

**1. Identification**

<b>Product identifier</b>	<b>PENNCOAT™ 210 Hardener</b>	
<b>Other means of identification</b>	None.	
<b>Recommended use</b>	Not available.	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Company Name</b>	ErgonArmor, a division of Ergon Asphalt & Emulsions, Inc.	
<b>Address</b>	2829 Lakeland Drive Jackson, MS 39232 USA	
<b>After hours telephone number</b>	1-800-222-7122	
<b>Normal work hours telephone number</b>	1-877-982-7667	
<b>Website</b>	www.ergonarmor.com	
<b>E-mail</b>	sds@ergon.com	
<b>Emergency 24-hour telephone number</b>	CHEMTREC: North America 1-800-424-9300 International 1-800-527-3887	
<b>Information on operation hours</b>	8:00 a.m. to 5:00 p.m.	

**2. Hazard(s) identification**

<b>Physical hazards</b>	Flammable liquids	Category 4
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1A
	Germ cell mutagenicity	Category 2
	Reproductive toxicity (fertility, the unborn child)	Category 2
	Specific target organ toxicity, repeated exposure	Category 2
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
<b>OSHA defined hazards</b>	Not classified.	

**Label elements**



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Combustible liquid. Causes serious eye damage. Suspected of damaging fertility or the unborn child by ingestion. May cause damage to organs through prolonged or repeated exposure by inhalation. Suspected of causing genetic defects. Harmful if inhaled. Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

## Precautionary statement

### Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Avoid release to the environment. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.

### Response

IF SWALLOWED: Immediately call a POISON CENTER/doctor/. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. 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. Take off contaminated clothing and wash before reuse. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse. Specific treatment (see this label). In case of fire: Use appropriate media to extinguish. Collect spillage.

### Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

### 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	%
1,3-PROPANEDIAMINE, N-[3-(TRIDECYLOXY)PROPYL]-, BRANCHED		68479-04-9	20 - 30
Polyoxypropylene diamine		9046-10-0	15 - 20
2-PIPERAZIN-1-YLETHYLAMINE		140-31-8	10 - 20
PHENOL, 4-NONYL-, BRANCHED		84852-15-3	10 - 20
2,2'-IMINODI(ETHYLAMINE)		111-40-0	5 - 15
4,4'-ISOPROPYLIDENEDIPHENOL		80-05-7	5 - 15
Other components below reportable levels			7.5

## 4. First-aid measures

### Inhalation

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Move to fresh air. 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 physician or poison control center immediately. Call a POISON CENTER or doctor/physician if you feel unwell. Call a physician if symptoms develop or persist.

### Skin contact

Take off immediately all contaminated clothing. Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. 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. If eye irritation persists: Get medical advice/attention.

### Ingestion

Rinse mouth. 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

Mild skin irritation. Irritation of eyes and mucous membranes. Prolonged exposure may cause chronic effects. Irritant effects.

### Indication of immediate medical attention and special treatment needed

In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**General information** IF exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

## 5. Fire-fighting measures

**Suitable extinguishing media** Water spray. Water fog. Foam. Carbon dioxide (CO<sub>2</sub>). 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 get this material in contact with eyes. Do not get this material in contact with skin. Avoid breathing vapor. Do not get this material on clothing. Use personal protective equipment as required. Do not use in areas without adequate ventilation. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment.

**Conditions for safe storage, including any incompatibilities** Keep away from heat, sparks and open flame. Store in a well-ventilated place. Store in original tightly closed container. Store in a closed container away from incompatible materials. Keep away from food, drink and animal feedingstuffs.

## 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 <sup>3</sup> 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** 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** Wear approved safety goggles.**Skin protection****Hand protection** Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.**Other** Avoid contact with the skin. 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** Do not get in eyes. Avoid contact with eyes. Avoid contact with skin. Avoid contact with clothing. Wash hands before breaks and immediately after handling the product. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.**9. Physical and chemical properties**

<b>Appearance</b>	Liquid.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	light yellow to amber
<b>Odor</b>	Amine-like.
<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>	> 400 °F (> 204.44 °C)
<b>Flash point</b>	> 212.0 °F (> 100.0 °C) Tag Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1.03 (77 °F (25 °C))
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	644 °F (340 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

**Other information**

**Percent volatile** 15 % 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. Peroxides. Phenols.

**Hazardous decomposition products** No hazardous decomposition products are known.

**11. Toxicological information****Information on likely routes of exposure**

**Inhalation** Harmful if inhaled.

**Skin contact** Causes skin irritation.

**Eye contact** Causes serious eye irritation.

**Ingestion** Harmful if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

**Information on toxicological effects****Acute toxicity**

Components	Species	Test Results
4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	3300 mg/kg

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

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

**Serious eye damage/eye irritation** Causes eye irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not available.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** Suspected of causing genetic defects.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

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

Not listed.

