1. Identification

Product identifier: PENNTROWEL EPOXY PRIMER RESIN
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: 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: May cause an allergic skin reaction. Causes skin irritation.
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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISPHENOL A-(EPICHLORHYDRIN) EPOXY RESIN</td>
<td>25068-38-6</td>
<td>50 - 70</td>
<td></td>
</tr>
<tr>
<td>BUTYL GLYCIDYL ETHER</td>
<td>2426-08-6</td>
<td>20 - 35</td>
<td></td>
</tr>
</tbody>
</table>

Other components below reportable levels: 9.5239047618
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.

5. Fire-fighting measures

**Suitable extinguishing media**

**Unsuitable extinguishing media**
Not available.

**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.

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

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTYL GLYCIDYL ETHER (CAS 2426-08-6)</td>
<td>PEL</td>
<td>270 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTYL GLYCIDYL ETHER (CAS 2426-08-6)</td>
<td>TWA</td>
<td>3 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTYL GLYCIDYL ETHER (CAS 2426-08-6)</td>
<td>Ceiling</td>
<td>30 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.6 ppm</td>
</tr>
</tbody>
</table>

Biological limit values

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

Exposure guidelines

US ACGIH Threshold Limit Values: Skin designation

BUTYL GLYCIDYL ETHER (CAS 2426-08-6) 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.

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.

Skin protection

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. Sweet.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

> 230.0 °F (> 110.0 °C) Pensky-Martens 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 Nil
Vapor density Not available.
Relative density Not available.
Solubility(ies)
  Solubility (water) Not available.
Partition coefficient (n-octanol/water) Not available.
Auto-ignition temperature Not available.
Decomposition temperature Not available.
Viscosity Not available.
Other information
  Specific gravity 1.11 @25C

10. Stability and reactivity
Reactivity Not available.
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, alkalies and oxidizing agents. Amines.
Hazardous decomposition products Toxic gas. Irritants.

11. Toxicological information
Information on likely routes of exposure
  Ingestion May cause discomfort if swallowed.
  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.
Symptoms related to the physical, chemical and toxicological characteristics Upper respiratory tract irritation. Irritation of nose and throat. Irritant effects.
Information on toxicological effects
Acute toxicity Not applicable.

<table>
<thead>
<tr>
<th>Material name: PENNTROWEL EPOXY PRIMER RESIN (CAS Mixture)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong></td>
</tr>
<tr>
<td>Acute</td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
</tr>
<tr>
<td>LC50</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
**Components**

BUTYL GLYCIDYL ETHER (CAS 2426-08-6)

**Acute**

**Dermal**

LD50 Rabbit 0.788 g/kg

**Inhalation**

LC50 Mouse > 3500 mg/l, 4 Hours

Rat > 670 mg/l, 8 Hours

**Oral**

LD50 Mouse 1.53 g/kg

Rat 2.05 g/kg

**Other**

LD50 Mouse 0.7 g/kg

Rabbit 4.93 g/kg

Rat 1.14 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.

Not listed.

**Reproductive toxicity**
Not available. Not classified.

**Specific target organ toxicity**

- single exposure

Not classified.

- 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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>PENNTROWEL EPOXY PRIMER RESIN (CAS Mixture)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50 Daphnia</td>
<td>4.05 mg/l, 48 hours estimated</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50 Fish</td>
<td>2.2497 mg/l, 96 hours estimated</td>
</tr>
</tbody>
</table>

* 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)**
BUTYL GLYCIDYL ETHER 0.63

**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
Not regulated as dangerous goods.

IMDG
UN number UN3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL A-(EPICHLORHYDRIN) EPOXY RESIN)
Transport hazard class(es)
Class 9
Subsidiary risk -
 Packing group III
Environmental hazards
Marine pollutant Yes
EmS F-A, S-F
Special precautions for user Not available.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not available.

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)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>Reportable quantity</th>
<th>Threshold planning quantity, lower value</th>
<th>Threshold planning quantity, upper value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPICHLOROHYDRIN</td>
<td>106-89-8</td>
<td>100</td>
<td>1000 lbs</td>
<td></td>
</tr>
</tbody>
</table>

SARA 311/312

Hazardous chemical

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. Massachusetts RTK - Substance List
BUTYL GLICYDYL ETHER (CAS 2426-08-6)

US. New Jersey Worker and Community Right-to-Know Act
Not regulated.

US. Pennsylvania RTK - Hazardous Substances
BUTYL GLICYDYL ETHER (CAS 2426-08-6)

US. Rhode Island RTK
Not regulated.

US. Massachusetts RTK - Substance List
BUTYL GLICYDYL ETHER (CAS 2426-08-6)

US. California Proposition 65

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin
BUTYL GLICYDYL ETHER (CAS 2426-08-6) Listed: August 7, 2009

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*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 11-19-2014
Revision date 08-30-2016
Version # 03

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
Physical & Chemical Properties: Multiple Properties
Transport Information: Material Transportation Information