

SAFETY DATA SHEET

M-Bond GA-2 Resin


ACCORDING TO: CODE OF PRACTICE FOR THE PREPARATION OF SAFETY DATA SHEETS FOR HAZARDOUS CHEMICALS (SAFE WORK AUSTRALIA, 2020) & GHS 7

Date of issue: 24/02/2023
Date of First Issue: 24/02/2023
Version: 1.0

SECTION 1: IDENTIFICATION

1.1 GHS Product identifier	
Product name	M-Bond GA-2 Resin
CAS No.	Not applicable - Mixture
1.2 Recommended use of the chemical and restrictions on use	
Identified Use(s)	Adhesive
Uses advised against	Anything other than the above.
1.3 Details of the supplier	
Company Identification	VISHAY MEASUREMENTS GROUP, INC. Post Office Box 27777 Raleigh, NC 27611 USA +1 919-365-3800 mm.us@vpgsensors.com
Telephone	
E-mail (competent person)	
Importer/Distributor name, address and telephone number	
Name	
Company Address	
Telephone	
1.4 Emergency Phone No.	
Emergency Phone No.	1-800-424-9300 (24 hours) 61-290372994 (for spills and releases) CHEMTREC (24 hours)
Languages spoken	English

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture	
2.1.1 In accordance with the Safe Work Australia model Work Health and Safety Regulations (2020) & GHS 7	Skin corrosion/irritation - Category 2; H315 Skin sensitization - Category 1; H317 Serious eye damage/ Eye Irritation - Category 2A; H319 Hazardous to the aquatic environment, Chronic - Category 3; H412
2.2 GHS label elements, including precautionary statements	
Product name	M-Bond GA-2 Resin
Hazard Pictogram(s)	 Exclamation mark
Signal Word(s)	WARNING
Hazard Statement(s)	H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H412: Harmful to aquatic life with long lasting effects.
Precautionary Statement(s)	P264: Wash hands and exposed skin thoroughly after handling. P273: Avoid release to the environment.

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P280: Wear protective gloves and eye/face protection.
P302+P352: IF ON SKIN: Wash with plenty of water.
P362+P364: Take off contaminated clothing and wash it before reuse.
P391: Collect spillage.

2.3 Other hazards which do not result in classification not applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances - Not applicable.

3.2 Mixtures

GHS Classification

Chemical identity of the substance	Common name(s), synonym(s) of the substance	%W/W	CAS No.	EC No.	Hazard classification
Limestone	-	30 – 35	1317-65-3	215-279-6	Not classified
Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxymethyl butane; 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	-	27 - 32	30499-70-8	608-489-8	Skin corrosion/irritation - Category 2; H315 Skin sensitization – Category 1; H317 Eye Damage/Irritation - Category 2A; H319 Hazardous to the aquatic environment, Chronic, Category 3; H412
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	-	15 – 20	25068-38-6	500-033-5	Skin corrosion/irritation - Category 2; H315 Skin sensitization – Category 1; H317 Eye Damage/Irritation - Category 2A; H319 Hazardous to the aquatic environment, Chronic, Category 2; H411

For full text of H phrases see section 16.

SECTION 4: FIRST AID MEASURES



4.1 Description of necessary first-aid measures

Self-protection of the first aider

Inhalation

Skin contact

Eye contact

Do not breathe vapour. Wear suitable protective clothing. Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Do not use mouth-to-mouth resuscitation.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

IF ON SKIN: Remove contaminated clothing and wash all affected areas with plenty of water. Contaminated clothing should be thoroughly cleaned. If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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Ingestion	IF SWALLOWED: Rinse mouth. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
4.2 Most important symptoms/effects, acute and delayed	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.
4.3 Indication of immediate medical attention and special treatment needed, if necessary	Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media	Suitable extinguishing media	As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam or waterspray.
	Unsuitable extinguishing media	Do not use water jet. Direct water jet may spread the fire.
5.2 Specific hazards arising from the chemical		May decompose in a fire giving off toxic fumes. Carbon dioxide and Carbon monoxide.
5.3 Special protective actions for fire-fighters		Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.
5.4 Hazchem code		not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Do not breathe vapour. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. See Section: 8. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
6.2 Environmental precautions	Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.
6.3 Methods and material for containment and cleaning up	Ensure suitable personal protection (including respiratory protection) during removal of spillages. Contain spillages. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste.
6.4 Reference to other sections	See Section: 8,13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling	Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not breathe vapour. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Take precautionary measures against static discharge.	
7.2 Conditions for safe storage, including any incompatibilities	Keep only in original container. Store in a well-ventilated place. Keep container tightly closed. Keep away from direct sunlight.	
	Storage temperature	Ambient (<30°C)
	Storage measures	Stable under normal conditions.
	Incompatible materials	Keep away from: Oxidizing agents, Corrosive Substances, Reducing agent, Strong Acids and Alkalis.
7.3 Specific end use(s)		See Section: 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
8.1.1 Occupational exposure limits

