

Material Safety Data Sheet (MSDS)

Section 1: Chemical Product and Company Identification

Chemical Name: E57-89H Environmentally Friendly Solventless Insulating Varnish
Synonyms / Trade Name: Insulating Resin
Chemical Formula: Mixture
Company: Zhuhai Changxian New Material Technology Co., Ltd.
Address: Langwan Road, Fine Chemical Industry Zone, Gaolan Port Economic Zone, Zhuhai, P.R. China
Postal Code: 519050
E-mail: info@changxianmat.com
Fax: +86-755-26689087
Tel: +86-755-26852596 +86-755-26852597 +86-755-26864069
Company Emergency Phone: +86-18718861172
National Emergency Phone: +86-532-83889090

Section 2: Hazards Identification

Emergency Overview: May cause drowsiness or dizziness. Harmful if inhaled.
GHS Classification: Skin Corrosion/Irritation, Category 2; Reproductive Toxicity, Category 2;
Specific Target Organ Toxicity – Single Exposure, Category 3 (narcotic effects); Specific
Target Organ Toxicity – Repeated Exposure, Category 2; Aspiration Hazard, Category 1;
Hazardous to the Aquatic Environment – Acute Hazard, Category 2; Hazardous to the
Aquatic Environment – Long-term Hazard, Category 3
Label elements in accordance with GB 15258-2009 (General Rules for Preparation of
Chemical Safety Labels)
Pictograms:



Signal Word: Danger

Hazard Statement(s): Harmful if swallowed. Harmful if inhaled. Causes skin irritation.
Harmful to aquatic life.

Precautionary Statements:

Prevention Keep container tightly closed. Use only in well-ventilated areas. Wear protective gloves, safety goggles and face protection. Avoid contact with eyes and skin; wash thoroughly after handling. Avoid breathing vapour and mist. Do not discharge into the environment.

Response: In case of fire, use foam, carbon dioxide, dry powder or sand to extinguish. If inhaled, move to fresh air and rest. Keep containers cool by spraying water until the fire is completely extinguished. IF ON SKIN (or hair): immediately remove contaminated clothing and rinse thoroughly with soapy water and clean water; take a shower.

Storage Store in a shaded, cool and ventilated warehouse. Keep container tightly closed. Keep cool.

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Disposal Consult national and local regulations before disposal, or treat by incineration.

Physical and Chemical Hazards:

Combustible. May burn when exposed to high heat or open flame.

Health Hazards: Irritating to the skin and mucous membranes; high concentrations have a narcotic effect on the central nervous system.

Acute Poisoning: Short-term inhalation of high concentrations of this product may cause obvious irritation of the eyes and upper respiratory tract, as well as headache, dizziness, nausea and other symptoms.

Chronic Effects: Long-term contact may cause neurasthenic syndrome; prolonged skin contact may cause dryness, chapping and dermatitis.

Section 3: Composition / Information on Ingredients

Pure Substance	Mixture ■	
Ingredient	Concentration	CAS No.
Modified heat-resistant epoxy resin	5-15%	25086-38-6
Modified polyester resin	50-60%	25135-73-3
Curing agent	0.5-1.5%	25155-25-3
Reactive diluent	30-40%	Trade secret
Auxiliary agents	0.5-1.5%	Trade secret

Section 4: First Aid Measures

Inhalation: Remove the person to fresh air immediately. Keep the airway clear. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration immediately. Seek medical attention.

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

Eye Contact: Immediately hold the eyelids apart and flush thoroughly with plenty of running water or saline for at least 15 minutes. Seek medical attention.

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

Important Note: Rescue personnel shall wear appropriate protective equipment to avoid injury to themselves.

Section 5: Fire Fighting Measures

Extinguishing Media: Foam, carbon dioxide, dry powder or sand may be used.

Special Hazards: Combustible; under high heat its vapour may form a combustible mixture with air. Can react with oxidizing agents.

Firefighting Precautions: Firefighters must wear gas masks and full fire-fighting suits, and extinguish from the upwind direction. Move containers from the fire area to an open area if possible. Keep containers cool by spraying water until the fire is completely extinguished. If a container suddenly emits an abnormal sound or shows abnormal phenomena, evacuate immediately.

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Hazardous Combustion Products: CO CO₂

Section 6: Accidental Release Measures

Personal Precautions: Evacuate personnel from the leakage-contaminated area to the upwind side, isolate the area and strictly restrict access. Cut off ignition sources. Emergency responders are advised to wear self-contained positive-pressure respirators and anti-static work clothes. Cut off the leakage source if possible.

Environmental Precautions: Prevent the leaked material from entering water bodies, sewers, basements or confined spaces.

Containment and Cleanup of Leaked Chemical:

Small Spill Absorb with sand or other incombustible materials.

Large Spill Build dikes or dig pits for containment; cover with foam to reduce the vapour hazard.

