

Material Safety Data Sheet (MSDS)

Part 1: Chemicals and Corporate Identification

Chemical Name (in Chinese): E57-89H High Temperature Resistant Epoxy Insulating Varnish

Chemical formula: mixture

Company Name: Zhuhai Changxian New Material Technology Co., Ltd.

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Part 2: Hazard Overview

Emergency Overview: Liquid and vapor, may cause drowsiness or dizziness; inhalation is harmful.

GHS Hazard Classes: Class C liquids, Category 2; Skin irritation/corrosion: Category 2; Reproductive toxicity: Category 2; Specific target organ toxicity: Single exposure, Category 3 (anesthetic effect); Specific target organ toxicity: Repeated exposure, Category 2; Inhalation hazard: Category 1; Skin irritation/corrosion: Category 2; Hazards to the aquatic environment - Acute hazard, Category 2; Hazards to the aquatic environment - Long-term hazard, Category 3

Label elements are in accordance with GB 15258-2009 (Regulations for the Preparation of Safety Labels for Chemicals).

Pictograms:



Warning word: Danger

Hazard statement: Liquid and vapor; harmful if swallowed; harmful if inhaled; causes skin irritation; harmful to aquatic life.

Prevention instructions:

Preventive measures Keep away from sparks, open flames, and heat sources. Keep containers tightly sealed. Use explosion-proof electrical, ventilation, and lighting equipment. Use machinery and tools that do not generate electrical sparks. Take anti-static measures. Wear protective gloves, safety glasses, and a face shield. Avoid contact with eyes and skin; wash thoroughly after handling.

Material Safety Data Sheet (MSDS)

Avoid inhaling vapors or fumes. Do not release into the environment.

Incident Response: In case of fire, use foam, carbon dioxide, dry powder, or sand to extinguish the fire. If inhaled, move to a well-ventilated area to rest.

Spray water to keep containers in the fire area cool until the fire is extinguished. If skin (or hair) comes into contact: Immediately remove contaminated clothing, wash thoroughly with soap and water, and take a shower.

Secure storage Store in a cool, dark, and well-ventilated warehouse. Keep containers tightly sealed. Maintain a low temperature.

Before disposal, relevant national and local regulations should be consulted, or incineration should be used.

Physical and chemical hazards:

It is not easily flammable or explosive, but it can burn when exposed to an open flame for a prolonged period of time.

Health hazards: It has an irritating effect on the skin and mucous membranes, and high concentrations have an anesthetic effect on the central nervous system.

Acute poisoning: Inhalation of high concentrations of this product in a short period of time can cause obvious irritation symptoms to the eyes and upper respiratory tract, as well as headache, dizziness, nausea, etc.

Chronic effects: Long-term exposure can cause neurasthenia syndrome, and prolonged skin contact can cause dryness, cracking, and dermatitis.

Part 3: Ingredient/Composition Information

Pure Mixtures

Component	concentration	CAS.NO
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Modified heat-resistant epoxy resin	50-60%	25086-38-6
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Modified polyester resin	15-25%	25135-73-3
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Stabilizer	0.5-1.5%	80-43-3
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Reactive diluent	15-25%	(Trade secret)
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Additives	0.5-1.5%	(Trade secret)
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Part 4: First Aid Measures

Skin contact: Immediately remove contaminated clothing and rinse with plenty of running water for at least 15 minutes. Seek medical attention.

Eye contact: Immediately lift eyelids and rinse thoroughly with plenty of running water or saline solution for at least 15 minutes. Seek medical attention.

Inhalation: Immediately move the person to fresh air. Keep the airway open. If breathing is difficult, administer oxygen. If breathing stops, immediately begin artificial respiration. Seek medical attention.

If ingested: Drink plenty of warm water and induce vomiting. Seek medical attention.

Important note: Rescue personnel should wear appropriate protective equipment

Material Safety Data Sheet (MSDS)

to avoid injury.