United Kingdom

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
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Calcium carbonate inhalable dust	1317-65-3	-	10	-	-	-
respirable		-	4	-	-	-

Source: UK WEL: Workplace Exposure Limit (UK HSE EH40)

- 8.1.2 Biological limit value** Not established
- 8.2 Exposure controls**
- 8.2.1 Appropriate engineering controls** Ensure adequate ventilation or use appropriate containment. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Guarantee that the eye flushing systems and safety showers are located close to the working place.
- 8.2.2 Individual protection measures, such as personal protective equipment** General hygiene measures for the handling of chemicals are applicable. Avoid contact with skin, eyes or clothing. Do not breathe vapour. Wash hands before breaks and after work. Keep work clothes separately. Contaminated clothing should be laundered before reuse. Do not eat, drink or smoke at the work place.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye/ face protection



Wear eye protection with side protection (EN166). Wear protective eye glasses for protection against liquid splashes. Recommended: Safety spectacles/goggles/full face shield

Skin protection



Hand protection: Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Recommended: Neoprene.

Body protection: Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection



In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment. Select a filter suitable for organic gases and vapours. Recommended: EN143, Filter type A.

Not applicable.

Thermal hazards

- 8.2.3 Environmental exposure controls** Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES AND SAFETY CHARACTERISTICS

9.1 Basic physical and chemical properties

Physical state	Liquid
Colour	black
Odour	Ether-like
Melting point/freezing point	ca. 320°C (bisphenol-A-(epichlorhydrin)
Boiling point or initial boiling point and boiling range	>260°C (Mixture)
Flammability	Highly flammable liquid and vapour.
Lower and upper explosion limit/flammability limit	No data available
Flash point	>93°C [Closed cup]
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available

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Kinematic viscosity	No data available
Solubility	Slightly soluble in: Water (Mixture)
Partition coefficient n-octanol/water (log value)	log Pow \geq 2.918 (bisphenol-A-(epichlorhydrin))
Vapour pressure	<0.1 mmHg @ 20°C
Density and/or relative density	1.51 g/cm ³ (H ₂ O = 1) (Mixture)
Relative vapour density	No data available
Particle characteristics	Not applicable (Liquid)

9.2 Other information

Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
Evaporation rate<1	8 (BuAc = 1)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	Epoxy resins release phenolics, carbon monoxide, and water.
10.4 Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from direct sunlight. Keep at a temperature not exceeding (°C): 30.
10.5 Incompatible materials	Reacts violently with - Oxidizing agents, Corrosive Substances, Reducing agent, Strong Acids and Alkalis.
10.6 Hazardous decomposition products	May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide, Phenolic and Explosive Peroxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects	
Acute toxicity - Ingestion	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LD50: >300 - ≤2000 mg/kg bw/day.
Acute toxicity - Inhalation	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 20 mg/l.
Acute toxicity - Dermal	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LD50 >2000 mg/kg bw/day.
Skin corrosion/irritation	Mixture: Skin corrosion/irritation - Category 2; H315: Causes skin irritation. Skin corrosion/irritation - Category 2; H315: Causes skin irritation. EU classification and labelling inventory > 200 Notifiers
Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxymethyl butane; 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	Skin corrosion/irritation - Category 2; H315: Causes skin irritation. Hazardous Chemical Information System (HCIS) EU Harmonised Classification / ECHA registration dossier
Serious eye damage/irritation	Mixture: Serious eye damage/ Eye Irritation - Category 2A; H319: Causes serious eye irritation. Serious eye damage/ Eye Irritation - Category 2A; H319: Causes serious eye irritation. EU classification and labelling inventory > 200 Notifiers
Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxymethyl butane; 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	Serious eye damage/ Eye Irritation - Category 2A; H319: Causes serious eye irritation. Hazardous Chemical Information System (HCIS) EU Harmonised Classification / ECHA registration dossier

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Respiratory or skin sensitisation

Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxymethyl butane; 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)

Mixture: Skin sensitization - Category; H317: May cause an allergic skin reaction.

Skin sensitization - Category; H317: May cause an allergic skin reaction.
EU classification and labelling inventory >200 Notifiers

Germ cell mutagenicity

Carcinogenicity

Reproductive toxicity

STOT - single exposure

STOT - repeated exposure

Aspiration hazard

Skin sensitization - Category; H317: May cause an allergic skin reaction.
Hazardous Chemical Information System (HCIS)
EU Harmonised Classification / ECHA registration dossier

Mixture: Based upon the available data, the classification criteria are not met.

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Mixture: Based upon the available data, the classification criteria are not met.

