Material Safety Data Sheet - MSDS

According to Australian Safety & Compensation Council (ASCC)

1. Product and Company Information

1.1. Product identifier:

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Continuous Basalt Fiber Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trademark:</td>
<td>Basfiber®</td>
</tr>
<tr>
<td>Product Description:</td>
<td>Article</td>
</tr>
<tr>
<td>Other means of identification:</td>
<td></td>
</tr>
<tr>
<td>Product Family:</td>
<td>Product Name:</td>
</tr>
<tr>
<td>Roving:</td>
<td>Basalt Continuous Fiber (BCF), High-Performance Basalt Continuous Fiber (HBCF), Spray-Up Roving, Assembled Roving, Direct Roving.</td>
</tr>
<tr>
<td>Chopped Strand:</td>
<td>Basalt Chopped Strand (BCS), Dry Chopped Strand, Wet Chopped Strand;</td>
</tr>
<tr>
<td>Twisted Yarn:</td>
<td>Basalt Twisted Yarn (BTY)</td>
</tr>
</tbody>
</table>

1.2. Relevant Identified Uses Of The Article And Uses Advised Against:

| Relevant identified uses: | Industrial applications. |
| Uses advised against:     | no data. |

1.3. Details Of The Supplier Of The Safety Data Sheet:

<table>
<thead>
<tr>
<th>Manufacturer:</th>
<th>Kamenny Vek LLC, P.O. Box 370, 141980 Dubna, Moscow region, Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone:</td>
<td>+7-49621-23370 (Operator) Fax: +7-49621-25051</td>
</tr>
<tr>
<td>Supplier/Distributor:</td>
<td>Basalt Fiber Tech Pty. Ltd. (ACN 168 486 146)</td>
</tr>
<tr>
<td>85 Atherton Road, Oakleigh, Vic. 3166 AUSTRALIA</td>
<td></td>
</tr>
<tr>
<td>Phone:</td>
<td>+61 407 153 818</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:info@basaltft.com">info@basaltft.com</a></td>
</tr>
</tbody>
</table>

Emergency Contact  
Phone +61 407 153 818

2. Hazards identification:

2.1. Classification of the article

Continuous basalt fiber products are articles. Therefore they are not classified using GHS criteria, or by OSHA or EU legislation.

2.2. Label elements

Continuous basalt fiber products are articles. Therefore, pictograms are not applied for our product labels.

2.3. Other hazards

Precautionary statement: Increased mechanical stress of the basalt products may generate dust and airborne fibers, which may cause discomfort. At skin contact, skin irritations are possible.

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substance/mixture:</th>
<th>Article</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Content, Wt. %</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basalt Continuous filament</td>
<td>&gt;99</td>
<td>65997-17-3</td>
</tr>
<tr>
<td>Organic sizing</td>
<td>&lt;1</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Basalt fiber may be considered as a specific type of glass fiber with particular composition of oxides, thus CAS number for basalt fiber is the same as for glass fiber: 65997-17-3 (Fiber glass wool, GLASS fibre; GLASS WOOL; LIME GLASS; fiberglass; fibreglass; GLASS BEADS; GLASS BALLS; Glass Fiber; GLASS POWDER).

The sizings are multicomponent chemical systems. They don’t pose any hazards and risks for workers because under normal conditions they release only minute or trace amounts of hazardous chemical that don’t exceed the limits of allowable concentration. However it’s recommended to take all possible safety measures, specified in Section 8.3

4. First-Aid Measures

4.1. Description of first aid measures

General notes: Providing instructions for use are complied with, there is no need for First-Aid. Please note the information disclosed in points 7 and 8.
Inhalation: Normally not applicable. If necessary, take persons out in the open that they get some fresh air.

Skin contact: Normally not applicable. If necessary, remove mechanically.

Eye contact: Normally not applicable. If necessary, rinse with water for several minutes.

Ingestion: Normally not applicable. If necessary, wash mouth with water.

4.2 Most important symptoms and effects, both acute and delayed
Dusts from continuous basalt fiber products may cause temporary mechanical irritation.

4.3 Indication of any immediate medical attention and special treatment needed
Seek medical attention if irritation persists.

5. Firefighting measures
Basalt fiber is non-flammable and non-combustible.

5.1 Extinguishing media:
Suitable extinguishing media: Any of extinguishing agents, including water, carbon dioxide gas, foam, dry chemicals and powder are effective. Select an extinguishing agent depending on surrounding fire and circumstances (source of fire, etc.).

Unsuitable extinguishing media: None known

5.2 Special Hazards Arising From The Substance Or Mixture
Hazardous combustion products: Basalt fiber will not burn, but smoking of the product may occur at approximately 200 - 260 °C due to decomposition of sizing. Sizings may decompose in a fire situation and release carbon monoxide, carbon dioxide, water and minute amounts of partial sizing decomposition products.

5.3 Advice for firefighting:
Fiberglass itself will not support combustion, but in a sustained fire, proper protection against products of combustion from the fuel and sizing must be worn. In addition all normal precautions for fire-fighters should be observed.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:
If necessary, wear a safety mask, safety gloves and safety goggles.

6.2 Environmental precautions:
Basalt is generally considered to be an inert solid waste. In case of release no special environmental precautions required.

6.3 Methods and material for containment and cleaning up:
Absorb by mechanical means and dispose of according to Section 13. Avoid development of dust.

6.4 Reference to other sections:
For appropriate PPE see Section 8.
For waste disposal information see Section 13.

7. Handling and storage

7.1 Precautions for safe handling:
Increased mechanical stress of the basalt fiber may generate dust and airborne fibers, which may cause discomfort. Availability of a local suction is advised. The general hygiene rules and measures applying for the handling of chemicals must be employed. See also section 8.

