

Safety Data Sheet

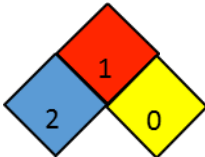
LIQUID BRIDGE PLUG (PART A)

Date of Issue : 06.01.2024

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Valid no longer than : 06.01.2029

1. Chemical product and company identification

Supplier : Well Engineering & Technology Sdn Bhd 6.07 Level 6, Menara Hap Seng Jalan P. Ramle 50250 Kuala Lumpur	Trade Name : LIQUID BRIDGE PLUG ® (RESIN) PART A 
Telephone Number: Tel : +603 2022 0803 Email : welltech@welltechengineering.com Mobile Number: +6019 356 6035 Contact Person: Phil Navage	Chemical / Technical Nature : Product Type: PROPRIETARY BLEND Product Code : E-RES

2. Composition / information on ingredients

Chemical Name	CAS No.	Weight %
Proprietary Blend	28064-14-4	100

3. Hazards

Identification Emergency Overview	
Human Health Hazards	May be irritating to the eyes and skin. May cause skin sensitization
Safety Hazards	Not classified as flammable but will burn

4. First Aid Measures

Inhalation	Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention
Skin Contact	Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse
Eye Contact	Flush eyes with plenty of water for 15 minutes while holding eyelids Open. Get medical attention

Ingestion	Do not induce vomiting. In general, no treatment is necessary unless Large quantities of product are ingested. However, get medical advice
Notes to Physician	
Symptoms	Irritation as noted above. Skin sensitization (allergy) may be evidenced by rashes, especially hives
Treatment	In general, emesis induction is unnecessary in high viscosity, low Volatility products

5. Fire-Fighting Measures

Unsuitable Extinguishing Agents	Water in a jet
Suitable Extinguishing Media	Use water fog, "alcohol foam", dry chemical or carbon dioxide
Specific Hazards During Fire-Fighting	Keep adjacent containers cool by spraying with water Not classified as flammable but will burn. Carbon monoxide may be evolved if incomplete combustion occurs
Special Protective Equipment for Fire-Fighting	Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus

6. Accidental Release Measures

Personal Precautions	Avoid contact with skin, eyes, and clothing.
Environmental Precautions	Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. If material enters drains, it should be pumped out into an open vessel. Emergency services may need to be called to assist in this operation.
Clean Up Methods – Small Spillage	Take up with an absorbent material and dispose of properly.
Clean Up Methods – Large Spillage	Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material; place in non-leaking containers for proper disposal. Flush area with water to remove trace residue.

Additional Advice	Notify authorities if any exposures to the general public or environment occurs or is likely to occur. See Section 13 for information on disposal.

7. Handling and Storage

Handling Advice on Safe Handling	Containers, even those that have been emptied, can contain hazardous product residues. Handle in accordance with the potential hazard of the curing agent used. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Launder contaminated clothing before reuse. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse. WARNING. May cause skin and eye irritation. May cause skin sensitization. Minimize skin contact. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Heating this resin above 300 deg. F in the presence of air may cause slow oxidative decomposition, above 500 deg. F, polymerization may occur. Some curing agents, e.g., aliphatic polyamines can produce exothermic reactions which in large masses can cause runaway polymerization and charring of the reactants. Fumes and vapors from the thermal and chemical decompositions vary widely in composition and toxicity. Do not breathe fumes. Use a NIOSH-approved respirator as required to prevent overexposure. In accord with 29 CFR.1910.134, use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.
Storage Requirements for Storage Areas and Containers	Store in a cool, dry place with adequate ventilation. Keep Away from open flames and high temperatures.

8. Exposure Controls / Personal Protection

Protective Measures	Wear appropriate respirator and protective clothing.
Eye Protection	Avoid contact with eyes. Wear safety glasses or goggles as appropriate.
Hand Protection	Nitrile rubber gloves Butyl rubber gloves

	Gauntlet type
Skin and Body Protection	Avoid prolonged or repeated contact with skin. Wear chemical-resistant gloves and other clothing as required to minimize contact.
Respiratory Protection	Not normally required.

Exposure Guidelines:

Components with workplace control parameters	Regulation	Exposure Time	Value	Remarks
Phenol, polymer with formaldehyde, glycidylether	ACGIH			None established

9. Physical & Chemical Properties

Form	Liquid
Colour	Light Yellow
Odour	Slight
pH	CA. 7
Boiling Point	> 200 °C (> 392 °F)
Flash Point	> 150 °C (> 302 °F) > 300 °C (> 572 °F)
Auto Ignition Temperature	82 Pa at 20 °C (68 °F)
Vapour Pressure	Typical 1,170 kg/m ³ at 25 °C (77 °F)(SMS 1347)
Density	log Pow : > 3
Partition Coefficient (noctanol / water)	Negligible
Solubility (in water)	2.5 - 4.5 Pa.s at 25 °C (77 °F) ASTM D-445
Viscosity, Dynamic	The above properties are typical values only and do not constitute a specification (refer to supplier for supply specification).
Other physico-chemical properties	

10. Stability & Reactivity

Materials to Avoid	Can react vigorously with strong oxidizing agents, strong lewis or mineral acid, and strong mineral and organic bases, especially primary and secondary aliphatic amines.
Hazardous Decomposition Products	Carbon monoxide, aldehydes, acids, and other organic substances may be formed

	during combustion or thermal or oxidative decomposition. Reaction with some curing agents may produce considerable heat. Run-a-way cure reactions may char and decompose the resin system generating unidentified fumes and vapors which may be toxic.
Hazardous Reactions	Stable. Hazardous polymerization will not occur.

