

1. Identification

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|--------------------------------------|---|
| Product identifier | Pennguard HP Epoxy Primer Part B |
| 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 | Flammable liquids | Category 3 |
| Health hazards | Acute toxicity, oral | Category 4 |
| | Acute toxicity, inhalation | Category 4 |
| | Serious eye damage/eye irritation | Category 2B |
| Environmental hazards | Not classified. | |
| OSHA defined hazards | Not classified. | |

Label elements


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|-------------------------|--|
| Signal word | Danger |
| Hazard statement | Harmful if swallowed. Harmful if inhaled. Causes eye irritation. Flammable liquid and vapor. |
| Prevention | Do not eat, drink or smoke when using this product. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use only outdoors or in a well-ventilated area. Avoid breathing mist or vapor. Keep container tightly closed. Wash thoroughly after handling. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/face protection. |
| Response | 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. In case of fire: Use appropriate media for extinction. Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If skin irritation occurs, seek medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Storage | Keep container tightly closed. Store locked up. Protect from sunlight. Store in a well-ventilated place. |
| 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. See section 13 of this SDS for disposal instructions. |

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| Hazard(s) not otherwise classified (HNOC) | This product may contain the following ingredients; xylene, toluene, n-hexane, cyclohexane, naphthalene, benzene and ethyl benzene. |
| Supplemental information | None. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|---------|
| HEPTAN-2-ONE | | 110-43-0 | 30 - 50 |
| 1-BUTANOL | | 71-36-3 | 1 - 10 |
| Other components below reportable levels | | | 34.4 |

Composition comments The full text for all R- and H-phrases is displayed in section 16.

4. First-aid measures

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| Inhalation | If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist. Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device. |
| Skin contact | Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If clothing sticks to the skin, do not remove. Wash contact areas with soap and water. If needed, seek medical attention. |
| 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 | Rinse mouth. DO NOT induce vomiting. Get medical attention immediately. If ingestion of a large amount does occur, call a poison control center immediately. |
| Most important symptoms/effects, acute and delayed | Irritation of eyes and mucous membranes. |
| Indication of immediate medical attention and special treatment needed | Treat symptomatically. Symptoms may be delayed. |

5. Fire-fighting measures

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| Suitable extinguishing media | Water spray, fog, CO ₂ , dry chemical, or alcohol resistant foam. |
| Unsuitable extinguishing media | Do not use a solid water stream as it may scatter and spread fire. |
| Specific hazards arising from the chemical | Do not use forced stream as this could cause fire to spread. |
| 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. Structural firefighters protective clothing will only provide limited protection. |
| Fire-fighting equipment/instructions | ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. Do not release runoff from fire control methods to sewers or waterways. |
| Specific methods | In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray. |
| General fire hazards | Flammable liquid and vapor. |

6. Accidental release measures

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|--|---|
| Personal precautions, protective equipment and emergency procedures | Eliminate all sources of ignition. Keep unnecessary personnel away. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. |
| Methods and materials for containment and cleaning up | Remove sources of ignition. For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways. Dike far ahead of spill for later disposal. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Ventilate area and avoid breathing vapors or mist. |
| Environmental precautions | Do not allow the spilled product to enter public drainage systems or open watercourses. |

7. Handling and storage

Precautions for safe handling Avoid heat, sparks, open flames and other ignition sources. Avoid breathing mist or vapor. Avoid contact with eyes and prolonged or repeated contact with skin.

Conditions for safe storage, including any incompatibilities

Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. Avoid heat, sparks, open flames and other ignition sources.

8. Exposure controls/personal protection

Occupational exposure limits

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

| Components | Type | Value |
|-----------------------------|------|----------------------|
| 1-BUTANOL (CAS 71-36-3) | PEL | 300 mg/m3 100 ppm |
| HEPTAN-2-ONE (CAS 110-43-0) | PEL | 465 mg/m3 100 ppm |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|-----------------------------|------|--------|
| 1-BUTANOL (CAS 71-36-3) | TWA | 20 ppm |
| HEPTAN-2-ONE (CAS 110-43-0) | TWA | 50 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|-----------------------------|---------|----------------------|
| 1-BUTANOL (CAS 71-36-3) | Ceiling | 150 mg/m3 50 ppm |
| HEPTAN-2-ONE (CAS 110-43-0) | TWA | 465 mg/m3 100 ppm |

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

Exposure guidelines

US - California OELs: Skin designation

1-BUTANOL (CAS 71-36-3) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

1-BUTANOL (CAS 71-36-3) Skin designation applies.

US - Tennessee OELs: Skin designation

1-BUTANOL (CAS 71-36-3) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

1-BUTANOL (CAS 71-36-3) 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 Chemical goggles and face shield are recommended.

Hand protection Use protective gloves.

Other Plastic or rubber gloves, apron and boots.

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

Thermal hazards Not available.

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. |
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Amber. |
| Odor | Pungent ketone |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |

Flash point 102.0 °F (38.9 °C) Tag Closed Cup

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 1.4 %

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 > 930.2 °F (> 499 °C)

Decomposition temperature Not available.

Viscosity Not available.

Other information

Specific gravity 0.91

VOC (Weight %) 4.22 lb/gal

10. Stability and reactivity

Reactivity Not available.

Chemical stability Stable.

Possibility of hazardous reactions Will not occur.

Conditions to avoid Heat, sparks, flames.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products Upon decomposition, this product emits oxides of sulfur, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Ingestion May be harmful if swallowed.

Inhalation May be harmful if inhaled.

Skin contact Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Not classified.

Eye contact Causes eye irritation.

