



SAFETY DATA SHEET

MAKCOTE EPOXY BINDER BASE

Makrete Pty Ltd
Version No: 1.0

Issue Date: May 2023

GHS7

SECTION 1 MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product Identifier

| | |
|--------------|---------------------------|
| Product Name | MAKCOTE EPOXY BINDER BASE |
|--------------|---------------------------|

Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------------------|--|
| Relevant Identified uses | Base component of epoxy floor coating and repair mortar systems. |
|--------------------------|--|

Details of the supplier of the safety data sheet

| | |
|-------------------------|--|
| Registered Company Name | Makrete Pty Ltd |
| Address | PO Box 50, Montmorency, VIC 3094 |
| Telephone | 1300 911 161 |
| Website | www.makrete.com.au |
| Email | admin@makrete.com.au |

Emergency telephone number

| | |
|-----------------------------------|--------------|
| Emergency Telephone Numbers | 1300 911 161 |
| Other emergency telephone numbers | |

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code

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| Poisons Schedule | S5 |
| Classification | Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Skin Sensitizer Category 1, Acute Aquatic Hazard Category 2, Chronic Aquatic Hazard Category 2 |

Label elements

| | |
|---------------------|--|
| Hazard pictogram(s) | |
|---------------------|--|

| | |
|-------------|----------------|
| SIGNAL WORD | WARNING |
|-------------|----------------|

Hazard statement(s)

| | |
|------|--|
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |

Precautionary statement(s) Prevention

| | |
|------|--|
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P260 | Avoid breathing mist/vapours/spray. |
| P271 | Avoid release to the environment. |
| P280 | Contaminated work clothing should not be allowed out of the workplace. |

Precautionary statement(s) Response

| | |
|----------------|--|
| P362 | Take off contaminated clothing and wash before reuse. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |

Precautionary statement(s) Storage

Not applicable.

Precautionary statement(s) Disposal

| | |
|------|---|
| P501 | Dispose of contents/container in accordance with local regulations. |
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures.

Chemical Entity

| CAS No | %[weight] | Name |
|------------|-----------|---|
| 25068-38-6 | 10-30 | <u>bisphenol A/ Di glycidyl ether resin, liquid</u> |
| 28064-14-4 | 1-10 | <u>bisphenol F glycidyl ether/ formaldehyde copolymer</u> |
| 68609-97-2 | 1-10 | <u>(C12-14) alkyl glycidyl ether</u> |

SECTION 4 FIRST AID MEASURES

Description of First Aid Measures

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| Eye Contact | <p>If this product meets the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</p> |
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| | |
|---------------------|---|
| Skin Contact | If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water and soap if available. Seek medical attention in event of irritation. |
| Inhalation | If fumes or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary. |
| Ingestion | If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness, i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice. Avoid giving milk or oils. If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower their hips to help avoid possible aspiration of vomitus. |

Indication of any immediate medical attention and special treatment needed – Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

Foam

Dry chemical powder

BCF (where regulations permit)

Carbon dioxide

Special hazards arising from the substrate or mixture.

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| Fire Incompatibility | Avoid contamination with oxidising agents i.e., nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|---|

Advice for firefighters

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| Fire Fighting | Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent by any means available, spillage from entering drains or water course. Use firefighting procedures suitable for surrounding areas. |
| Fire Explosion Hazard | Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion products may include: Carbon Dioxide (CO ₂) Silicon Dioxide (SiO ₂) Other pyrolysis products typical of burning organic material. |
| HAZCHEM | 3Z |

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8.

Environmental precautions

See section 12.

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| Minor Spills | <p>Environmental hazard – contain spillage. Check regularly for spills and leaks. Slippery when spilt. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite.</p> |
| Major Spills | <p>Environmental hazard – contain spillage. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus and tell them location and nature of hazard.</p> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

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| Safe Handling | <p>DO NOT allow clothing wet with material to stay in contact with skin. Electrostatic discharge may be generated during pumping - this may result in fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping to avoid generation of electrostatic discharge (≤ 1 m/sec until fill pipe submerged to twice its diameter, then ≤ 7 m/sec). Avoid splash filling. Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with moisture.</p> |
| Other information | <p>Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. No smoking, naked lights, heat or ignition sources.</p> |

Conditions for safe storage, including any incompatibilities.

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| Suitable Container | <p>Metal can or drum. Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.</p> |
| Storage Incompatibility | <p>Glycidyl ethers: May form unstable peroxides on storage in air, light, sunlight, UV light or other ionising radiation, trace metals – inhibitor should be maintained at adequate levels. May polymerise in contact with heat, organic and inorganic free radical producing initiators. May polymerise with evolution of heat in contact with oxidisers, strong acids, bases and amines. React violently with strong oxidisers, permanganates, peroxides, acyl halides, alkalis, ammonium persulfate, bromine dioxide. Attack some forms of plastics, coatings, and rubber. Avoid cross contamination between the two liquid parts of product (kit). If two-part products are mixed or allowed to mix in proportions other than manufacturer's recommendation, polymerisation with gelation and evolution of heat (exotherm) may occur. This excess heat may generate toxic vapour. Avoid reaction with amines, mercaptans, strong acids and oxidising agents</p> |

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS (OEL)


