dry powder, chemical foam, carbon dioxide, water mist

5.3 Firefighting procedures:

As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.

Fight fires at a safe distance and with adequate protection.

Take all precautions to avoid mixing with combustibles.

5.4 Hazardous combustion products:

Carbon monoxide, organic volatiles

SECTION 6. Accidental release measures

6.1 Personal precautions:

Wear appropriate protective measures (SEE SECTION 8).

6.2 Environmental precautions:

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

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.

SECTION 7. Safe handling and storage

7.1 Handling Notes:

Keep indoor ventilation or local exhaust device.

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

Use only outdoors or in a well-ventilated area.

7.2 Storage Notes:

Separate from food and animal feed or do not store with incompatible substances (see Section 10.2)

Details on storage conditions: Containers should be tightly sealed and stored in a dry, cool place. Since the product absorbs moisture from the air, keep the container dry. Protect from heat. Protection against light effects. Stabilizers only work in the presence of aerobic conditions. Ensure adequate inhibitor and dissolved oxygen levels.

Prevent temperatures below: 0°C

When the storage temperature is below the limit temperature for more than a certain period of time, the product performance can be changed.

Prevent temperatures above: 40°C

Storage temperatures above the limit temperatures for a period of time, the product performance can be changed.

SECTION 8. Exposure controls / personal protection

8.1 Occupational Exposure Limit:

No relevant data

8.2 Engineering Control:

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

Ensure that eyewash stations and safety showers are proximal to the work-station location.

8.3 Personal Protection:

General requirement:	
Respiratory:	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.
Eyes:	Wear protective goggles (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:

Forbid smoking, eating and drinking in working places. Washing hands after handling products.

SECTION 9. Physical and chemical properties

Appearance and Color	Transparent flowing liquid
Odour	Slight odor
PH value	6.8-7.2
Flammability	Noncombustible
Relative density (g/cm ³)	1.05g/cm ³ (25℃)
Relative vapor density (g/L) (air = 1)	> 1
Vapor pressure(MPa)	<0.01mmHg
Octanol/water partition coefficient	No Data
Viscosity (mPa·s)	120-180 (mPa·s) (25℃)
Flash point(℃,Closed cup)	>250
Boiling point(℃)	140
Melting/freezing point (℃)	-60
Evaporation rate (kg/s)	No Data
UEL% (V/V)	Not Applicable
LEL% (V/V)	Not Applicable
Auto-ignition temperature(℃)	>450
Decomposition temperature(℃)	>250
Solubility	Slightly soluble in water, soluble in organic solvents such as benzene, alcohol, ether

SECTION 10. Stability and reactivity

10.1 Stability:

Stable under recommended storage and handling conditions (See section 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.

SECTION 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:

Exposure to products can cause severe eye irritation, with symptoms including severe pain, burning, tearing or swelling.

11.4 Respiratory or skin sensitization:

May cause 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:

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

11.9 STOT-repeated exposure:

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

11.10 Aspiration hazard:

Low volatility of the product under normal conditions of use. There are no symptoms that are harmful to health. Gas or vapor may be produced when the temperature is raised during the process. Causes irritation to the respiratory tract. Symptoms of respiratory irritation may include coughing, mucus secretion, and shortness of breath.

SECTION 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 data available.

12.3 Bioaccumulative potential:

No data available.

12.4 Mobility in soil

No data available.

12.5 Other Dangers:

PBT and vPVB evaluation results: Not applicable

SECTION 13. Disposal considerations

13.1 Handling method for waste:

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

13.2 Handling method for uncleaned packaging

The packaging bottle must be emptied and then disposed of according to official regulations.

SECTION 14. Transport information

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

Packaging Label	None
UN NO	UN 3082
Technical name	None
Transport hazard class	None
Subsidiary hazard class	None
Packing group	None

More information:

When the product is packaged in a capacity below 5L and satisfy Special Regulation 375 in ADR,RID,ADN,2.10.2.7 in IMDG,A197 in IATA,Special Regulation 99(2)in TDG,Section 171.4(c)(2)in 49 CFR and the requirements of Special Provision 375 in Appendix B of Chinese “ Regulation concerning road transportation of dangerous goods-Part3:Index of dangerous goods name and transportation requirement ” (JT/T617.3),it can be transported as ordinary goods,and it is not subject to other requirements related to the transport of dangerous goods.

SECTION 15. Regulatory information

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 regulatory information 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 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)

SECTION 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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