

1. Chemical Product and Company Identification

Product Identification: polyurethane photocurable resin LC-1001

Company: Shenzhen Esun Industrial Co.,Ltd.

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2. Hazards Identification in Accordance with GHS:**Classification of the substance or mixture**

Acute toxicity , through the mouth ,Category 4

Eye irritation, Category 1

Skin irritation, Category 1

Specificity Organ Systemic Toxicity, through the mouth

GHS Label elements**Hazard pictograms**

Signal word Warning

Hazard statements

H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye irritation

EU classification

R22	Harmful if swallowed
R36/37/38	May cause eye, respiratory or skin irritation
R43	May cause an allergic skin reaction
R48/22	Harmful to swallow or contact for a long time
S23	Avoid breathing smoke/gas/vapor/mist
S26	Wash eyes thoroughly after contacting
S36/37/39	Wear protective gloves/protective clothing/eye protection/face protection

3. Composition/Information on Ingredients

Polyurethane	30%min
Monomer	30%min
Photoinitiator(s)	5%max
Pigments	5%max

4. First aid measures

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

Skin Contact: Immediately take off the clothes, flow of water washing using the soap or special detergent.

Eye Contact: You should rinse the eyes for 15 minutes if it splashes in. If the eyes are still very afflictive, please seek medical attention.

Inhalation: In case of exposure to a high concentration of vapor or mist, remove person to fresh air. If breathing has stopped, administer artificial respiration and seek medical attention.

Ingestion: Drink enough water to spit if you accident drink it, or else consult a physician.

5. Fire-Fighting Measures

hazardous characteristics: Open fire and high temperature make it burn and release poisonous gas. Contacting light may cause serious **react and release strong heat, liquid turns to solidity.**

Hazardous Combustion Products: Carbon Monoxide and Carbon Dioxide.

Suitable fire extinguisher: Water spray, aqueous foam, dry powder or carbon dioxide

Precautions for Extinguishing: Firefighters should wear full protection clothing and self-contained breathing apparatus. Thoroughly decontaminate firefighting equipment including all firefighting apparel after the incident.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Wear adequate protective equipment for operation personnel, avoid breathing vapor, Ensure adequate ventilation. Pending evacuation to a safe area.

Environmental precautions:

Do not let product enter drains. Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up:

Absorb all contaminated material with inert adsorbing material and scoop them into compatible bottles or drums for proper disposal.

7. Handling and Storage

Precautions for safe handling:

Enclosed operation. Operating personnel must receive specialized training, operate strictly according to operating instructions. Wear self-inhalation filter type toxin respirator, safe protection glasses, virus infiltration overall and rubber gloves. Keep away from fire, heat. Smoking is forbidden in workplace. Use explosion-proof ventilation system and equipment. Welding and cutting are not allowed before fluid clearance. Avoid contacting oxidizing agent. The container and transmitting set need to connect the ground, which will prevent static. Control the flow velocity when filling into the container and set grounding device to prevent accumulation of static electricity. Equipping with the appropriate variety and quantity of fire equipment and emergency equipment leakage. The empty container retains product residues (liquid) will lead in dangers.

Store in cool place. Keep lightproof container tightly closed in a dry and well-ventilated place out of direct sun light. Oxidants, acid and alkali should be stored separately. Seal and maintain the vertical state after opening the container. Equipping with corresponding varieties and numbers of fire equipments.

Recommended storage temperature:10-30°C

8.Exposure controls/personal protection

Chinese MAC(mg/m³): Not established

TLV-TWA: Not established

TLV-STEL(mg/m³): Not established

Appropriate engineering controls: Producing in a closed environment,keep in a cool and well-ventilated place.

Respiratory Protection: Wear air respirator resuscitator

Eye Protection: Wear chemical splash goggles

Body Protection: Wear protective suit

Hands Protection: Wear rubber glove

Other Controls: For operations where contact can occur a safety shower. Always use good personal hygiene and housekeeping practices.

9. Physical & Chemical Properties

Appearance:Liquid

Odor: Characteristic (Light)

Viscosity: 300±50mPa·s (25°C)

Relative Density (g/ml, Water=1) : 1.102 (25°C)

Solubility: Soluble in ethyl alcohol, acetic acid and ethyl ester, not soluble in water.

10. Stability and Reactivity

Avoid loss of thermolysis:

Using and storing it according to the rule will avoid loss of thermolysis.