Part 5 : Firefighting Measures

Hazardous characteristics: Non-flammable, but there is a risk of combustion when exposed to open flames, high temperatures, or oxidizers for extended periods.

Firefighting methods: Use dry powder fire extinguishers, carbon dioxide fire extinguishers, or foam fire extinguishers to extinguish the fire.

Firefighting Precautions: Firefighters must wear gas masks and full protective suits and fight the fire from upwind. Avoid water flow impacting the leaked material and prevent it from entering sewers, surface water, and groundwater. Clean up the scene after extinguishing the fire.

Part 6 : Leakage Emergency Response

Emergency Response: Immediately evacuate personnel from the contaminated area to a safe zone and isolate the area, strictly restricting access. Cut off fire extinguishing.

Source. Emergency responders are advised to wear self-contained positive pressure breathing apparatus and anti-static work clothes. Do not directly contact the leaked material.

Leakage Handling:

Small spills: Absorb or adsorb with sand or other non-combustible materials. Alternatively, flush with plenty of water, and dilute the wash water before placing the spilled product in the container.

Wastewater system.

Large spills: Construct dikes or dig pits to contain the spill. Cover with foam to reduce vapor hazards. Transfer using explosion-proof pumps to tank trucks or specialized collectors for recovery or disposal at a waste treatment facility.

Environmental protection: Prevent leaked materials from entering water bodies, sewers, basements, or confined spaces.

Part 7 : Handling and Storage

Operational Precautions: Operate in a closed system with enhanced ventilation. Operators must be specially trained and strictly adhere to operating procedures.

It is recommended that operators wear self-priming filter respirators (half-face masks) and anti-static work clothes. Keep away from open flames and heat sources; smoking is strictly prohibited in the workplace. Use ventilation systems and equipment. Avoid contact with oxidizers and alkalis. Provide appropriate types and quantities of fire-fighting equipment and spill response equipment.

Smoking is strictly prohibited at the work site. Avoid inhaling high

Material Safety Data Sheet (MSDS)

concentrations of pollutants.

Storage Precautions: Store in a dark, cool, and well-ventilated warehouse. Keep away from fire and heat sources. Keep containers sealed. Shelf life is generally six months from the date of production at temperatures below 25° C. Warehouse lighting and ventilation systems should be explosion-proof, with switches located outside the warehouse. The use of machinery and tools that may generate sparks is prohibited. The storage area should be equipped with spill response equipment.

Part 8 : Exposure Controls/Personal Protection

Exposure limits:

Biological exposure limits:

Exposure control/Personal protection

Monitoring methods: Methods for determining toxic substances in the air

Engineering controls: The production process is enclosed, and ventilation is enhanced.

Respiratory protection: When the concentration in the air exceeds the standard, wear a self-priming filter respirator (half-face mask). In emergency rescue or evacuation, it is recommended to wear an air-supplied respirator.

Eye protection: Wear chemical safety goggles.

Body protection: Wear anti-static work clothes.

Hand protection: Wear rubber gloves.

Other protective measures: Smoking, eating, and drinking are prohibited at the work site. Shower and change clothes after work. Maintain good hygiene habits.

Part 9: Physical and Chemical Properties

Appearance and properties: Pale yellow transparent liquid, free of mechanical impurities.

Relative density (g/cm³): 1.16±0.03

Viscosity (25±1°C, s): 50-200"

Flash point (° C): None

Main applications: Vacuum and atmospheric pressure impregnation insulation treatment for B, F, and H class dry-type power transformers, reactors, as well as hoisting, frequency conversion, and refrigerant-resistant motors and electrical appliances.

Part 10: Stability and Reactivity

Stability: Stable under normal conditions

Incompatible materials: strong oxidizing agents, strong acids, strong bases

Material Safety Data Sheet (MSDS)

Conditions to avoid: High temperature, open flame, oxidizers

Harm of polymerization: Non-polymerization

Decomposition products: Harmful fumes may be produced during combustion, such as carbon monoxide and carbon dioxide.

