SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

ARBOITHIX PE 100
PE-Fiber

CAS No.: 9002-88-4
EC No.: not relevant
INDEX No.: not relevant
REACH No.: do not require registration

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: The product is intended for professional use.
Uses advised against: not relevant

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

EP Minerals, LLC.,
9875 Gateway Dr.,
Reno, NV 89521

Telephone: (775) 824 7600
(9am to 5pm PST, Mon. to Fri.)
Telefax: (775) 824 7601
Website: www.epminerals.com

1.4. Emergency telephone number

Telephone: (775) 824 7600
(9am to 5pm PST, Mon. to Fri.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008 [CLP]: not relevant
Directive 67/548/EEC: not relevant
OSHA HCS/HazCom 2012 Final Rule & Appendices
Appendix C.4.30:
Hazard category: Combustible Dust
Signal word: Warning
Hazard statement: May form combustible dust concentrations in air

2.2. Label elements

Classification according to Regulation (EC) No. 1272/2008 [CLP]
not relevant

2.3. Other hazards

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.
In case of fire may be liberated: Carbon monoxide. Carbon dioxide.
Damage can be caused through mechanical influence of the product (e.g. sticking).
SECTION 3: Composition / information on ingredients

3.1. Substances
Substance related information
Polyethylene
CAS No.: 9002-88-4
EC No.: not relevant
INDEX No.: not relevant

3.2. Mixtures
Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-no.</th>
<th>CAS-No.</th>
<th>INDEX no.</th>
<th>REACH-no.</th>
<th>Concentration</th>
<th>Classification</th>
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Substance with a common (EC) occupational exposure limit value

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-no.</th>
<th>CAS-No.</th>
<th>INDEX no.</th>
<th>REACH-no.</th>
<th>Concentration</th>
<th>Classification</th>
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<td>not relevant</td>
<td>not relevant</td>
<td>not relevant</td>
<td>not relevant</td>
<td>not relevant</td>
</tr>
</tbody>
</table>

(Full text of H- and EUH-phrases: see section 16.)

Additional information
The substance does not require registration according to REACH.

SECTION 4: First aid measures

4.1. Description of first aid measures
General information: When in doubt or if symptoms are observed, get medical advice.
Following inhalation: Provide fresh air.
Following skin contact: After contact with skin, wash immediately with plenty of water and soap.
After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water.
In case of eye irritation consult an ophthalmologist.
After ingestion: Rinse mouth immediately and drink plenty of water.
When in doubt or if symptoms are observed, get medical advice.

Self-protection of the first aider: not relevant

4.2. Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date.
Nature of Hazard: not relevant

4.3. Indication of any immediate medical attention and special treatment needed
Notes for the doctor: Treat symptomatically
Special treatment: Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media
Unsuitable extinguishing media: High power water jet.

5.2. Special hazards arising from the substance or mixture
In case of fire may be liberated: Carbon monoxide. Carbon dioxide.
5.3. Advice for firefighters

**General information**

Danger of dust explosion.

**Special protective equipment for firefighters:**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Fire class A (Fires of solids, mainly organic nature, which normally burn down under glow forming).

---

**SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Avoid generation of dust.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

For emergency responders:

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Avoid generation of dust.

See protective measures under point 7 and 8.

6.2. Environmental precautions

No special environmental measures are necessary.

6.3. Methods and material for containment and cleaning up

Take up mechanically.

Avoid generation of dust.

6.4. Reference to other sections

Disposal: see section 13.

Personal protection equipment: see section 8

---

**SECTION 7: Handling and storage**

7.1. Precautions for safe handling

**Advices on safe handling**

Avoid generation of dust.

**Technical measures**

During filling, metering and sampling should be used if possible:

Devices with local exhaust

**Precautions against fire and explosion**

The product is: Combustible.

Danger of dust explosion.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Have fire-extinguishers in readiness before opening containers.
Additional information
Avoid generation of dust.
Recommendations for handling:
210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
240 Ground/bond container and receiving equipment.
241 Use explosion-proof electrical/ventilating/lighting/... equipment.
280 Wear protective gloves/protective clothing/eye protection/face protection.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures and storage conditions
not relevant

Packaging materials
not relevant

Requirements for storage rooms and vessels
not relevant

Hints on joint storage
not relevant

Storage class: 11 Combustible solids.