7.2 Conditions for safe storage, including any incompatibilities:
Storage at room temperature and dryly. Protect against humidity. Storage rooms must be well ventilated. Do not store product in passage ways and staircases; also do always store it in original packing which should be intact.

7.3 Specific end use(s)
Recommendations: Not available.

8. Exposure controls/personal protection

8.1 Control parameters
The fibers processed in our products are uniform and are not subject to EC Guideline 97/69/EC. Furthermore, our products are not considered carcinogenic according to EC Guideline 1999/45/EC and TRGS 220 (Germany). The basalt fibers processed in our products are produced according to a defined process and have a nominal diameter of 10 - 22 micron.
Manmade mineral fibers categorized in appendix 7 HazMat Ordinance or TRGS 521 are subject to a TRK value of 250,000 fibers/m³ according to TRGS 900.

8.2. Exposure controls
Appropriate engineering controls
No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Availability of a local suction is advised.

Personal Protective Equipment (PPE)
Respiratory protection: At elevated airborne fiber and dust levels, we recommend to use a respiratory equipment (dust mask with fine filter according to EN 143), Filter P1 (EN 141).
Eye protection: In case of airborne fibers and dust, we recommend to wear safety glasses (EN 166).
Hand protection: We recommend safety gloves to avoid possible skin irritation (leather or cotton gloves).
Body protection: Long-sleeved safety clothing as well as normal personnel protective equipment (e.g. safety boots EN 344).
General protection and hygiene: Before breaks and after the end of the work day, wash hands thoroughly. In case of sensitive skin, apply a rich, protective hand lotion/cream. To protect against skin irritation, avoid wearing tight-fitting garments.

9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Shape/State of aggregation:</th>
<th>Solid</th>
<th>Color:</th>
<th>Dark-olive</th>
<th>Odor:</th>
<th>inodorous</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH-Value (2g in 100 ml of water, 20 °C):</td>
<td>N/A(DIN 54276)</td>
<td></td>
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<tr>
<td>Boiling point/boiling range:</td>
<td>N/A</td>
<td></td>
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<tr>
<td>Melting point/melting range:</td>
<td>approx. 1050 °C (softening point of basalt)</td>
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<tr>
<td>Flash point:</td>
<td>N/A</td>
<td></td>
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<tr>
<td>Flammability:</td>
<td>The products are non-combustible.</td>
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<td>Ignition temperature:</td>
<td>N/A</td>
<td></td>
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<td>Self-ignition:</td>
<td>N/A</td>
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<td>Danger of explosion:</td>
<td>N/A</td>
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<td>Explosion limits lower:</td>
<td>N/A</td>
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<tr>
<td>Fire promoting properties:</td>
<td>Cannot be applied according to the laws of the European Community.</td>
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<tr>
<td>Vapor pressure:</td>
<td>N/A</td>
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<tr>
<td>Density, expressed as bulk density (20 °C):</td>
<td>2.67 g/cm³ (raw basalt)</td>
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<tr>
<td>Solubility in water:</td>
<td>Insoluble</td>
<td></td>
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<tr>
<td>Solubility in fat:</td>
<td>Insoluble</td>
<td></td>
<td></td>
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<tr>
<td>Distribution coefficient n-Octanol/water:</td>
<td>N/A</td>
<td></td>
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</tbody>
</table>

9.2. Other:
No additional information.

10. Stability and reactivity

10.1. Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2. Chemical stability
The product is stable.

10.3. Possibility of hazardous reactions
Under normal conditions of storage and use, hazardous reactions will not occur.

10.4. Conditions to avoid
When exposed to high temperatures may produce decomposition products (Section 5). Refer to protective measures listed in sections 7 and 8.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
See Section 5.

11. Toxicology data

11.1. Information on toxicological effects

| Acute toxicity, e.g. LD50: | no data available |
| Specific symptoms of animal tests: | no data available |
| Primary irritant/caustic action: | no data available |
| Sensitization: | no data available |
Effects after repeated or prolonged exposure: (sub-acute to chronic toxicity)  
no data available

Carcinogenic risks:  
no, 97/69/EC

Genotype and reproduction risks:  
no data available

Other:  
See item 8.2

12. Ecological information

12.1. Toxicity:  
no data available

12.2. Persistence and degradability:  
no data available

12.3. Bio accumulative potential:  
no data available

12.4. Mobility in soil:  
no data available

12.5. Results of PBT and vPvB assessment:  
no data available

12.6. Other adverse effects:  
No known significant effects or critical hazards.

13. Disposal considerations

13.1. Waste treatment methods:

Disposal Instructions: 
Disposal of waste material according to Local, State, Federal, and Provincial Environmental Regulations

Hazardous waste: 
Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

Packaging

Methods of disposal: 
The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill only be considered when recycling is not feasible.

14. Transport (national/international)

14.1. UN number:  
None.

14.2. UN proper shipping name:  
Not Regulated.

14.3. Transport hazard class(es):  
None.

14.4. Packing group:  
-

14.5. Environmental hazards:  
No.

14.6. Special precautions for user:  
Not available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:  
Not available.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Substances of very high concern (From Candidate List)
Basfiber® products don’t contain SVHC’s with a weight percentage of > 0.1%

15.2. Chemical safety assessment:  
No Chemical Safety Assessment has been carried out.

16. Other

Further information:
N/A = not applicable

Disclaimer:
Data quoted in this Safety Data Sheet relate exclusively to the basalt product described and not to a combination of this product with any other kind of substance, a different preparation, or a different material resp. process. The data describes issues relevant to safety according to the best of our knowledge as it is to date and are intended to protect human beings and the environment. They do not represent quality characteristics nor may they be construed as a release of responsibility when handling basalt products nor from compliance with existing legal regulations and obligations. The data address wholesalers and are not intended for private users.