

1. Identification

Product identifier	PENNTROWELTM WATER CLEANABLE EPOXY GROUT RESIN
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
E-mail	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	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements



Signal word	Warning
Hazard statement	Causes skin irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	Wash hands after handling. Collect spillage. 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	70 - < 80
[(TOLYLOXY)METHYL]OXIRANE		26447-14-3	0 - 40
1-METHOXYPROPAN-2-OL		107-98-2	5 - < 10

4. First-aid measures

Inhalation

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.

Skin contact

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.

Eye contact

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.

Ingestion

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.

Most important symptoms/effects, acute and delayed

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.

Indication of immediate medical attention and special treatment needed

In case of shortness of breath, give oxygen. Symptoms may be delayed.

General information

If you feel unwell, seek medical advice (show the label where possible). Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Water spray. Water fog. Foam. Carbon dioxide (CO₂). Powder.

Unsuitable extinguishing media

Not available.

Specific hazards arising from the chemical

No unusual fire or explosion hazards noted.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire fighting equipment/instructions

Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.

Specific methods

In the event of fire, cool tanks with water spray. Move container from fire area if it can be done without risk.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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.

Methods and materials for containment and cleaning up

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.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	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.
Conditions for safe storage, including any incompatibilities	Store in a well-ventilated place. Store in original tightly closed container. 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. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
1-METHOXYPROPAN-2-OL (CAS 107-98-2)	STEL	100 ppm
	TWA	50 ppm

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

Components	Type	Value
1-METHOXYPROPAN-2-OL (CAS 107-98-2)	STEL	540 mg/m3
		150 ppm
	TWA	360 mg/m3
		100 ppm

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

Exposure guidelines

US - California OELs: Skin designation

1-METHOXYPROPAN-2-OL (CAS 107-98-2) 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 Do not get in eyes. Chemical goggles are recommended.

Skin protection

Hand protection Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Other Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal hazards Not available.

General hygiene considerations When using, do not eat, drink or smoke. Do not get in eyes. Avoid contact with eyes. Avoid contact with skin. Avoid contact with clothing. Wash hands after handling. Wash hands before breaks and immediately after handling the product. Wash hands after handling and before eating. Keep away from food and drink. Contaminated work clothing should not be allowed out of the workplace. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance	Liquid.
Physical state	Liquid.
Form	Liquid.
Color	Colourless to light yellow.
Odor	Mild.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.

Flash point	>100.0 °F (>37.8 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	518 °F (270 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Specific gravity	1.17

10. Stability and reactivity

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

11. Toxicological information

Information on likely routes of exposure

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

Symptoms related to the physical, chemical and toxicological characteristics	Upper respiratory tract irritation. Irritation of nose and throat. Irritant effects.
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Information on toxicological effects

Acute toxicity	Not applicable.
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Components	Species	Test Results
[(TOLYLOXY)METHYL]OXIRANE (CAS 26447-14-3)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg
Inhalation		
LC50	Rat	> 6.1 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg

Components	Species	Test Results
1-METHOXYPROPAN-2-OL (CAS 107-98-2)		
Acute		
Dermal		
LD50	Rabbit	13 - 14 g/kg
Inhalation		
LC50	Rat	54.6 mg/l, 4 Hours
Oral		
LD50	Rat	5.71 g/kg

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

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	May be irritating to eyes.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	May cause sensitization by skin contact. May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not assigned.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Not listed.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	
Not listed.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
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	Accumulation in aquatic organisms is expected. Contains a substance which causes risk of hazardous effects to the environment. Harmful to aquatic life with long lasting effects. The product contains a substance which is harmful to aquatic organisms.
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Product	Species		Test Results
PENNTROWEL™ WATER CLEANABLE EPOXY GROUT RESIN			
Aquatic			
Crustacea	EC50	Daphnia	3.6178 mg/l, 48 hours
Fish	LC50	Fish	2.0099 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-METHOXYPROPAN-2-OL	-0.49
Mobility in soil	Not available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Do not discharge into drains, water courses or onto the ground. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.
Hazardous waste code	Not applicable.
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

UN number	UN1993
UN proper shipping name	Flammable liquid, n.o.s. (1-METHOXYPROPAN-2-OL)
Transport hazard class(es)	
Class	3
Subsidiary hazard	-
Packing group	III
Environmental hazards	YES
ERG Code	3L
Special precautions for user	Not assigned.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

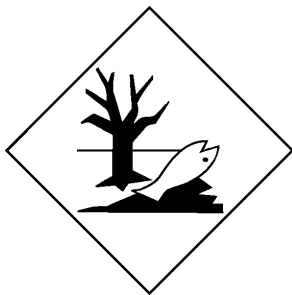
IMDG

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (1-METHOXYPROPAN-2-OL), MARINE POLLUTANT
Transport hazard class(es)	
Class	3
Subsidiary hazard	-
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-E, <u>S</u> - <u>E</u>
Special precautions for user	Not assigned.

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

IATA; IMDG





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)

1-METHOXYPROPAN-2-OL (CAS 107-98-2)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Skin corrosion or irritation

Respiratory or skin sensitization

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

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

Not regulated.

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.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

1-METHOXYPROPAN-2-OL (CAS 107-98-2)

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

Country(s) or region	Inventory name	On inventory (yes/no)*
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	05-23-2023
Revision date	07-22-2024
Version #	02
Further information	HMIS® is a registered trade and service mark of the NPCA.
NFPA ratings	Health: 2 Flammability: 1 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	Hazard(s) identification: Supplemental information Physical & Chemical Properties: Multiple Properties Stability and reactivity: Incompatible materials Stability and reactivity: Reactivity GHS: Classification