Part 11: Toxicological Information

Acute toxicity: Dizziness and headache may occur.

Irritation: Irritating to skin, eyes and respiratory tract.

Sensitization: May cause allergic skin reactions.

Subacute and chronic toxicity: No data available.

Mutagenicity: No data available.

Teratogenicity: No data available.

Carcinogenicity: No data available.

Part 12: Ecological Information

LC50 34.27 mg/L (96H) Blackhead Carp

Durability and Degradability: Biodegradability: Easily and rapidly biodegraded

Non-biodegradability: Photo-oxidation half-life in water (H): 321-1284

Photo-oxidation half-life (H) in air: 10-104

Potential bioaccumulation: Based on the Kow value, this substance may have some bioaccumulation potential.

Soil mobility: Based on Kow values, this substance may have some mobility.

Part 13: Waste Disposal

Waste chemicals: Dispose of by incineration

Contaminated packaging: Return the containers to the manufacturer or dispose of them in accordance with relevant national and local regulations.

Waste Disposal Considerations: Waste generation should be avoided or minimized as much as possible. Significant quantities of residual product waste should be disposed of by a licensed waste management contractor, including residues and non-renewable products. The disposal of products, solutions, and their byproducts should comply with environmental protection, waste management regulations, and applicable local regulations.

Waste disposal methods: Before disposal, relevant national and local regulations should be consulted, and controlled incineration should be used.

Part 14: Transportation Information

Dangerous goods number: --

UN Number: --

Material Safety Data Sheet (MSDS)

Packaging category: --

Packaging markings: --

Packaging method: 22KG or 220KG/drum

Transportation Precautions: Transport vehicles should be equipped with appropriate types and quantities of fire-fighting equipment and leakage emergency handling equipment. Transportation is best done in the early morning or late evening during summer. Tank trucks used for transportation should have grounding chains, and perforated baffles can be installed inside the tank to reduce static electricity generated by vibration. Mixing or transporting with oxidizers, acids, alkali metals, amines, or food chemicals is strictly prohibited. Protect from exposure to sunlight, rain, and high temperatures during transportation. When stopping en route, keep away from sources of ignition, heat sources, and high-temperature areas. Vehicles transporting this item must have flame arresters on their exhaust pipes, and the use of machinery and tools that may generate sparks during loading and unloading is prohibited. When transporting by road, follow the prescribed routes and do not stop in residential areas or densely populated areas. When transporting by rail, shunting is prohibited.

Part 15: Regulatory Information

The following laws, regulations, rules and standards stipulate the corresponding provisions for the management of this chemical.

Occupational Disease Prevention and Control Law of the People's Republic of China : Classification and Catalogue of Occupational Diseases: Not listed

Hazardous Chemicals Safety Management Regulations : Not listed. List of Easily Explosive Hazardous Chemicals: Not listed. List of Key Monitored Hazardous Chemicals: Not listed. GB18218-2018 Identification of Major Hazard

Installations of Hazardous Chemicals (Table 1): Not listed.

Labor Protection Regulations for Workplaces Using Toxic Substances : List of Highly Toxic Substances: Not Listed

Regulations on the Administration of Precursor Chemicals: Classification and Catalogue of Precursor Chemicals: Not listed

International Conventions : Stockholm Convention: Not listed. Rotterdam Convention: Not listed. Montreal Protocol: Not listed.

Part 16: Other Information

Drafting and Revision Information: 2025.05.18 Technical Department

Training Recommendation: Provide relevant training to users.

Disclaimer: The above information is not specific to this product and is for reference only. No warranty is provided. It is believed that the above-mentioned

Material Safety Data Sheet (MSDS)

industrial safety and hygiene procedures are generally feasible. However, users should assess for themselves whether the above recommendations are appropriate for their individual circumstances.