Further information on storage conditions
Protect against: Humidity
Storage temperature: not relevant
Relative air humidity (%): not relevant
Storage stability: In the closed original container maximum 2 years; open containers maximum 6 months
Maximum storage period (time): not relevant

7.3. Specific end use(s)
not relevant

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit value

<table>
<thead>
<tr>
<th>Substance:</th>
<th>CAS-No.:</th>
<th>Source:</th>
<th>Occupational exposure limit value:</th>
<th>Limitation of exposure peaks:</th>
<th>Remark:</th>
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<tbody>
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Substance with a common (EC) occupational exposure limit value

<table>
<thead>
<tr>
<th>Substance:</th>
<th>CAS-No.:</th>
<th>Source:</th>
<th>Occupational exposure limit value:</th>
<th>Limitation of exposure peaks:</th>
<th>Remark:</th>
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<tbody>
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</tbody>
</table>

DNEL-/PNEC-values

<table>
<thead>
<tr>
<th>Substance:</th>
<th>CAS-No.:</th>
<th>DNEL/DMEL</th>
<th>Industry</th>
<th>Professional</th>
<th>Consumer</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

PNEC Value

<table>
<thead>
<tr>
<th>Substance:</th>
<th>CAS-No.:</th>
<th>PNEC</th>
<th>Worker, industry</th>
<th>Worker, professional</th>
<th>Consumer</th>
</tr>
</thead>
<tbody>
<tr>
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<td>not relevant</td>
<td>not relevant</td>
<td>not relevant</td>
<td>not relevant</td>
<td>not relevant</td>
</tr>
</tbody>
</table>

Risk management measures according to used control banding approach
not relevant
Additional information
not relevant

8.2. Exposure controls

Occupational exposure controls
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

General protection and hygiene measures
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Personal protection equipment
Respiratory protection necessary at: Dust formation.

Respiratory protection
Suitable respiratory protection apparatus: Filtering Half-face mask (DIN EN 149)
Half-face mask or quarter face piece: maximum use concentration for substances with exposure limits:
P1 filter: up to a max. of 4 times the exposure limit.
P2 filter: up to a max. of 10 times the exposure limit.
P3 filter: up to a max. of 30 times the exposure limit.
Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.
If the concentration is exceeded, self-contained breathing apparatus must be used!

Hand protection
Hand protection is not required

Eye/face protection
Dust protection eye glasses.

Body protection
Body protection: not applicable.

Environmental exposure controls
See chapter 7. No additional measures necessary.

Consumer exposure controls
not relevant

Exposure Scenario
not relevant

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Physical state:</th>
<th>Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>white</td>
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</tr>
<tr>
<td>Odour:</td>
<td>odourless</td>
<td></td>
</tr>
<tr>
<td>Odour threshold:</td>
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</table>

<table>
<thead>
<tr>
<th>Safety relevant basis data</th>
<th>Unit</th>
<th>Remark</th>
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</thead>
<tbody>
<tr>
<td>Density:</td>
<td>0.95</td>
<td>g/cm³</td>
</tr>
<tr>
<td>Bulk density:</td>
<td></td>
<td>not determined</td>
</tr>
</tbody>
</table>
pH: not determined
Melting point/freezing point: not determined
Initial boiling point and boiling range: not applicable
Flash point: not determined
Flammability (solid, gas): Combustible
Explosivity: Dust explosive
- Lower explosion limit: 30 g/m³
- Upper explosion limit: 11,000 g/m³
Ignition temperature: not relevant
Decomposition temperature: not determined
Oxidizing potential: not oxidizing
Vapour pressure: not applicable
Vapour density: not applicable
Evaporation rate: not applicable
Water solubility: insoluble
Fat solubility: insoluble
Soluble in: not relevant
Partition coefficient: n-octanol/water: not applicable
Viscosity: not applicable
Solvent separation test: not relevant
Solvent content: not relevant