Taboo thing:

strong oxidizer, strong acid, strong alkali

Possibility of hazardous reactions:

Light will cause strong chemical reaction, release high temperature and irritative gases. Liquid state transfers into solid state.

Hazardous decomposition products:

Carbon Monoxide and Carbon Dioxide

11. Toxicological Information

Acute toxicity:

Product/ingredient name	Result	Species	Dose	Exposure
polyurethane photocurable resin LC-1001	LD50 Dermal	Rabbit	>2000mg/kg	-
	LD50 Oral	Rat	6200mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
polyurethane photocurable resin LC-1001	Skin	Rat	1	4 hours 0.5ml	7days
		Rat	>0.25		

Sensitisation

Product/ingredient name	Route of Exposure	Species	Result
polyurethane photocurable resin LC-1001	Skin	Mouse	Sensitized

Specific target organ toxicity(single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
polyurethane photocurable resin LC-1001	Category 3	Not applicable	Respiratory tract irritation

Information on the likely routes of exposure: not available

Potential acute health effects

Eye contact: Cause serious eye irritation.

Inhalation: No know significant effects or critical hazards.

Safety Data Sheet

Skin contact: May be harmful in contact with skin. Causes mild skin irritation. May cause an allergic skin reaction.

Ingestion Irritating to mouth,throat and stomach.

Symptoms related to the physical. Chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

Pain or irritation

Watering

Redness

Inhallation: Adverse symptoms may include the following:

Respiratory tract irritation

Coughing

Skin contact: Adverse symptoms may include the following:

Pain or irritation

Redness

Ingestion: No specific date

Potential chronic health effects

Not available.

General: Once sensitized,a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: No know significant effects or critical hazards

Mutagenicity: No know significant effects or critical hazards

Teratogenicity: No know significant effects or critical hazards

Developmental effects: No know significant effects or critical hazards

Fertility effects: No know significant effects or critical hazards

Numerical mewsures of toxicity

Acute toxicity estimate

Route	ATE value
Oral	-mg/kg
Dermal	-mg/kg

12. Ecological Information

Toxicity

Product/ingredient name	Result	Species	Exposure
polyurethane photocurable resin LC-1001	-	-	-

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inculum
polyurethane photocurable resin LC-1001	-	-	-	-

Bioaccumulative potential

Product/ingredient name	Logpow	BCF	Potential
-	-	-	-

Mobility in soil

Soil/water partition coefficient(KOC):Notavailable.

Other adverse effects:No know significant effects or critical hazards.

13. Disposal Considerations

Dispose of in accordance with governmental regulations (community, national or regional). Contact a licensed professional waste disposal service to dispose of this mixture.

Contaminated Packaging: :

Dispose of in accordance with governmental regulations

14. Transport Information

	UN	IMDG	IATA
UN No.	Not regulated	Not regulated	Not regulated
UN proper shipping name	-	-	-
Hazard class(es)	-	-	-

Packing group	–	–	–
Environmental hazards	No	No	No
Marine Pollutant	No	No	No

Land transport (ADG): Not regulated for transport of dangerous goods.

Air transport (ICAO–IATA/DGR): Not regulated for transport of dangerous goods.

Sea transport (IMDG–Code/GGVSee): Not regulated for transport of dangerous goods.

Transport in bulk according to Annex II of MARPOL and the IBC code.

Transport within user' s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. Regulatory Information

Regulations on the Safe Management of Hazardous Chemicals in China

(implemented by the State Council on Feb 17,1987),Dangerous chemicals safety management

Implementation of the Regulations (the Labor Fa [1992] No. 677),Labor Department's [1996] No. 423

the use of chemicals safety in the workplace of the provisions. Some corresponding stipulation on the safety use, producing, storage,transportation and handling of hazardous chemicals.

16. Other Information

Only for the supplement for other information. Proper use and protect the healthy and safety for employees. The information is not provided for guarantee. You will be at your own risk if not in correct use.

ADR: Accord européen sur le transport des marchandises dangereuses par Route

VbF: Verordnung über brennbare Flüssigkeiten, Österreich

vPvB: very Persistent and very Bioaccumulative

ACGIH: American Conference of Governmental Industrial Hygienists (USA)

NTP: National Toxicology Program (USA)

IARC: International Agency for Research on Cancer

EPA: Environmental Protection Agency (USA)



Safety Data Sheet

***End ***