

MATERIAL SAFETY DATA SHEET

1. Identification of the Substances/Preparation and of the Company/Undertaking

Product Details

Trade Name: Epoxy metal

Product Code: 3506912000

End Uses: Metal repair

Manufacturer/Supplier: PAC KING GROUP LIMITED

Tel: +86 10 51240893

E - Mail: karen@packingmmc.com

Information in Case of Emergency

Tel: +86 10 52475898

Contact Person: Olivia

2. Hazards Identification

Xi: Irritant

According to EC Regulation No. 453/2010.

I. Classification according to 67/548/EEC or 1999/45/EC



R36/38 Irritating to eyes and skin.

R43 May cause sensitization by skin contact.

II. Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin irritation (Category 2)

Skin sensitisation (Category 1)

Eye irritation (Category 2)

Hazardous to the aquatic environment, long-term hazard (Category 3)

Label Elements

Labeling according Regulation (EC) No 1272/2008 [CLP]



Pictogram

Signal Word Warning

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Hazard Statement(s)

- H319 Causes serious eye irritation.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H412 Harmful to aquatic life with long lasting effects.

Prevention Precautionary Statements:

- P264 Wash thoroughly after handling.
 P280 Wear protective glove s/protective clothing/eye protection/face protection.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.

Response Precautionary Statements:

- P302+352: IF ON SKIN: Wash with soap and water.
 P333+313: If skin irritation or a rash occurs: Get medical advice/attention.
 P362: Take off contaminated clothing and wash before reuse.
 P363: Wash contaminated clothing before reuse.
 P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
 P337+313: If eye irritation persists get medical advice/attention.

Storage precautionary statements: Void.

Disposal precautionary statements:

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

3. Composition/Information on Ingredients**Chemical Characterization**

Description: Mixture, consisting of the following components:

Substance	CAS#	EC#	Amount%
Silicon dioxide	7631-86-9	231-545-4	40
Calcium carbonate	1317-65-3	/	29
Epoxy resin	25068-38-6	/	15
Pentaerythritol propoxylate	9051-49-4	111-40-0	20
3-Mercapto-1,2-propanediol	96-27-5	96-33-3	6
Tri(dimethylamino methyl)phenol	90-72-2	89-32-7	5

4. First-Aid Measures

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do -continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Wash with soap and water while removing contaminated clothing and shoes. Wash clothing

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before reuse. If skin irritation or a rash occurs: Get medical advice/attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Get medical aid.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician immediately.

5. Fire-Fighting Measures

Flammability of the Product: Combustible if involved in fire.

Special Remarks on Fire Hazards: This product may decompose upon fire to produce irritation fume. Silicon dioxide, calcium oxides, carbon oxides, nitrogen oxides (NO_x), Sulfur dioxide(SO₂), hydrogen chloride and hydrocarbons may be released at elevated temperatures or in a fire.

Suitable Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam. Use water spray to cool down the container during fire. Move containers to empty department if possible. If the container color is changed or some sound is produced from container, evacuate immediately. Use water to dilute released material into a incombustible mixture.

Special Protective Equipment for Fire-Fighters: Stand upwind. Wear a self-contained breathing apparatus in pressure- demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Remark: Stop the fire spreading. Call the fire brigade immediately. Evacuate non-essential personnel.

6. Accidental Release Measures

Personal Precautions: Keep unprotected people away and stand upwind of spill/leak. Provide enough ventilation. Wear protective equipment as indicated in Section 8. Avoid contact with the material. Avoid breathing dust/fume/ gas/ mist/ vapours/ spray.

Precautions to Protect the Environment: Keep away of drains. Do not release into the environment.

Methods for Cleaning Up: Absorb with inert materials(such as sand, incombustible material) and keep it in appropriate recipient for later disposal according to national and local laws and regulations.

7. Handling and Storage

Precautions for safe Handling: Handle in well-ventilated place. Use appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash thoroughly after handing and before eating, drinking and smoking. Void breathing dust/fume/ gas/ mist/ vapours/ spray. Do not get in eyes or on skin or clothing. Do not ingest. Keep container tightly closed when not in use.

Conditions for safe Storage: Keep container tightly closed in a cool, dry, well-ventilated place. Keep away from fire and heat.

8. Exposure Controls/Personal Protection

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Exposure Limits:

Substance	ACGIH TLV	OSHA PEL
Silicon dioxide (CAS#7631-86-9)	10 mg/m ³ TWA	6mg/m ³ TWA

Engineering Controls: Use local exhaust ventilation.