9.2. Other information
not relevant

SECTION 10: Stability and reactivity

10.1. Reactivity
not relevant

10.2. Chemical stability
not relevant

10.3. Possibility of hazardous reactions
not relevant

10.4. Conditions to avoid
Keep away from sources of ignition. - No smoking.

10.5. Incompatible materials
not relevant

10.6. Hazardous decomposition products
not relevant

Additional information
not relevant

SECTION 11: Toxicological information

11.1. Information on toxicological effects
not relevant
Acute toxicity

<table>
<thead>
<tr>
<th>Substance:</th>
<th>CAS-No.:</th>
<th>Toxicological Information</th>
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<tbody>
<tr>
<td>not relevant</td>
<td>not relevant</td>
<td>not relevant</td>
</tr>
</tbody>
</table>

Specific symptoms in laboratory animals
not relevant

Irritation and etching
  Irritant effect on the skin
    Not an irritant
  Irritant effect on the eye
    Not an irritant
  Irritant effect on the respiratory tract
    Not an irritant
  Caustic effect
    not corrosive

Sensitization
not sensitising

Repeated dose toxicity (sub-acute, sub-chronic, chronic)
not relevant

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  Carcinogenicity
    No indication of human carcinogenicity
  Germ cell mutagenicity
    No indications of human germ cell mutagenicity exist
  Reproductive toxicity
    No indications of human reproductive toxicity exist

General remarks
Damage can be caused through mechanical influence of the product (e.g. sticking).

Practical experience/human evidence
not relevant

Other observations
not relevant

Other information
not relevant

SECTION 12: Ecological information

12.1. Toxicity
not relevant

Eco toxicity

<table>
<thead>
<tr>
<th>Substance:</th>
<th>CAS-No.:</th>
<th>Eco toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>not relevant</td>
<td>not relevant</td>
<td>not relevant</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
not persistent

12.3. Bio accumulative potential
No indication of bioaccumulation potential
12.4. Mobility in soil
not relevant

12.5. Results of PBT and vPvB assessment
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects
not relevant

Further ecological information
not relevant

Further details
not relevant

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Appropriate disposal/Product
Dispose of waste according to applicable legislation.

Appropriate disposal / Package
Completely emptied packages can be recycled.

List of proposed waste codes/waste designations in accordance with EWC

Waste code product: 07 02 99 - wastes not otherwise specified
Waste code packaging: 15 01 06 - mixed packaging

Remark
The allocation of waste identity numbers/waste descriptions must be carried out according to the EWC, specific to the industry and process.

SECTION 14: Transport information

14.1. UN number
not relevant

14.2. UN proper shipping name
not relevant

14.3. Transport hazard class(es)
not relevant

14.4. Packing group
not relevant

14.5. Environmental hazards
not relevant

14.6. Special precautions for user
Land transport (ADR/RID)
Remark: No dangerous good in sense of this transport regulation
Sea transport (IMDG)
Remark: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI / IATA-DGR)
Remark: No dangerous good in sense of this transport regulation.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Remark: not relevant

SECTION 15: Regulatory information

Labeling
Hazardous component(s) for labelling
not relevant

Special labelling of particular preparations
not relevant

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU legislation
Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline)
not relevant

Regulation (EC) No 2037/2000 concerning materials, which cause damage to the ozone layer
not relevant

Regulation (EC) No. 648/2004 (Detergents regulation)
not relevant

National regulations
Observe in addition any national regulations!

Restrictions of occupation
not relevant

Storage class
11 Combustible solids

Water hazard class (WGK)
not a water pollutant (nwg)

Other regulations, restrictions and prohibition regulations
not relevant

15.2. Chemical Safety Assessment
For this substance a chemical safety assessment has not been carried out

SECTION 16: Other information

Relevant H- and EUH-phrases (Number and full text)
not relevant

Training advice
not relevant
Recommended restrictions of use
not relevant

Further remarks
The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge.
The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal.
The information cannot be transferred to other products.
In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Documentation of changes
Data changed compared with the previous version

Key literature references and sources for data
Data arise from reference works and literature
GESTIS- substances data base
Regulation (EC) 1272/2008 (CLP)

Abbreviations and acronyms
EWC = European Waste Catalogue