

## 1. Identification

**Product identifier** **PENNTROWEL<sup>TM</sup> EPOXY PRIMER RESIN PART A**

**Other means of identification** None.

**Recommended use** Not available.

**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

**Company Name** Armor Limited, Inc.  
**Address** 2410 US-15 South, Sumter, SC 29150

**After hours telephone number** 1-877-982-7667

**Normal work hours telephone number** 1-877-982-7667

**Website** [www.armor-inc.com](http://www.armor-inc.com)

**E-mail** [customerservice@armor-inc.com](mailto:customerservice@armor-inc.com)

**Emergency 24-hour telephone number** CHEMTREC North America: 800-424-9300, International: +1-703-527-3887

**Information on operation hours** 8:00 a.m. to 5:00 p.m.

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Skin corrosion/irritation Category 2

Sensitization, skin Category 1

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Warning

**Hazard statement** Causes skin irritation. May cause an allergic skin reaction.

### Precautionary statement

**Prevention** Wear protective gloves/protective clothing. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

**Response** Take off contaminated clothing and wash before reuse. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

**Storage** Store in a well-ventilated place. Keep container tightly closed.

**Disposal** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
BISPHENOL A-(EPICHLOROHYDRIN) EPOXY RESIN		25068-38-6	65 - 85
BUTYL GLYCIDYL ETHER		2426-08-6	20 - 35
1-CHLORO-2,3-EPOXYPROPANE		106-89-8	< 1

## 4. First-aid measures

<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove and isolate contaminated clothing and shoes. Wash off with soap and plenty of water. For minor skin contact, avoid spreading material on unaffected skin. Get medical attention if irritation develops and persists. Wash clothing separately before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do not induce vomiting. Do not use mouth-to-mouth method if victim ingested the substance. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Upper respiratory tract irritation. Irritation of nose and throat. Irritation of eyes and mucous membranes. Prolonged exposure may cause chronic effects. May cause allergic skin reaction. Irritant effects.
<b>Indication of immediate medical attention and special treatment needed</b>	In case of shortness of breath, give oxygen. Symptoms may be delayed.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Wash contaminated clothing before reuse.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water spray. Water fog. Foam. Carbon dioxide (CO2). Powder.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	No unusual fire or explosion hazards noted.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.
<b>Specific methods</b>	In the event of fire, cool tanks with water spray. Move container from fire area if it can be done without risk.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Avoid inhalation of vapors or mists. Avoid skin contact and inhalation of vapors during disposal of spills.
<b>Methods and materials for containment and cleaning up</b>	<p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth or absorbent material then place into containers. Prevent product from entering drains.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills in original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
<b>Environmental precautions</b>	Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Do not breathe dust/fume/gas/mist/vapors/spray. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Avoid prolonged exposure. Wash hands thoroughly after handling. Avoid release to the environment.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in a well-ventilated place. Keep containers tightly closed. Store in a closed container away from incompatible materials. Store in accordance with local/regional/national/international regulation.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8)	PEL	19 mg/m3
		5 ppm
BUTYL GLYCIDYL ETHER (CAS 2426-08-6)	PEL	270 mg/m3
		50 ppm

#### US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8)	TWA	0.5 ppm
BUTYL GLYCIDYL ETHER (CAS 2426-08-6)	TWA	3 ppm

#### NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8)	IDLH	3.8 %
		75 ppm
BUTYL GLYCIDYL ETHER (CAS 2426-08-6)	IDLH	250 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value
BUTYL GLYCIDYL ETHER (CAS 2426-08-6)	Ceiling	30 mg/m3
		5.6 ppm

**Biological limit values** No biological exposure limits noted for the ingredient(s).

### Exposure guidelines

#### US - California OELs: Skin designation

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8) Can be absorbed through the skin.

#### US - Minnesota Haz Subs: Skin designation applies

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8) Skin designation applies.

#### US - Tennessee OELs: Skin designation

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8) Can be absorbed through the skin.

#### US ACGIH Threshold Limit Values: Skin designation

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8) Danger of cutaneous absorption  
BUTYL GLYCIDYL ETHER (CAS 2426-08-6) Danger of cutaneous absorption

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8) Can be absorbed through the skin.

**Appropriate engineering controls** Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Chemical goggles are recommended.

<b>Skin protection</b>	
<b>Hand protection</b>	Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.
<b>Other</b>	Wear appropriate chemical resistant clothing. Chemical resistant gloves.
<b>Respiratory protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	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

<b>Appearance</b>	Liquid.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Colourless to light yellow.
<b>Odor</b>	Mild. Sweet.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	>230.0 °F (>110.0 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Nil
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Specific gravity</b>	1.11 @25C

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	This product will autopolymerize at very high temperatures. (>200 deg C)
<b>Conditions to avoid</b>	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
<b>Incompatible materials</b>	Strong acids, alkalis and oxidizing agents. Amines.
<b>Hazardous decomposition products</b>	Toxic gas. Irritants.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Inhalation of vapors/fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing or difficulty breathing.
<b>Skin contact</b>	May cause sensitization by skin contact. Causes skin irritation.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	May cause discomfort if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics** May cause an allergic skin reaction. Skin irritation.