Personal Protective Equipment:

Respiration Protection: Wear appropriate Self-absorption filter respirators when ventilation is inadequate or the concentration exceeds the limit. Oxygen respirator may be required for emergency evacuation.

Eye Protection: Wear safety goggles if in-eye risk exist.

Hand Protection: Chemical substances resistant gloves.

Skin and Body Protection: Standard work clothes.

Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and Chemical Properties**General Information**

Form:	Opaque paste
Color:	Gray glue
Odor:	Slightly irritating
pH:	N/A
Melting Point/Range:	N/A
Boiling Point/Range:	N/A
Percent Volatility:	N/A
Flash Point:	N/A
Density:	N/A
Vapor Pressure:	N/A
Vapor Density:	N/A
Evaporation Rate & Reference:	N/A
Solubility in Water:	insoluble
Explosion Limits in Air - Upper :	N/A
Explosion Limits in Air - Lower:	N/A

10. Stability and Reactivity

Stability: Stable under normal ambient storage conditions.

Conditions to avoid: Avoid heat, sparks, high temperatures and direct sunlight.

Incompatible materials: strong oxides, strong acid.

Hazardous decomposition products: May form toxic fumes upon combustion. Silicon dioxide, calcium oxides,

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carbon oxides, nitrogen oxides (NO_x), Sulfur dioxide(SO₂), hydrogen chloride and hydrocarbons.

Hazardous Polymerization: Polymerization will occur at room temperature if exposed.

11. Toxicological Information

Acute Toxicity :

EPOXY RESIN (CAS: 25068-38-6): LD50=11400 mg/kg (Oral, Rat); LD50> 1200 mg/kg (Dermal, Rat).

Polyether Polyol(CAS#9051-49-4): LD50 =20.8 g/kg(Oral, Rat).

3-Mercapto-1,2-propanediol(CAS#96-2 7-5): LD50 = 645 mg/kg(Oral, Rat);LD50 = 670 mg/kg(Dermal, Rabbit).

Serious Eye Damage/Eye Irritation: Causes serious eye irritation.

Skin Corrosion/Irritation: Causes skin irritation.

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: No data available.

Carcinogenicity: None of the components of this product is listed as a carcinogen by IARC, NTP, US OSHA.

Reproduction Toxicity: No data available.

Specific Target Organ Toxicity - Single Exposure: No data available.

Specific Target Organ Toxicity - Repeated Exposure: No data available.

Potential Acute Health Effects

Eyes Contact: Causes serious eye irritation.

Skin Contact: Causes skin irritation. May cause allergic skin reaction. Repeated or prolonged contact may cause skin irritation and dermatitis.

Inhalation: High airborne concentrations of vapors may cause irritation of the respiratory track and mucous membranes.

Ingestion: Ingestion may cause irritation. Harmful if swallowed.

12. Ecological Information

Toxicity: Harmful to aquatic life with long lasting effects.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: polymerize to solid when exposed to environment. Not liable to move.

Other Adverse Effects: Do not let the material enter ground water, sewage system. Do not release to environment without the permission of the local government.

13. Disposal Considerations

Waste Disposal Methods: Dispose of contents/container observing all federal, state, and local environmental regulations.

14. Transport Information

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Road Regulation (ADR/RID)

Not regulated as hazardous material or dangerous goods.

Air Transportation (IATA /ICAO)

Not regulated as hazardous material or dangerous goods.

Marine Transportation (IMO/IMDG)

Not regulated as hazardous material or dangerous goods.

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15. Regulatory Information

This safety data sheet has been prepared according to EC Regulation No. 453/2010. The product has been classified in accordance with EC Regulations, No. 1272/2008/EC, No. 1999/45/EC and No. 67/548/EEC.

16. Other Information

Abbreviations: pH - Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0

is highly acidic and 14 is highly alkaline

OSHA- Occupational Safety and Health Administration

IARC- International Agency for Research on Cancer

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds

ADR - Agreement on Dangerous Goods by Road

RID - Regulations Concerning the International Carriage of Dangerous Goods by Rail

ICAO - International Civil Aviation Organization

IATA - International Air Transport Association

IMO - International Marine Organization

IMDG - International Maritime Dangerous Goods

Further Information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department Issuing SDS:

Issue Date: September 9, 2018