**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

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

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

**Aspiration hazard** Not available.

**Chronic effects** May cause eczema-like skin disorders (dermatitis).

## 12. Ecological information

**Ecotoxicity** The product contains a substance which is harmful to aquatic organisms.

Product	Species	Test Results	
PENNCOAT™ 210 Hardener			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	0.252 mg/l, 48 hours estimated
Fish	LC50	Fish	0.8121 mg/l, 96 hours estimated
<b>Components</b>			
<b>Species</b>			
<b>Test Results</b>			
2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0)			
<b>Aquatic</b>			
Fish	LC50	Guppy (Poecilia reticulata)	1014 mg/l, 96 hours
2-PIPERAZIN-1-YLETHYLAMINE (CAS 140-31-8)			
<b>Aquatic</b>			
Fish	LC50	Fathead minnow (Pimephales promelas)	1950 - 2460 mg/l, 96 hours
4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7)			
<b>Aquatic</b>			
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
PHENOL, 4-NONYL-, BRANCHED (CAS 84852-15-3)			
<b>Aquatic</b>			
Crustacea	EC50	Clam (Mulinia lateralis)	0.0379 mg/l, 48 hours
Fish	LC50	Winter flounder (Pleuronectes americanus)	0.017 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)**

4,4'-ISOPROPYLIDENEDIPHENOL	3.32
PHENOL, 4-NONYL-, BRANCHED	5.71

**Mobility in soil** Not available.

**Other adverse effects** Not available.

## 13. Disposal considerations

**Disposal instructions** Dispose of contents/container in accordance with local/regional/national/international regulations. 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

<b>UN number</b>	UN2735
<b>UN proper shipping name</b>	Polyamines, liquid, corrosive, n.o.s. (2-PIPERAZIN-1-YLETHYLAMINE), MARINE POLLUTANT
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	8
<b>Packing group</b>	III

<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Special precautions for user</b>	Not available.
<b>Special provisions</b>	IB3, T7, TP1, TP28
<b>Packaging exceptions</b>	154
<b>Packaging non bulk</b>	203
<b>Packaging bulk</b>	241

#### IATA

<b>UN number</b>	UN2735
<b>UN proper shipping name</b>	Polyamines, liquid, corrosive, n.o.s. (2-PIPERAZIN-1-YLETHYLAMINE)
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	8L
<b>Special precautions for user</b>	Not available.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed with restrictions.
<b>Cargo aircraft only</b>	Allowed with restrictions.

#### IMDG

<b>UN number</b>	UN2735
<b>UN proper shipping name</b>	Polyamines, liquid, corrosive, n.o.s. (2-PIPERAZIN-1-YLETHYLAMINE), MARINE POLLUTANT
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>EmS</b>	F-A, S-B
<b>Special precautions for user</b>	Not available.

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

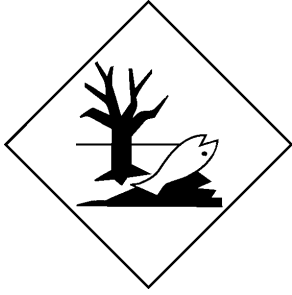
#### DOT



#### IATA; IMDG



## Marine pollutant



### General information

DOT Regulated Marine Pollutant. 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.

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

PHENOL, 4-NONYL-, BRANCHED (CAS 84852-15-3) 1.0 % One-Time Export Notification only.

#### TSCA Chemical Action Plans, Chemicals of Concern

4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7) Bisphenol A Action Plan

PHENOL, 4-NONYL-, BRANCHED (CAS 84852-15-3) Nonylphenol (NP) and Nonylphenol Ethoxylates (NPEs) Action Plan

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

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

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

#### Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)  
Acute toxicity (any route of exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Respiratory or skin sensitization  
Germ cell mutagenicity  
Reproductive toxicity  
Specific target organ toxicity (single or repeated exposure)

#### SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
4,4'-ISOPROPYLIDENEDIPHENOL	80-05-7	5 - 15
PHENOL, 4-NONYL-, BRANCHED	84852-15-3	10 - 20

### 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

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/Female reproductive toxin

4,4'-ISOPROPYLIDENEDIPHENOL (CAS 80-05-7) Listed: May 11, 2015

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

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



## 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
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** 05-17-2021

**Version #** 01

**Further information** HMIS® is a registered trade and service mark of the NPCA.

**NFPA ratings**  
Health: 3  
Flammability: 2  
Instability: 0

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

**Disclaimer**  
The information provided in this Safety Data Sheet is correct to the best of our knowledge 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**  
Product and Company Identification: Alternate Trade Names  
Hazard(s) identification: Response  
Hazard(s) identification: Prevention  
Hazard(s) identification: Storage  
Hazard(s) identification: Hazard statement  
Hazard(s) identification: GHS Symbols  
Hazard(s) identification: Supplemental information  
Toxicological information: Mutagenicity  
Toxicological information: Reproductivity  
Toxicological information: Corrosivity  
Toxicological information: Ingestion  
Toxicological information: Inhalation  
HazReg Data: International Inventories