11. Toxicological Information

Acute Oral Toxicity	Low toxicity, LD50 > 2000 mg/kg.
Acute Dermal Toxicity	Low toxicity, LD50 > 2000 mg/kg.
Acute Inhalation Toxicity	No data available.

Chronic Health Hazard

Components	Concentration	Regulation	Value	Remarks
Phenol, polymer with formaldehyde, glycidyl ether	100 %			This component has not been classified by the International Agency for Research on Cancer (IARC).
Eye Irritation	Slightly irritating to the eyes			
Skin Irritation	Slightly irritating to the skin			
Sensitization	Skin sensitizer			
Carcinogenicity	This product contains trace residual quantities of epichlorohydrin (ECH), CAS no. 106-89-8. It is very unlikely that normal work practices with this product could result in measurable ECH concentrations in this workplace atmosphere. Nevertheless, you should be aware that ECH has been reported to produce cancer in laboratory animals and to produce mutagenic changes in bacteria and cultured human cells.			

Mutagenicity	Not considered to be a mutagenic hazard.
Basis for Assessment	Information given is based on product data.
Human Effects	See Section 4 for information regarding acute effects to humans.

Potential Health Effects

Inhalation	Not expected to be a relevant route of exposure, however, under conditions where exposure to vapors or mists is possible, could cause respiratory tract irritation.
Skin	May be moderately irritating to the skin. May cause skin sensitization.
Eyes	May be moderately irritating to the eyes.
Ingestion	Not expected to be a relevant route of exposure, however, product is expected to have a low order of acute oral toxicity.
Aggravated Medical Condition	Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product.

12. Ecological Information

Elimination Information (Persistence and degradability)

Biodegradability

This section will be updated as ecological reviews are completed.

Ecotoxicity Effects

Toxicity to Fish

This section will be updated as ecological reviews are completed.

13. Disposal Considerations

Product Disposal

If this material becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with local and federal regulations.

14. Transport Information

CFR_Road	Not regulated for transport
IATA_C	Not regulated for transport
IMDG	Not regulated for transport
CFR_Rail	Not regulated for transport

15. Regulatory

Information Notification Status

AICS	Y
DSL	Y
INV (CN)	Y
TSCA	Y
KECI (KR)	Y
PICCS (PH)	Y
ENCS (JP)	No
EU NLP	NLP(CAS nr 9003-36-5)

Notification Status Legend

Y = Yes;

AICS = Australian Inventory of Chemical Substances

DSL = Canadian Domestic Substances List

INV(CN) = Inventory of Existing Chemical Substances in China

ENCS(JP) = Japanese Existing and New Chemical Substances

TSCA = Toxic Substance Control Act

EINECS = European Inventory of New and Existing Chemicals

KECI(KR) = Korean Existing Chemicals Inventory

PICCS(PH) = Philippine Inventory of Chemicals and Chemical Substances

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Phenol, polymer with formaldehyde, No RQ glycidyl ether

SARA 311 / 312 Hazards

Acute Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA)

SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) – Supplier

Notification Required

Phenol, polymer with formaldehyde, No De minimis Concentration glycidyl ether

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA)

SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

Phenol, polymer with formaldehyde,
Threshold Planning Quantity: No TPQ glycidyl ether

Phenol, polymer with formaldehyde,
Reportable quantity: No RQ glycidyl ether

New Jersey Right-To-Know Chemical List

Phenol, polymer with formaldehyde,
Not Listed glycidyl ether

Additional Components Not Found in Section 2:

Components	CAS No.	Concentration	Remarks
Proprietary Blend	106-59-8	< 50 PPM	Listed

Pennsylvania Right-To-Know Chemical List

Phenol, polymer with formaldehyde,
Not Listed glycidyl ether

Additional Components Not Found in Section 2:

Components	CAS No.	Concentration	Remarks
Proprietary Blend	06-89-8	< 50 PPM	Special Hazard

Massachusetts Right-To-Know Chemical List

Phenol, polymer with formaldehyde,
Not Listed glycidyl ether

Additional Components Not Found in Section 2:

Components	CAS No.	Concentration	Remarks
Proprietary Blend	106-89-8	< 50 PPM	Carcinogenic

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

Additional Components Not Found in Section 2:

Components	Concentration	Regulation	Value	Remarks
1-chloro-2-3-epoxy propane	< 50 PPM	US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)	Listed: October 1, 1987	Carcinogenic

16. Other Information

Reference : Prepared in accordance with 29 CFR 1910.1200.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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