Section 7: Handling and Storage

Handling Precautions: Operate in a closed system with enhanced ventilation. Operators must be specially trained and strictly follow operating procedures. Wear self-priming filter respirators (half mask) and anti-static work clothes. No smoking in the workplace. Prevent vapour from leaking into the workplace air. Avoid contact with oxidizing agents and alkalis. Keep appropriate types and quantities of fire-fighting equipment and spill emergency equipment on hand. Avoid inhaling high concentrations.

Storage Precautions: Store in a shaded, cool and ventilated warehouse. Keep away from ignition sources and heat. Keep containers tightly closed; the shelf life is generally six months from the date of production when stored below 25°C. The storage area should be equipped with spill emergency equipment.

Section 8: Exposure Controls / Personal Protection

Exposure Limit: 100 mg/m³ (skin)

Biological Exposure Limit: 1.5 g/g (creatinine)

Monitoring Method: Methods for determination of toxic substances in air

Engineering Controls: Closed production process with enhanced ventilation

Respiratory Protection: Wear a filter-type respirator (half mask) when in contact with high concentrations

Eye Protection: Wear chemical safety goggles

Body Protection: Wear work clothes impermeable to toxic substances

Hand Protection: Wear oil-resistant rubber gloves

Other Protection: No smoking, eating or drinking at the work site. Shower and change clothes after work.

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Section 9: Physical and Chemical Properties

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

Relative Density (g/cm³): 1.075±0.05

Viscosity (25±1°C, s): 40-80 Flash Point (°C): >96°C

Main Uses: For vacuum and atmospheric-pressure impregnation insulation treatment of Class F and H dry-type power transformers, reactors, and lifting, variable-frequency and refrigerant-resistant motors and electrical appliances.

Section 10: Stability and Reactivity

Stability: Stable

Incompatible Materials: Strong oxidizing agents, strong acids.

Conditions to Avoid: High heat

Polymerization Hazard: Does not occur

Decomposition Products: Carbon monoxide, carbon dioxide

Section 11: Toxicological Information

Acute Toxicity: May cause dizziness and headache

Irritation: Irritating to skin, eyes and respiratory tract

Sensitization: May cause skin allergic reactions

Subacute and Chronic Toxicity: No data available

Mutagenicity: No data available

Teratogenicity: No data available

Section 12: Ecological Information

LC50 34.27 mg/l (96H), fathead minnow

Persistence and Degradability: Biodegradability: readily biodegradable

Abiotic Degradability: Photo-oxidation half-life in water (H): 321-1284

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

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

Mobility in Soil: Based on the Kow value, this substance may have some mobility in soil

Section 13: Disposal Considerations

Waste Chemical: Dispose of by incineration

Contaminated Packaging: Return containers to the manufacturer or dispose of in accordance with national and local regulations

Disposal Precautions: Avoid or minimize waste generation wherever possible. Significant

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quantities of residual product waste should be handled by a licensed waste disposal contractor. Disposal of the product, solutions and their by-products shall comply with environmental protection, waste disposal regulations and relevant local regulations.

Disposal Method: Consult national and local regulations before disposal; dispose of by controlled incineration

Section 14: Transport Information

Dangerous Goods Number: --

UN Number: --

Packing Group: --

Packaging Method: 20KG pail or 200KG drum

Transport Precautions: Transport vehicles shall be equipped with appropriate types and quantities of fire-fighting equipment and spill emergency equipment. In summer, transport preferably in the early morning or evening. Do not load or transport together with oxidizing agents, acids, alkali metals, amines or food chemicals. Protect from sunlight, rain and high temperatures during transport. Keep away from ignition sources, heat and high-temperature areas during stops. For road transport, follow the prescribed routes and do not stop in residential or densely populated areas.

Section 15: Regulatory Information

The following laws, regulations, rules and standards provide for the management of this chemical.

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

Regulations on the Safety Management of Hazardous Chemicals Catalogue of Hazardous Chemicals: Not listed. Catalogue of Explosive-Prone Hazardous Chemicals: Not listed. Catalogue of Hazardous Chemicals Subject to Key Supervision: Not listed.

GB18218-2018 "Identification of Major Hazard Installations for Hazardous Chemicals" (Table 1): Not listed.

Regulations on Labour Protection in Workplaces Using Toxic Substances Catalogue of Highly Toxic Substances: Not listed

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

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

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Section 16: Other Information

Preparation and Revision Information: 2026.01.01 First edition; 2026.09.16 Revision 1
(based on flash point >96°C, the flammable liquid GHS classification and related
explosion-proof precautionary requirements have been removed; transport as non-dangerous
goods) Technical Department

Training Recommendations: Please provide relevant training to users

Disclaimer: The above information is not exclusive to the specifications of this product and is
for reference only; no warranty liability is assumed. It is believed that the industrial safety
and health handling procedures recommended above are feasible under normal circumstances.
However, users shall still consider whether the above recommendations are appropriate for
their individual conditions of use.