

Initial Preparation Date: 23 January, 2026

Revision Date: 23 January, 2026



PasteCool® Coolguard Epoxy Radiation-Reflective Epoxy Primer (2K)

1. Chemical and Company Identification

Product Name: PasteCool® Coolguard Epoxy Radiation-Reflective Epoxy Primer (2K)

Intended Use: Can be widely applied in energy-efficient buildings, communication data centres, grain storage facilities, petrochemical storage tanks, power equipment, cold chain logistics, and new energy applications where cooling and energy saving are required, and is especially suitable for metal surfaces.

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2. Hazards Identification

Hazard Category: Not classified as a hazardous chemical.

Routes of Exposure: Inhalation, Ingestion or skin absorption.

Health Hazards: Harmless through skin contact, but may cause contact allergies.

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Environmental Hazards: This product must not be poured into sewers or drains, nor disposed of in areas that may affect soil or groundwater.

Fire and Explosion Hazards: None.

Special Hazards: None.

3. Composition/Information on Ingredients

Product State: Liquid mixture

Chemical Name: PasteCool® Coolguard Epoxy Radiation-Reflective Epoxy Primer (2K)

Component A

Main Components	Content (%)
Water	15-30
Waterborne epoxy emulsion	25-40
Functional Titanium Dioxide	15-30
Anti-rust pigment	5-10
Dipropylene glycol butyl ether	1-3
Propylene glycol methyl ether	1-2

Component B

Main Components	Content (%)
Water	10-20
Modified polyamine adduct	70-85
Propylene glycol methyl ether	2-5

A:B = 6.5:1

4. First Aid Measures

Skin Contact: Remove contaminated clothing, shoes, and leather items (e.g., watches, belts) as soon as possible. Wipe off or absorb excess chemical immediately. Wash thoroughly with water and non-abrasive soap for 20

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minutes or until the chemical is removed. Seek medical attention immediately. Contaminated clothing, shoes, and leather items must be decontaminated before reuse or disposal.

Eye Contact: Immediately open the upper and lower eyelids and rinse with plenty of water or saline for 15 minutes. Seek medical attention as soon as possible.

Ingestion: Drink plenty of warm water and seek medical attention immediately.

Inhalation: Remove the source of contamination or move the patient to fresh air. Seek medical attention immediately if discomfort occurs.

Most Important Symptoms and Hazards: Contact with the skin may cause harm and skin irritation.

Protection for First Aid Responders: Perform first aid in a safe area while wearing Level C protective equipment.

Notes for Physicians: N/A

5. Firefighting Measures

Suitable Extinguishing Media: Foam, carbon dioxide (CO₂), dry powder, or sand can be used to extinguish fires.

Special Protective Equipment for Firefighters: Firefighters must wear self-contained breathing apparatus (SCBA), protective clothing, and protective gloves.

6. Accidental Release Measures

Personal Precautions: Restrict access to the contaminated area until it has been completely cleaned. Ensure that cleanup is carried out by trained personnel. Wear appropriate personal protective equipment (PPE).

Environmental Precautions: Ventilate the area. Eliminate or remove all sources of ignition. Notify relevant governmental authorities responsible for occupational safety, health, and environmental protection.

Emergency Handling Methods: Cut off power, fire sources, and remove heat sources; prevent collisions, friction, and static electricity; and, if possible, stop the source of the leak. Prevent the substance from entering sewers, drainage

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ditches, or confined spaces. Collect the spilled material into sealed containers as much as possible and absorb residual liquid with sawdust, sand, or similar materials. Use inert dispersing agents to form an emulsion and clean the site.

7. Handling and Storage

Handling Precautions: Operate in a closed system with adequate ventilation. Personnel should receive professional training and wear chemical safety goggles. Keep away from open flames and heat sources; smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. Handle packaging carefully during loading and unloading, and equip the workplace with an appropriate quantity and type of firefighting equipment and spill emergency response tools.

Storage Precautions: Store in a cool, ventilated warehouse (0 – 50° C), away from fire and heat sources, and keep containers tightly sealed. Store separately from oxidizers and food-grade chemicals; do not store together. Use explosion-proof lighting and ventilation facilities. Do not use equipment or tools that may produce sparks. The storage area should be equipped with spill emergency response equipment and materials. The company is not responsible for products beyond their shelf life.