Information on likely routes of exposure

Inhalation
Ingestion
Skin contact
Eye contact

Unlikely – accidental exposure
Possible – accidental exposure
Possible – accidental exposure
Possible – accidental exposure

Symptoms related to the physical, chemical and toxicological characteristics

not applicable

Delayed and immediate effects and also chronic effects from short and long term exposure

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Numerical measures of toxicity (such as acute toxicity estimates)

None Known

Interactive effects

None Known

11.2 Other information

NTP Report on Carcinogens
IARC Monographs

None Known
No components listed.
No components listed.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxymethyl butane; 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)

Mixture: Hazardous to the aquatic environment, Chronic, Category 3; H412: Harmful to aquatic life with long lasting effects.
Estimated Mixture LC50 >10 - ≤ 100 mg/l (Fish)

Hazardous to the aquatic environment - Chronic - Category 3
H412: Harmful to aquatic life with long lasting effects.
EU classification and labelling inventory >200 Notifiers

Limestone
Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxymethyl butane;

Hazardous to the aquatic environment - Chronic - Category 2
H412: Harmful to aquatic life with long lasting effects.
Hazardous Chemical Information System (HCIS)
EU Harmonised Classification / ECHA registration dossier

No data for the mixture as a whole.
Not applicable for inorganic substances.
No data available

12.2 Persistence and degradability

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	1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	Little or no biodegradation has been observed. However, degrades by hydrolysis 82% (28 days) EU ECHA Registration Endpoint summary
12.3	Bioaccumulative potential	No data for the mixture as a whole. Not applicable for inorganic substances.
	Limestone	No data available
	Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxymethyl butane;	
	1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	No data available
12.4	Mobility in soil	No data for the mixture as a whole. Adsorption to solid soil phase is not expected. The substance has moderate mobility in soil. EU ECHA Registration Endpoint summary
	Limestone	No data available
	Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxymethyl butane;	
	1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	No data available
12.5	Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Safe handling and disposal methods	Dispose of this material and its container as hazardous waste. Send after pre-treatment to a appropriate hazardous waste incinerator facility according to legislation. Containers of this material may be hazardous when empty since they retain product residue. Dispose of contents in accordance with local, state or national legislation.
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SECTION 14: TRANSPORT INFORMATION

Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods' and Australian Code for the Transport of Dangerous Goods by Road & Rail

	ADR/RID/ADG	IMDG/ADN	IATA/ICAO
14.1	UN number	None assigned	None assigned
14.2	UN proper shipping name	None assigned	None assigned
14.3	Transport hazard class(es)	None assigned	None assigned
14.4	Packing group	None assigned	None assigned
14.5	Environmental hazards	Not classified	Not classified
		Not classified as a Marine Pollutant.	
14.6	Special precautions for user	See Section: 2	
14.7	Transport in bulk according to IMO instruments	Not applicable	
	Hazchem code	Not applicable	

SECTION 15: REGULATORY INFORMATION

- 15.1** Safety, health and environmental regulations specific for the product in question
- 15.2** International regulations

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Montreal Protocol / Stockholm Convention / Rotterdam Convention / Basel Convention / MARPOL	Not listed
IARC Monographs	Not applicable
15.3 National regulations	
Australian Inventory of Chemical Substances	Listed: 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700) All chemicals are not listed
NICNAS - Priority Existing Chemicals	Listed: Limestone (Tier I: Environment Assessment, Tier I: Human Health Assessment)
NICNAS - IMAP Framework	Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxymethyl butane; 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane (Tier I: Environment Assessment, Tier I: Human Health Assessment)
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700) (Tier II: Human Health Assessment)
NICNAS - High Volume Industrial Chemical List	Listed: 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700) (Threshold Range: Between 1,000 and 9,999 tonnes)
National Pollutant Inventory	Not listed
The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)	Not listed

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: V1.0 - Not applicable

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References:

EU Harmonised Classification(s) for 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700) (CAS No.: 25068-38-6)

Existing ECHA registration(s) for 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700) (CAS No.: 25068-38-6)

EU classification and labelling inventory for Limestone (CAS No.: 1317-65-3); Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxymethyl butane; 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane (CAS No.: 30499-70-8)

Australia Hazardous Chemical Information System (HCIS)

GHS Classification	Classification Procedure
Skin corrosion/irritation - Category 2; H315	Threshold Calculation
Skin sensitization - Category 1; H317	Threshold Calculation
Serious eye damage/ Eye Irritation - Category 2A; H319	Threshold Calculation
Hazardous to the aquatic environment, Chronic - Category 3; H412	Summation Calculation

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This Safety Data Sheet was prepared in accordance with Code Of Practice For The Preparation Of Safety Data Sheets For Hazardous Chemicals (Safe Work Australia, 2020) & GHS 7

Legend

ADG	Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
ADR	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration Factor
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL	Derived no effect level
EU	European Union
IATA	IATA: International Air Transport Association
ICAO	ICAO: International Civil Aviation Organization
IMDG	IMDG: International Maritime Dangerous Goods
LTEL	Long term exposure limit
PBT	PBT: Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	RID: Regulations concerning the international railway transport of dangerous goods
STEL	Short term exposure limit
vPvB	vPvB: very Persistent and very Bioaccumulative

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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