

1. Identification

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| Product identifier | PENNTROWEL LF FILLER - SILICA |
| Other means of identification | Not available. |
| Recommended use | Not available. |
| Recommended restrictions | Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations. |

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

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|------------------------------|-----------------------------|
| Physical hazards | Not classified. |
| Health hazards | Carcinogenicity Category 1B |
| Environmental hazards | Not classified. |
| OSHA defined hazards | Not classified. |

Label elements


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| Signal word | Danger |
| Hazard statement | May cause cancer. |
| Prevention | Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. |
| Response | IF exposed or concerned: Get medical advice/attention. |
| 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 | None. |

3. Composition/information on ingredients
Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|------------------------------------|-----------------------------|-------------|---------|
| Calcined Petroleum Coke | COKE, (PETROLEUM), CALCINED | 64743-05-1 | 75 - 85 |
| BARIUM SULFATE | | 7727-43-7 | 15 - 20 |
| AMORPHOUS SILICA (RESPIRABLE DUST) | | 112926-00-8 | < 1 |

4. First-aid measures

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|---|---|
| Inhalation | Move to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. If breathing is difficult, give oxygen. Get medical attention. |
| Skin contact | In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes. |
| Eye contact | In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. Get medical attention. |
| Ingestion | Do not induce vomiting without advice from poison control center. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention. |
| Most important symptoms/effects, acute and delayed | Not available. |
| 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. Keep victim warm. Keep victim under observation. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire-fighting measures

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| Suitable extinguishing media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | Not available. |
| Specific hazards arising from the chemical | Not applicable. |
| 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 | In the event of fire, cool tanks with water spray. |
| Specific methods | Cool containers exposed to flames with water until well after the fire is out. |

6. Accidental release measures

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| Personal precautions, protective equipment and emergency procedures | Wear appropriate protective equipment and clothing during clean-up. |
| Methods and materials for containment and cleaning up | Not available. |

7. Handling and storage

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| Precautions for safe handling | Do not breathe dust. Do not get in eyes, on skin, on clothing. Use only with adequate ventilation. |
| Conditions for safe storage, including any incompatibilities | Keep container tightly closed. Keep out of reach of children. Store in a cool, dry place. Use care in handling/storage. |

8. Exposure controls/personal protection

Occupational exposure limits

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

| Components | Type | Value | Form |
|--------------------------------|------|----------------------|----------------------|
| BARIUM SULFATE (CAS 7727-43-7) | PEL | 5 mg/m ³ | Respirable fraction. |
| | | 15 mg/m ³ | Total dust. |

US. OSHA Table Z-3 (29 CFR 1910.1000)

| Components | Type | Value |
|--|------|-----------------------|
| AMORPHOUS SILICA (RESPIRABLE DUST) (CAS 112926-00-8) | TWA | 0.8 mg/m ³ |
| | | 20 mppcf |

| ACGIH Components | Type | Value | Form |
|---|-------------|--------------|---------------------|
| Calcined Petroleum Coke (CAS 64743-05-1) | TWA | 3 mg/m3 | Nuisance dust |
| | | 2 mg/m3 | Respirable dust |
| US. ACGIH Threshold Limit Values Components | Type | Value | Form |
| BARIUM SULFATE (CAS 7727-43-7) | TWA | 5 mg/m3 | Inhalable fraction. |
| US. NIOSH: Pocket Guide to Chemical Hazards Components | Type | Value | Form |
| AMORPHOUS SILICA (RESPIRABLE DUST) (CAS 112926-00-8) | TWA | 6 mg/m3 | |
| | | | |
| BARIUM SULFATE (CAS 7727-43-7) | TWA | 5 mg/m3 | Respirable. |
| | | 10 mg/m3 | Total |

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| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| Exposure guidelines | Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. |
| 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 | Goggles/face shield are recommended. |
| Hand protection | Wear protective gloves. |
| Skin protection | |
| Other | Wear appropriate clothing to prevent any possibility of skin contact with solutions containing 10% or more of this chemical. |
| 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

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|---|----------------|
| Appearance | Not available. |
| Physical state | Liquid. |
| Form | Not available. |
| Color | Gray to Black. |
| Odor | Odorless. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Flash point | Not available. |
| 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. |

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|--|---------------------------|
| Vapor pressure | Not available. |
| Vapor density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Insoluble |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 932 °F (500 °C) estimated |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Specific gravity | 0.85 estimated |

10. Stability and reactivity

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|---|---|
| Reactivity | Not available. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | Not available. |
| Conditions to avoid | None under normal conditions. |
| Incompatible materials | Strong oxidizing agents. Strong bases. |
| Hazardous decomposition products | Oxides of silicon. |

11. Toxicological information

Information on likely routes of exposure

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|---------------------|---------------------------------|
| Ingestion | Not available. |
| Inhalation | May cause cancer by inhalation. |
| Skin contact | Not available. |
| Eye contact | Harmful in contact with eyes. |

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

Information on toxicological effects

Acute toxicity Not available.

| Product | Species | Test Results |
|---|---------|---------------------------|
| PENNTROWEL LF FILLER - SILICA (CAS Mixture) | | |
| Acute | | |
| <i>Other</i> | | |
| LD50 | Rabbit | 10309.2813 g/kg estimated |

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

Skin corrosion/irritation Not available.
Serious eye damage/eye irritation Harmful in contact with eyes. None known.

Respiratory or skin sensitization

Respiratory sensitization Not available.
Skin sensitization None known.

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

Carcinogenicity Hazardous by OSHA criteria. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

IARC Monographs. Overall Evaluation of Carcinogenicity

AMORPHOUS SILICA (RESPIRABLE DUST) (CAS 112926-00-8) 3 Not classifiable as to carcinogenicity to humans.

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

Not listed.

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| Reproductive toxicity | Not classified. |
| Specific target organ toxicity - single exposure | Not available. |
| Specific target organ toxicity - repeated exposure | Not available. |
| Aspiration hazard | Not available. |
| Chronic effects | Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. |
| Further information | This product has no known adverse effect on human health. |

12. Ecological information

Ecotoxicity Not expected to be harmful to aquatic organisms.

| Product | Species | Test Results |
|---|---------|----------------------------------|
| PENNTROWEL LF FILLER - SILICA (CAS Mixture) | | |
| Crustacea | EC50 | Daphnia |
| 159.4965 mg/l, 48 hours estimated | | |
| Components | Species | Test Results |
| BARIUM SULFATE (CAS 7727-43-7) | | |
| Aquatic | | |
| Crustacea | EC50 | Tubificid worm (Tubifex tubifex) |
| 28.61 - 38.03 mg/l, 48 hours | | |

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

| | |
|--------------------------------------|----------------|
| Persistence and degradability | Not available. |
| Bioaccumulative potential | Not available. |
| Mobility in soil | Not available. |
| Other adverse effects | Not available. |

13. Disposal considerations

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|--|--|
| Disposal instructions | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | Not regulated. |
| Waste from residues / unused products | Not available. |
| Contaminated packaging | Not available. |

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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)

BARIUM SULFATE (CAS 7727-43-7) 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 - No
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

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.

US. Massachusetts RTK - Substance List

AMORPHOUS SILICA (RESPIRABLE DUST) (CAS 112926-00-8)

BARIUM SULFATE (CAS 7727-43-7)

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

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

BARIUM SULFATE (CAS 7727-43-7)

US. Rhode Island RTK

Not regulated.

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) | No |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No |
| 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 11-19-2014

Revision date 12-30-2015

Version # 03

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
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

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
Toxicological Information: Toxicological Data