### Information on toxicological effects

**Acute toxicity** Not applicable.

Components	Species	Test Results
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1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8)

#### Acute

##### **Dermal**

LD50	Rabbit	300 mg/kg
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##### **Oral**

LD50	Rat	40 mg/kg
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BUTYL GLYCIDYL ETHER (CAS 2426-08-6)

#### Acute

##### **Dermal**

LD50	Rabbit	0.788 g/kg
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\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitization

#### **ACGIH sensitization**

Epichlorohydrin (CAS 106-89-8)	Dermal sensitization
n-Butyl glycidyl ether (BGE) (CAS 2426-08-6)	Dermal sensitization

**Respiratory sensitization** Not available.

**Skin sensitization** May cause an allergic skin reaction.

**Germ cell mutagenicity** Not classified.

**Carcinogenicity** Not assigned.

#### **IARC Monographs. Overall Evaluation of Carcinogenicity**

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8)	2A Probably carcinogenic to humans.
BUTYL GLYCIDYL ETHER (CAS 2426-08-6)	2B Possibly carcinogenic to humans.

#### **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

#### **US. National Toxicology Program (NTP) Report on Carcinogens**

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8)	Reasonably Anticipated to be a Human Carcinogen.
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**Reproductive toxicity** Not available. Not classified.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not applicable.

**Aspiration hazard** Not classified.

**Chronic effects** Hazardous by OSHA criteria. Prolonged exposure may cause chronic effects.

**Further information** Symptoms may be delayed.

## 12. Ecological information

**Ecotoxicity** Contains a substance which causes risk of hazardous effects to the environment. The product contains a substance which is harmful to aquatic organisms.

Product		Species	Test Results
PENNTROWEL™ EPOXY PRIMER RESIN PART A			
Aquatic			
Crustacea	EC50	Daphnia	3.5156 mg/l, 48 hours
Fish	LC50	Fish	1.9525 mg/l, 96 hours
Acute			
Fish	LC50	Fish	2983.6064 mg/l, 96 hours estimated
Components		Species	Test Results
1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8)			
Aquatic			
Acute			
Fish	LC50	Fathead minnow (Pimephales promelas)	9.1 - 12.3 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** Not available.

### Partition coefficient n-octanol / water (log Kow)

1-CHLORO-2,3-EPOXYPROPANE	0.45
BUTYL GLYCIDYL ETHER	0.63

**Mobility in soil** Not available.

**Other adverse effects** Not available.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not discharge into drains, water courses or onto the ground.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Avoid discharge into water courses or onto the ground.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

<b>UN number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s. (BISPHENOL A-(EPICHLOROHYDRIN) EPOXY RESIN)
<b>Transport hazard class(es)</b>	
Class	9
Subsidiary hazard	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	YES
<b>ERG Code</b>	9L
<b>Special precautions for user</b>	Not assigned.
<b>Other information</b>	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

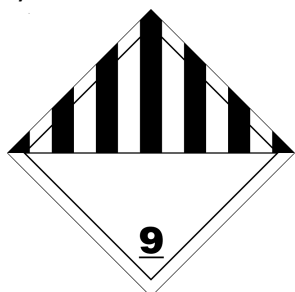
### IMDG

<b>UN number</b>	UN3082
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<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL A-(EPICHLOROHYDRIN) EPOXY RESIN), MARINE POLLUTANT
<b>Transport hazard class(es)</b>	
Class	9
Subsidiary hazard	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	
Marine pollutant	Yes
<b>EmS</b>	F-A, S-F
<b>Special precautions for user</b>	Not assigned.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

**IATA; IMDG**



**Marine pollutant**



**General information** IMDG Regulated Marine Pollutant.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

### Toxic Substances Control Act (TSCA)

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8) 100 LBS

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
1-CHLORO-2,3-EPOXYPROPANE	106-89-8	100	1000		

**SARA 311/312  
Hazardous chemical**

Classified hazard categories	Skin corrosion or irritation Respiratory or skin sensitization
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**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
1-CHLORO-2,3-EPOXYPROPANE	106-89-8	< 1

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8)

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**California Proposition 65****California Proposition 65 - CRT: Listed date/Carcinogenic substance**

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8)	Listed: October 1, 1987
BUTYL GLYCIDYL ETHER (CAS 2426-08-6)	Listed: January 27, 2023

**California Proposition 65 - CRT: Listed date/Male reproductive toxin**

1-CHLORO-2,3-EPOXYPROPANE (CAS 106-89-8) Listed: September 1, 1996

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

Issue date	04-08-2025
Version #	01
Further information	HMIS® is a registered trade and service mark of the NPCA.



**NFPA ratings**

Health: 2  
Flammability: 0  
Instability: 0

**References**

ACGIH  
EPA: AQUIRE database  
NLM: Hazardous Substances Data Base  
HSDB® - Hazardous Substances Data Bank  
IARC Monographs. Overall Evaluation of Carcinogenicity  
National Toxicology Program (NTP) Report on Carcinogens  
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices  
US. IARC Monographs on Occupational Exposures to Chemical Agents

**Disclaimer**

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.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.