



中国认可
检验
INSPECTION
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SAFETY DATASHEET

Product Name: 3D Printing Photopolymer Resin

Effective Date: 2023-07-07

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Shanghai Institute of Chemical Industry Testing Co., Ltd.



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Zhuhai Sunlu Industrial Co., Ltd

SAFETY DATA SHEET

3D Printing Photopolymer Resin

SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: 3D Printing Photopolymer Resin
Company: Zhuhai Sunlu Industrial Co., Ltd
Address: No. 38 Yongtian Road, Trade Logistics Centre Phase Two, Qianshan, Xiangzhou District, Zhuhai City, Guangdong Province, 519002, P.R.China
Email: pc21@sunlu.com
Fax: 86-756-3385636
Emergency Phone: 86-756-3385636
Recommend use of the chemical and restrictions on use: 3D Printing Photopolymer Resin. Inedibility, only for professional usage, etc.
SDS Number: 2623060236
Effective Date: 2023-07-07

SECTION2 HAZARDS IDENTIFICATION

GHS Classification:

Physical Hazards:
Not Classified

Health Hazards:
Serious eye damage/eye irritation Category 1
Skin sensitization Category 1
Carcinogenicity Category 2
Specific target organ toxicity-Repeated exposure Category 2

Environmental Hazards:
Classification not possible

This product contains 50% of ingredients which lack data or information for classification, and may have potentially unknown hazards to human health and the environment.

The hazards not mentioned are not applicable or no data available.

Label Elements:

Pictogram:



Signal Word:

Danger

Hazard Statements:

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

Prevention Precautionary Statements:

P264+P265 Wash hands thoroughly after handling. Do not touch eyes.

P272 Contaminated work clothing should not be allowed out of the workplace.

P203 Obtain, read and follow all safety instructions before use.

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

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Response Precautionary Statements:

P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P317 Get medical help.

P302+P352 IF ON SKIN: Wash with plenty of water

P333+P317 If skin irritation or rash occurs: Get medical help.

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

P318 IF exposed or concerned, get medical advice.

Storage Precautionary Statements:

P405 Store locked up.

Disposal Precautionary Statements:

P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

Other Hazards:

No data available.

SECTION3 INFORMATION ON INGREDIENTS

Product name: 3D Printing Photopolymer Resin

Ingredient	Concentration	CAS No.	EC No.
Mixtures:			
Urethane Acrylate	50%	68987-79-1	848-035-8
4-Acryloylmorpholine	25%	5117-12-4	418-140-1
Ethoxylated Trimethylolpropane Triacrylate	24.4%	28961-43-5	500-066-5
Color paste (white)	0.5%	13463-67-7	236-675-5
Color paste (black)	0.1%	1333-86-4	215-609-9

SECTION 4 FIRST-AID MEASURES**Skin Exposure:**

In case of skin contact, flush with copious amounts of water. If skin irritation or rash occurs, Call a physician.

Eye Exposure:

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes immediately. Assure adequate flushing by separating the eyelids with fingers. Call a physician immediately.

Inhalation Exposure:

If inhaled, remove to fresh air immediately. If the person feels unwell, Call a physician.

Oral Exposure:

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Most Important Symptoms/Effects, Acute and Delayed:

No data available.

Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary:

No data available.

SECTION 5 FIRE FIGHTING MEASURES**Suitable Extinguishing Media:**

Suitable: Dry chemical, Water spray, Carbon dioxide or appropriate foam.

Specific Hazards Arising from the Chemical:

Take care as it may decompose upon combustion or in high temperatures to generate Carbon oxides, nitrogen oxides, titanium oxides.

Special Protective Action for Fire-fighters:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Fire-extinguishing work is done from the windward. Uninvolved persons should evacuate to a safe place.

SECTION 6 ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures:**

Use personal protective equipment. Ensure adequate ventilation. Avoid breathing vapors, mist or gas. Cut off the source of the leakage as far as possible. Remove all ignition sources. Keep away from or be upwind of leakage or spillage area. Unnecessary personnel are prohibited from entering.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Avoid entering drains.