INGREDIENT DATA

Not Applicable

EMERGENCY LIMITS

| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|--|--|----------------------|-----------------------|-------------------------|
| bisphenol A/ Di glycidyl ether resin, liquid | Epoxy resin includes EPON 1001, 1007, 820, ERL-2795 | 90 mg/m ³ | 990 mg/m ³ | 5,900 mg/m ³ |
| bisphenol F glycidyl ether/ formaldehyde copolymer | Phenol, polymer with formaldehyde, oxiranyl methyl ether | 30 mg/m ³ | 330 mg/m ³ | 2,000 mg/m ³ |

EXPOSURE CONTROLS

| | |
|---|--|
| Appropriate Engineering Controls | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</p> |
| Personal Protection |  |
| Eye and Face Protection | <p>Safety glasses with side shields.</p> <p>Chemical goggles.</p> <p>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.</p> |
| Skin Protection | <p>See Hand protection below.</p> |
| Hands/Feet protection | <p>The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</p> <p>Contaminated leather items, such as shoes, belts and watchbands should be removed and destroyed.</p> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer.</p> <p>Where the chemical is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances must be obtained from the manufacturer of the protective gloves and must be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care.</p> <p>Leather wear not recommended: Contaminated leather footwear, watch bands, should be destroyed, i.e. burnt, as they cannot be adequately decontaminated.</p> <p>When handling liquid-grade epoxy resins wear chemically protective gloves (e.g. nitrile or nitrile-butadiene rubber), boots and aprons.</p> |

| | |
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| | DO NOT use cotton or leather (which absorb and concentrate the resin), polyvinyl chloride, rubber or polyethylene gloves (which absorb the resin). DO NOT use barrier creams containing emulsified fats and oils as these may absorb the resin; silicone-based barrier creams should be reviewed prior to use. |
| Body protection | See Other protection below. |
| Other protection | Overalls PVS Apron PVC protective suit may be required if exposure is severe. Eyewash unit |
| Thermal hazards | Not Available |

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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|---|--|--|----------------|
| Appearance | Clear transparent liquid immiscible with water | | |
| Physical state | Liquid | Relative density (Water = 1) | 1.0 -1.1 |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour Threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| pH (as supplied) | Not Available | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | Not Available | Molecular Weight (g/mol) | Not Applicable |
| Flash point (°C) | >93 | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Not Applicable | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol) | Not Available |
| Solubility in water (g/L) | Immiscible | pH as a solution (1%) | Not Available |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |

SECTION 10 STABILITY AND REACTIVITY

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| Reactivity | See Section 7 |
| Chemical stability | Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See Section 7 |
| Conditions to avoid | See Section 7 |
| Incompatible materials | See Section 7 |
| Hazardous decomposition products | See Section 5 |

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

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|---------------------|---|
| Inhaled | Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and in co-ordination. |
| Ingestion | Accidental ingestion of the material may be damaging to the health of the individual. |
| Skin Contact | This material can cause inflammation of the skin on contact in some persons. The material may accentuate any preexisting dermatitis condition. Open cuts abraded or irritated skin should not be exposed to this material. Entry into the bloodstream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. |
| Eye | This material can cause eye irritation and damage in some persons. |
| Chronic | Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. |

SECTION 12 ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients):>100mg/L

Long-term aquatic hazard: This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data. Acute toxicity estimate (based on ingredients):>100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log Kow<4.

Ecotoxicity: No information available

Persistence and degradability: No

information available Bio accumulative

potential: No information available

Mobility: No information available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

| | |
|------------------------------------|--|
| Product /Packaging disposal | <p>Containers may still present a chemical hazard/danger when empty. Return to supplier for reuse/recycling if possible. Otherwise, if container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be reused to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</p> <p>Where possible retain label warnings and SDS and observe all notices pertaining to the product.</p> <p>Do not allow to wash water from cleaning or process equipment to enter drains.</p> <p>It may be necessary to collect all wash water for treatment before disposal.</p> <p>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</p> <p>Where in doubt contact the responsible authority.</p> <p>Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Treat and neutralise at an approved treatment plant. Treatment should involve: Neutralisation with suitable dilute acid followed by burial in a land fill specifically licensed to accept chemical and/or pharmaceutical wastes or incineration in a licensed apparatus(after admixture with suitable combustible material).</p> |
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SECTION 14 TRANSPORT INFORMATION

Labels Required

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|-------------------------|--|
| Marine Pollutant |  |
| |  |
| HAZCHEM | 3Z |

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

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, Health and Environmental Regulations / Legislation specific for the substance or mixture

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

Australia Hazardous Substances Information System – Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

International Agency for Research on Cancer (IARC) – Agents classified by the IARC Monographs

International Air Transport Association (IATA) Dangerous Goods Regulations – Prohibited List Passenger and Cargo Aircraft

| National Inventory | Status |
|-------------------------------|---|
| Australia - AICS | Y |
| Canada - DSL | Y |
| Canada - NDSL | N |
| China - IECSC | Y |
| Europe - EINEC / ELINCS / NLP | N |
| Japan - ENCS | N |
| Korea - KECI | Y |
| New Zealand - NZIoC | Y |
| Philippines - PIGGS | Y |
| USA - TSCA | Y |
| Legend: | <p>Y = All ingredients are on the inventory</p> <p>N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)</p> |

SECTION 16 OTHER INFORMATION

This Safety Data Sheet (SDS) summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and how to safely handle and use the product in the workplace. Since the company cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage review the SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.