


**1. Identification**

<b>Product identifier</b>	<b>Pentrowel Water Cleanable Grout Hardener (29443-R)</b>
<b>Other means of identification</b>	None.
<b>Recommended use</b>	Not available.
<b>Recommended restrictions</b>	None known.

**Manufacturer/Importer/Supplier/Distributor information**

<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>	Not classified.	
<b>Health hazards</b>	Acute toxicity, inhalation	Category 2
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	Reproductive toxicity (fertility)	Category 2
<b>Environmental hazards</b>	Not classified.	
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		

<b>Signal word</b>	Danger
<b>Hazard statement</b>	Causes severe skin burns and eye damage. May cause an allergic skin reaction. Fatal if inhaled. Suspected of damaging the unborn child.

**Precautionary statement**
**Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection. Use personal protective equipment as required.

<b>Response</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF exposed or concerned: Get medical advice/attention.
<b>Storage</b>	Store locked up. Store in a well-ventilated place. Keep container tightly closed.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	This product contains a component that is toxic by inhalation when aerosolized or sprayed. Please refer to Section 11 of the SDS for toxicity information. Review the toxicity information against your intended use. If the product is not being aerosolized or sprayed, the inhalation toxicity may not be applicable. May cause sensitization by skin contact. Corrosive. Very toxic by inhalation.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE		68953-36-6	>25%
2,2'-IMINODI(ETHYLAMINE)		111-40-0	<15%
4,4'-ISOPROPYLIDENEDIPHENOL		80-05-7	<10%
TETRAETHYLENE PENTAMINE		112-57-2	<2.5%

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air.
<b>Skin contact</b>	Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. Wash off immediately with plenty of water.
<b>Eye contact</b>	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Take along these instructions.
<b>Ingestion</b>	Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.
<b>Most important symptoms/effects, acute and delayed</b>	Asthma. Eye disease. Kidney disorders. Liver disorders. Skin disorders. Allergies.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Get medical attention. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemicals. Dry sand. Limestone powder.
<b>Unsuitable extinguishing media</b>	Not available.
<b>Specific hazards arising from the chemical</b>	Upon decomposition, this product may yield poisonous gases including oxides of nitrogen, hydrogen gas and ammonia. Material may form irritating and toxic gaseous oxides at high temperatures. Combustion may form carbon monoxide. Decomposition of this product may emit oxides of nitrogen.
<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>	Avoid contact with skin. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. NOTE! Use air-supplied respirators to protect against gases/fumes.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Emergency personnel need self-contained breathing equipment. Wear suitable protective clothing. Immediately evacuate personnel to safe areas.

### Methods and materials for containment and cleaning up

Shut off leaks if without risk. This material and its container must be disposed of as hazardous waste. Clean up in accordance with all applicable regulations.

### Environmental precautions

Do not allow to enter drains, sewers or watercourses. Use appropriate containment to avoid environmental contamination.

## 7. Handling and storage

### Precautions for safe handling

Do not breathe spray. Contains amines. Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines. Avoid contact with skin and eyes. Avoid eating, drinking and smoking when using the product. Wear necessary protective equipment.

### Conditions for safe storage, including any incompatibilities

Do not store near acids. Keep from contact with oxidizing materials. Keep containers tightly closed in a dry, cool and well-ventilated place.

## 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

#### US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
TETRAETHYLENE PENTAMINE (CAS 112-57-2)	TWA	5 mg/m <sup>3</sup> 1 ppm	Aerosol. Aerosol.

### 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.

#### US WEEL Guides: Skin designation

TETRAETHYLENE PENTAMINE (CAS 112-57-2) Can be absorbed through the skin.

### Appropriate engineering controls

Eye wash facilities and emergency shower must be available when handling this product. Use explosion-proof ventilation equipment to stay below exposure limits. Ventilation is normally required when handling or using this product to keep exposure to airborne contaminants below the exposure limit.

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

#### Eye/face protection

Chemical goggles and face shield are recommended.

#### Skin protection

##### Hand protection

Butyl rubber. Nitrile rubber. Neoprene gloves. PVC disposable gloves. Impervious gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

<b>Other</b>	Impervious clothing, gloves and minimum 8 inches face shield. Plastic gloves and boots. Complete suit protecting against chemicals.
<b>Respiratory protection</b>	When spraying use suitable air-supplied respirator.
<b>Thermal hazards</b>	Not available.
<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 to remove contaminants. Discard contaminated footwear that cannot be cleaned. Provide eyewash station and safety shower. Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly.