Methods and Materials for Containment and Cleaning up:

Mix with inert material (e.g. dry sand, vermiculite) and transfer to a dry, clean, lidded container for disposal. Avoid inhalation. Ventilate area and wash spill site after material pickup is complete.

SECTION 7 HANDLING AND STORAGE**Precautions for Safe Handling:**

Operators should be trained and strictly abide by operating procedures. Wear appropriate protective clothing and gloves. Avoid inhalation. Do not contact with eyes. Avoid contact with skin and clothing. Prevent generation of vapor or mist. Handling is performed in a well ventilated place. Keep away from ignition sources, heat and flame. Incompatibilities: Strong oxidizing agents, Polymerizing initiators, Free radical initiators, Peroxides. Handling and unloading should be light, to prevent packaging broken, damp and cause losses. Working place should be equipped with appropriate varieties and quantities of fire fighting equipment and leakage emergency treatment equipment.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Keep away from ignition sources, heat and flame. Incompatibilities: Strong oxidizing agents, Polymerizing initiators, Free radical initiators, Peroxides. Storage place should be equipped with appropriate varieties and quantities of fire fighting equipment and leakage emergency treatment equipment.

SECTION8 EXPOSURE CONTROL/PPE

Control Parameters:

GBZ 2.1-2019 Occupational Exposure Limits for Hazardous Agents in the Workplace - Part 1: Chemical Hazardous Agents:

Color paste (white): Titanium dioxide dust: PC-TWA 8 mg/m³ (total dust) Remarks: G2B
Carbon black dust: PC-TWA 4 mg/m³ (total dust); Remarks: G2B

ACGIH:

Color paste (white): TLV-TWA 0.2 mg/m³, Respirable particulate matter (nanoscale particles) TLV-TWA 2.5 mg/m³, Respirable particulate matter (fine-scale particles)

Carbon black: TLV-TWA: 3 mg/m³ (inhalable dust)

Appropriate Engineering Controls:

Mechanical exhaust required. Safety shower and eye bath.

Individual Protection Measures:

Eye/Face Protection:

Wear chemical safety glasses.

Skin Protection:

Hand Protection: Wear appropriate protective gloves.

Body Protection: Wear appropriate protective clothing.

Respiratory Protection:

Wear government approved respirator.

Thermal Hazards:

No data available.

Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Gray liquid
Odor:	Weak odor
pH Value:	Not applicable
Solubility:	Immiscible in water
Boiling Point, Initial Boiling Point and Boiling Range:	No data available

Melting Point/Freezing Point:	No data available
Flash Point (Closed Cup):	>96.0°C
Density/Relative Density:	No data available
Kinematic Viscosity:	No data available
Lower/Upper Explosion Limit/Flammability Limit:	No data available
Vapour Pressure:	No data available
Relative Vapor Density:	No data available
Partition Coefficient N-Octanol/Water (Log Value):	No data available
Autoignition Temperature:	No data available
Decomposition Temperature:	No data available
Particle Characteristics:	No data available
Flammability (Solid, Gas):	Not applicable

SECTION 10 STABILITY AND REACTIVITY

Reactivity:

No data available.

Chemical Stability:

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions:

No data available.

Conditions to Avoid:

No data available.

Incompatible Materials:

Strong oxidizing agents, Polymerizing initiators, Free radical initiators, Peroxides.

Hazardous Decomposition Products:

Carbon oxides, nitrogen oxides, titanium oxides.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

No data available.

Skin Corrosion/Irritation:

No data available.

Serious Eye Damage/Irritation:

Causes serious eye damage.

Respiratory Sensitization:

No data available.

Skin Sensitization:

May cause an allergic skin reaction.

Germ Cell Mutagenicity:

No data available.