8. Exposure Controls/Personal Protection

Engineering Controls: Use individually without generating sparks, with grounded ventilation systems. Exhaust outlets should discharge directly outdoors, with measures taken to protect the environment. For large-scale use of this substance, local exhaust systems and process enclosures may be required. Supply sufficient fresh air to compensate for air removed by the exhaust system.

Respiratory Protection: Wear a protective mask.

Eye Protection: Wear safety goggles.

Body Protection: Wear suitable impermeable work clothing.

Hand Protection: Wear rubber gloves.

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Other Precautions: Smoking, eating, and drinking are prohibited in the work area. Do not consume alcoholic beverages before work. Shower and change clothes after work. Undergo pre-employment and periodic medical examinations.

9. Physical and Chemical Properties

Appearance: Liquid

Color: White

pH: 7-9

Viscosity (25°C): ~80 KU

Melting/Freezing Point (°C): No fixed freezing point; emulsion particles may freeze at low temperatures. After thawing, stir thoroughly and check whether the paint performance is normal.

Boiling Point (°C): As this product is a mixture, there is no specific single boiling point. Water, as the main solvent, begins to boil and evaporate around 100°C.

Flash Point (°C): None (water-based system, non-flammable).

Ignition Temperature: No exact data; may burn under high-temperature flames.

Explosive Limits: No explosion hazard (water-based system, low volatility, and non-flammable).

Solubility: Water-soluble, can be mixed with water in any ratio. Pigments, fillers, and other components are uniformly dispersed in water but are not dissolved.

Relative Density (g/cm³): 1.0-1.1 (mixed A and B components)

10. Stability and Reactivity

Stability: Stable under normal conditions

Incompatible Materials: Product is water-based and should not be mixed with solvent-based products.

Conditions to Avoid: Do not freeze; storage temperature should be above 5°C.

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Polymerization Hazard: Will not occur.

Decomposition Products: Stable under recommended storage and handling conditions

11. Toxicological Information

Acute Toxicity: No data available.

Irritation and Corrosivity: Irritating to eyes; skin contact may cause allergic reactions.

Sensitization: May cause allergic reactions.

Skin Contact: Repeated or prolonged exposure may cause contact dermatitis.

Other Reactions: Splashes in the eyes may cause mild discomfort or pain.

12. Ecological Information

Carcinogenicity: No evidence of carcinogenicity under normal use conditions.

Biodegradability: Some components, such as water and polymer emulsions, are biodegradable, but pigments and fillers are not easily biodegradable

13. Disposal Considerations

Disposal Methods: Expired or waste products should be handled according to local environmental regulations. Generally, they should be disposed of by qualified hazardous waste treatment facilities using methods like incineration or landfill. Do not dispose of in the environment.

Contaminated Packaging: Empty containers should be cleaned and processed. If heavily contaminated, treat as hazardous waste.

14. Transport Information

UN Number: Not classified as hazardous; no UN number.

Transport Name: None.

Hazard Class: Non-hazardous.

Packaging: Sealed plastic drums with outer cardboard boxes to prevent

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leakage during transport.

Transport Precautions: Avoid exposure to sunlight, rain, and high temperatures. Separate from oxidizing agents, acids, and bases.

15. Regulatory Information

Complies with Chinese regulations such as the Environmental Protection Law, Work Safety Law, and Hazardous Chemicals Safety Management Regulations.

16. Other Information

Source of Information and References: This SDS (Safety Data Sheet) was prepared by the Product Regulatory Services Department and Hazard Communication Department based on the company's internal standards. Entropy Lab Pte Ltd, hopes that every user or recipient of this (material) safety data sheet will carefully study it and, when necessary or appropriate, consult relevant experts to fully understand the data contained in this (material) safety data sheet and any hazards related to this product. All information provided here is true and reliable, and as of the effective date mentioned above, this information is accurate. However, we do not make any explicit or implied guarantees. Laws and regulations may change and may vary in different locations. It is the responsibility of the buyer/user to ensure that their actions comply with all federal, state, provincial, or local laws. The information provided here applies only to the product in its shipped state. Since the manufacturer cannot control the conditions under which the product is used, it is the responsibility of the buyer/user to ensure the safe use of the product. Due to the expansion of information sources, such as producer-specific (material) safety data sheets, we cannot and will not be responsible for (material) safety data sheets obtained from sources other than our company. If you have obtained a (material) safety data sheet from another source or are unsure whether it is the current version, please contact us to request the latest version.