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

Information on toxicological effects

Acute toxicity Harmful by inhalation. Harmful if swallowed.

| Product | Species | Test Results |
|--|---------|---------------------------|
| Pennguard HP Epoxy Primer Part B (CAS Mixture) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | 14441.748 mg/kg estimated |
| <i>Oral</i> | | |
| LD50 | Mouse | 1267.3611 mg/kg estimated |
| | Rat | 2.8993 g/kg estimated |

| Product | Species | Test Results |
|-----------------------------|---------|---------------------------|
| <i>Other</i> LD50 | Mouse | 4712.5 mg/kg estimated |
| | Rat | 1022.4274 mg/kg estimated |
| Components | Species | Test Results |
| 1-BUTANOL (CAS 71-36-3) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | 3400 mg/kg |
| <i>Inhalation</i> | | |
| LC50 | Rat | 8000 ppm, 4 Hours |
| <i>Oral</i> | | |
| LD50 | Rat | 790 mg/kg |
| <i>Other</i> | | |
| LD50 | Mouse | 377 mg/kg |
| | Rat | 310 mg/kg |
| HEPTAN-2-ONE (CAS 110-43-0) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | 12600 mg/kg |
| <i>Oral</i> | | |
| LD50 | Mouse | 730 mg/kg |
| | Rat | 1.67 g/kg |
| <i>Other</i> | | |
| LD50 | Rat | 800 mg/kg |

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

| | |
|---|---|
| Skin corrosion/irritation | Causes severe eye irritation. |
| Serious eye damage/eye irritation | Causes eye irritation. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | Not classified. Not available. |
| Skin sensitization | Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Not classified. None known. Not available. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Not available. Not classified. |
| Carcinogenicity | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |
| US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) | |
| Not listed. | |
| Reproductive toxicity | Not classified. |
| Specific target organ toxicity - single exposure | Not classified. Not available. |
| Specific target organ toxicity - repeated exposure | Not classified. Not available. |
| Aspiration hazard | Not classified. |
| Further information | Symptoms may be delayed. |

12. Ecological information

| | |
|--------------------|--|
| Ecotoxicity | Components of this product are hazardous to aquatic life. Accumulation in aquatic organisms is expected. Not expected to be harmful to aquatic organisms. Harmful to aquatic life with long lasting effects. |
|--------------------|--|

| Product | Species | Test Results |
|--|---------|-----------------------------------|
| Pennguard HP Epoxy Primer Part B (CAS Mixture) | | |
| Crustacea | EC50 | Daphnia |
| | | 23712.5 mg/l, 48 hours estimated |
| Fish | LC50 | Fish |
| | | 216.5059 mg/l, 96 hours estimated |

| Components | Species | Test Results |
|-----------------------------|---------|---|
| 1-BUTANOL (CAS 71-36-3) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (Daphnia magna) 1897 - 2072 mg/l, 48 hours |
| Fish | LC50 | Bluegill (Lepomis macrochirus) 100 - 500 mg/l, 96 hours |
| HEPTAN-2-ONE (CAS 110-43-0) | | |
| Aquatic | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 126 - 137 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-BUTANOL | 0.88 |
| HEPTAN-2-ONE | 1.98 |

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.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F

US RCRA Hazardous Waste U List: Reference

| | |
|-------------------------|------|
| 1-BUTANOL (CAS 71-36-3) | U031 |
|-------------------------|------|

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container. Recycle empty drums at an appropriate facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal. Ensure drums are tightly sealed.

14. Transport information

DOT

| | |
|-------------------------------------|---|
| UN number | UN1263 |
| UN proper shipping name | Paint Related Materials |
| Transport hazard class(es) | |
| Class | 3 |
| Subsidiary risk | - |
| Label(s) | 3 |
| Packing group | III |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | B1, IB3, T2, TP1 |
| Packaging exceptions | 150 |
| Packaging non bulk | 203 |
| Packaging bulk | 242 |

IATA

| | |
|-------------------------------------|------------------------|
| UN number | UN1263 |
| UN proper shipping name | Paint Related Material |
| Transport hazard class(es) | |
| Class | 3 |
| Subsidiary risk | - |
| Packing group | III |
| Environmental hazards | No. |
| ERG Code | 3L |
| Special precautions for user | Not available. |
| Other information | |

Passenger and cargo aircraft Allowed.

Cargo aircraft only Allowed.

IMDG

| | |
|------------------|--------|
| UN number | UN1263 |
|------------------|--------|

UN proper shipping name Paint Related Materials
Transport hazard class(es)
Class 3
Subsidiary risk -
Packing group III
Environmental hazards
Marine pollutant No.
EmS Not available.
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 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.

CERCLA/SARA Hazardous Substances - Not applicable.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

1-BUTANOL (CAS 71-36-3) 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 - Yes
 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. |
|---------------|------------|----------|
| 1-BUTANOL | 71-36-3 | 1 - 10 |

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

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.

US. Massachusetts RTK - Substance List

1-BUTANOL (CAS 71-36-3)
HEPTAN-2-ONE (CAS 110-43-0)

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

1-BUTANOL (CAS 71-36-3) 500 LBS

US. Pennsylvania RTK - Hazardous Substances

1-BUTANOL (CAS 71-36-3)
HEPTAN-2-ONE (CAS 110-43-0)

US. Rhode Island RTK

1-BUTANOL (CAS 71-36-3)

US. California Proposition 65

Not Listed.

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 05-07-2015

Revision date 01-07-2016

Version # 02

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

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, 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

Product and Company Identification: Product and Company Identification
Physical & Chemical Properties: Multiple Properties
GHS: Classification