Carcinogenicity:

Color paste (white): Titanium dioxide: IARC Group 2B (Possibly carcinogenic to humans)

Color paste (black): Carbon black: IARC Group 2B (Possibly carcinogenic to humans)

The product is suspected of causing cancer.

Reproductive Toxicity:

No data available.

Specific Target Organ Toxicity -Single Exposure:

No data available.

Specific Target Organ Toxicity -Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard:

No data available.

SECTION12 ECOLOGICAL INFORMATION

Toxicity:

Ethoxylated Trimethylolpropane Triacrylate:

Toxicity to fish static test LC₅₀ - Danio rerio (zebra fish) - 1.95 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates static test EC₅₀ - Daphnia magna (Water flea) - 70.7 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae static test ErC₅₀ - Desmodesmus subspicatus (green algae) - 2.2 mg/l - 72 h (OECD Test Guideline 201)

Persistence and Degradability:

Ethoxylated Trimethylolpropane Triacrylate: Biodegradability aerobic - Exposure time 28 d Result: 60 %
- Readily biodegradable. (OECD Test Guideline 301B)

Bioaccumulative Potential:

No data available.

Mobility in Soil:

No data available.

Other Adverse Effects:

No data available.

SECTION13 DISPOSAL CONSIDERATION

Disposal Methods:

Recycle as far as possible. If unable to recycle, it is recommended to use incineration method for disposal under supervision. This product should not be disposed of by discharge into sewers. Return empty containers to the manufacturer or dispose of them in accordance with national and local regulations. Follow the relevant provisions of national and local regulations before disposal. It is recommended to be disposed of by a qualified chemical waste treatment department.

SECTION14 TRANSPORT INFORMATION

RID/ADR (2023 Edition): The product is not subject to RID/ADR.

IATA DGR (64th Edition): The product is not subject to IATA DGR.

IMO IMDG CODE (2020 Edition): The product is not subject to IMO IMDG Code.

Environmental Hazards: No.

Special Precautions for User: No data available.

Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

the IBC Code:

SECTION 15 REGULATORY INFORMATION

Montreal Protocol: Not listed.

Stockholm Convention: Not listed.

Rotterdam Convention: Not listed.

EINECS/ELINCS: 4-Acryloylmorpholine, Ethoxylated Trimethylolpropane Triacrylate, Color paste (white), Color paste (black) in the product are listed.

TSCA: All ingredients in the product are listed.

IECSC: All ingredients in the product are listed.

SECTION 16 OTHER INFORMATION

Preparation Date: 2023-07-07

Preparation Department: Shanghai Institute of Chemical Industry Testing Co., Ltd.
Tel (Fax): +86-21-52815377/31765555

Revision: 0

Reference Standard: GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), 9th revised edition

Abbreviations and Acronyms:

CAS: Chemical Abstracts Service EC: European Commission ACGIH: American Conference of Governmental Industrial Hygienists PC-TWA: Permissible concentration-time weighted average G2B: Possibly carcinogenic to humans TLV-TWA: Threshold limit value-time weighted average IARC: International Agency for Research on Cancer LC₅₀: Median lethal dose EC₅₀: Effective concentration of substance that causes 50% of the maximum response ErC₅₀: EC₅₀ in terms of reduction of growth rate OECD: Organization for Economic Cooperation and Development ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulations concerning the International Carriage of Dangerous Goods by Rail IMO IMDG CODE: International Maritime Organization International Maritime Dangerous Goods Code IATA DGR: International Air Transport Association Dangerous Goods Regulations MARPOL: International Convention for the Prevention of Pollution from Ships IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances TSCA: Toxic Substances Control Act IECSC: Inventory of Existing Chemical Substances in China

Other Information:

This SDS is compiled based on the information such as ingredients provided by the applicant and our current knowledge. This SDS shall be used only as a guide. The users of this SDS must make independent judgments on the correctness and completeness and then decide its suitability according to the actual situation. The users should take the relevant legal responsibilities for the consequences of use.

END OF REPORT

