

1. Identification

Product identifier	EPOXY COLD ROOM HARDENER
Other means of identification	Not available.
Recommended use	Not available.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company Name	ErgonArmor, a division of Ergon Asphalt & Emulsions, Inc.
Address	2829 Lakeland Drive Jackson, MS 39232 USA
After hours telephone number	1-800-222-7122
Normal work hours telephone number	1-877-982-7667
Website	www.ergonarmor.com
E-mail	sds@ergon.com
Emergency 24-hour telephone number	CHEMTREC: North America 1-800-424-9300 International 1-800-527-3887
Information on operation hours	8:00 a.m. to 5:00 p.m.

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, dermal	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Sensitization, skin	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Warning
Hazard statement	Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.
Prevention	Wear protective gloves. Wear eye/face protection. Avoid breathing mist or vapor. Avoid release to the environment. Wash thoroughly after handling. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Contaminated work clothing should not be allowed out of the workplace.
Response	Specific treatment see Section 4 of this SDS. IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take off contaminated clothing and wash before reuse. If eye irritation persists: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. Collect spillage.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2,2'-IMINODI(ETHYLAMINE)		111-40-0	40 - 60
4,4'-ISOPROPYLIDENEDIPHENOL		80-05-7	40 - 60

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.</p> <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 and place into containers. Use water spray to reduce vapors or divert vapor cloud drift. Following product recovery, flush area with water.</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 to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0)	TWA	1 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0)	TWA	4 mg/m ³
		1 ppm

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

Exposure guidelines

US - California OELs: Skin designation

2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0) Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0) Can be absorbed through the skin.

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear protective gloves.

Skin protection

Other Wear appropriate chemical resistant clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations 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

Appearance	Clear, straw colored liquid
Physical state	Liquid.
Form	Liquid.
Color	Colourless to light yellow.
Odor	Amine-like.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 400 °F (> 204.44 °C)
Flash point	> 212.0 °F (> 100.0 °C) Tag Closed Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
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	750.02 °F (398.9 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	1.08 g/cm3 estimated
Specific gravity	1.08 estimated

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	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Alkaline metals.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. Harmful in contact with skin.
Eye contact	Causes eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Irritation of eyes and mucous membranes.

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
EPOXY COLD ROOM HARDENER (CAS Mixture)		
Acute		
<i>Oral</i>		
LD50	Mouse	5000 mg/kg estimated
	Rat	1627.3972 mg/kg estimated
<i>Other</i>		
LD50	Guinea pig	324 mg/kg estimated
	Mouse	142 mg/kg estimated
	Rabbit	263.7097 mg/kg estimated
	Rat	148 mg/kg estimated
Components		
Species		
Test Results		
2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0)		
Acute		
<i>Oral</i>		
LD50	Rat	1080 mg/kg
<i>Other</i>		
LD50	Guinea pig	162 mg/kg

Components	Species	Test Results
	Mouse	71 mg/kg
	Rabbit	1090 mg/kg
	Rat	74 mg/kg
4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7)		
Acute		
<i>Oral</i>		
LD50	Mouse	2500 mg/kg
	Rat	3300 mg/kg
<i>Other</i>		
LD50	Rabbit	150 mg/kg

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

Skin corrosion/irritation Irritating and may cause redness and pain.
Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.
Skin sensitization May cause sensitization by skin contact.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results
EPOXY COLD ROOM HARDENER (CAS Mixture)		
Crustacea	EC50	Daphnia
		18.4 mg/l, 48 hours estimated
Fish	LC50	Fish
		10.5449 mg/l, 96 hours estimated
Components	Species	Test Results
2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0)		
Aquatic		
Fish	LC50	Guppy (Poecilia reticulata)
		1014 mg/l, 96 hours
4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna)
		9.2 - 11.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)
		3.6 - 5.4 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 No data available.

Partition coefficient n-octanol / water (log Kow)
4,4'-ISOPROPYLIDENEDIPHENOL 3.32

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

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).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number UN2079
UN proper shipping name Diethylenetriamine, MARINE POLLUTANT
Transport hazard class(es)
Class 8
Subsidiary risk -
Label(s) 8
Packing group II
Environmental hazards
Marine pollutant Yes
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions B2, IB2, T7, TP2
Packaging exceptions 154
Packaging non bulk 202
Packaging bulk 242

IATA

UN number UN2079
UN proper shipping name Diethylenetriamine
Transport hazard class(es)
Class 8
Subsidiary risk -
Packing group II
Environmental hazards No.
ERG Code 8L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed.
Cargo aircraft only Allowed.

IMDG

UN number UN2079
UN proper shipping name DIETHYLENTRIAMINE
Transport hazard class(es)
Class 8
Subsidiary risk -
Packing group II
Environmental hazards
Marine pollutant Yes
EmS F-A, S-B
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

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

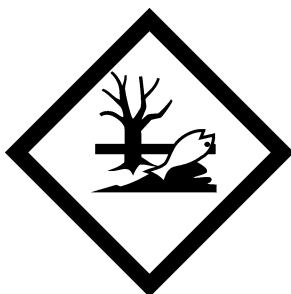
DOT



IATA; IMDG



Marine pollutant



15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7) Listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 No

Hazardous chemical

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
4,4'-ISOPROPYLIDENEDIPHENOL	80-05-7	40 - 60

Other federal regulations

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

4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7)

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

US. Massachusetts RTK - Substance List

2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0)
4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7)

US. New Jersey Worker and Community Right-to-Know Act

4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7) 500 LBS

US. Pennsylvania RTK - Hazardous Substances

2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0)
4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7)

US. Rhode Island RTK

4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	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
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	04-14-2015
Revision date	01-12-2016
Version #	02
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.
Revision Information	Product and Company Identification: Product and Company Identification GHS: Classification