## 9. Physical and chemical properties

<b>Appearance</b>	Amber Liquid
<b>Physical state</b>	Liquid.
<b>Form</b>	Not available.
<b>Color</b>	Not available.
<b>Odor</b>	Ammoniacal
<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>	> 374 °F (> 190 °C) estimated
<b>Flash point</b>	259.0 °F (126.1 °C) estimated
<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>	< 5.17 mm Hg @70°F (21°C) estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	0.98 estimated
<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>Density</b>	61.18 lb/ft <sup>3</sup> estimated

## 10. Stability and reactivity

<b>Reactivity</b>	Not available.
<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	Not available.
<b>Conditions to avoid</b>	Not available.
<b>Incompatible materials</b>	Not available.

**Hazardous decomposition products**

Nitric Acid. Ammonia. Nitrogen oxides (NOx). Nitrogen compounds. Carbon monoxide. Carbon dioxide. Aldehydes. Hydrocarbon fragments. Nitrogen oxide can react with water vapors to form corrosive nitric acid. Oxides of silicon. Hydrocarbon fragments. Nitrosamine. Chlorine.

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

**Inhalation** Toxic if inhaled. May cause irritation to the respiratory system. Review toxicity information against your intended use.

**Skin contact** Causes skin burns.

**Eye contact** Causes eye burns. May cause blindness.

**Ingestion** May be harmful if swallowed and enters airways. Irritating to mouth, throat and stomach

**Symptoms related to the physical, chemical and toxicological characteristics** Not available.

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

Components	Species	Test Results
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2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0)

**Acute****Oral**

LD50	Rat	1080 mg/kg
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4,4'-ISOPROPYLLIDENEDIPHENOL (CAS 80-05-7)

**Acute****Oral**

LD50	Rat	3300 mg/kg
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TETRAETHYLENE PENTAMINE (CAS 112-57-2)

**Acute****Dermal**

LD50	Rabbit	0.66 g/kg
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**Oral**

LD50	Rat	2.1 g/kg
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**Skin corrosion/irritation** Not available.

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

**Respiratory or skin sensitization**

**Respiratory sensitization** Not available.

**Skin sensitization** May cause irritation.

**Germ cell mutagenicity** Contains a substance which may have a mutagenic effect.

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

Not listed.

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

Not listed.

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

Not regulated.

**Reproductive toxicity** Not available.

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

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

**Aspiration hazard** Not available.

## 12. Ecological information

### Ecotoxicity

Product		Species	Test Results
Pennrowel Water Cleanable Grout Hardener (29443-R)			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	92 mg/l, 48 hours estimated
Fish	LC50	Fish	52.5877 mg/l, 96 hours estimated
<b>Components</b>			
2,2'-IMINODI(ETHYLAMINE) (CAS 111-40-0)			
<b>Aquatic</b>			
Fish	LC50	Guppy (Poecilia reticulata)	1014 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

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

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

4,4'-ISOPROPYLIDENEDIPHENOL	3.32
TETRAETHYLENE PENTAMINE	1.503

**Mobility in soil** Not available.

**Other adverse effects** Not available.

## 13. Disposal considerations

**Disposal instructions** Not available.

**Hazardous waste code** Not regulated.

**Waste from residues / unused products** Avoid discharge into water courses or onto the ground.

**Contaminated packaging** Dispose of container and unused contents in accordance with federal, state, and local requirements.

## 14. Transport information

### DOT

<b>UN number</b>	UN2735
<b>UN proper shipping name</b>	Amines, liquid, corrosive, n.o.s. or Polyamines, liquid, corrosive, n.o.s.
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	8
<b>Packing group</b>	II
<b>Special precautions for user</b>	Not available.
<b>Special provisions</b>	B2, IB2, T11, TP1, TP27
<b>Packaging exceptions</b>	154
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

### IATA

<b>UN number</b>	UN2735
<b>UN proper shipping name</b>	Amines, liquid, corrosive, n.o.s.
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	8L

**Special precautions for user** Not available.

**Other information**

**Passenger and cargo aircraft** Allowed with restrictions.

**Cargo aircraft only** Allowed with restrictions.

**IMDG**

**UN number** UN2735

**UN proper shipping name** AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.

**Transport hazard class(es)**

**Class** 8

**Subsidiary risk** -

**Packing group** II

**Environmental hazards**

**Marine pollutant** No.

**EmS** F-A, S-B

**Special precautions for user** Not available.

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

**DOT**



**IATA; IMDG**



## 15. Regulatory information

### US federal regulations

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

Not regulated.

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

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

**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 regulated.

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

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

### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** No

### SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
4,4'-ISOPROPYLIDENEDIPHENOL	80-05-7	10

## 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. 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)	No
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** 07-21-2017  
**Version #** 01  
**NFPA ratings** Health: 3  
Flammability: 1  
Instability: 0  
**Disclaimer** Not available.