SAFETY DATA SHEET
Glass Blowing Mineral Wool

1. Identification

Product identifier

Product name: Glass Blowing Mineral Wool
Product number: KI_DP_109 (GHS)
Synonyms; trade names: Jet Stream Ultra, EcoFill Wx, EXPERT Blowing Insulation, Manufactured Housing Blowing Insulation, Jet Stream® MAX, AtticGuard, Guardian, Guardian by Knauf Insulation

Revision date: 02/22/2017

Recommended use of the chemical and restrictions on use

Application: Thermal and/or acoustic insulation for use in technical applications, industrial applications and in building construction.
Uses advised against: None known.

Details of the supplier of the safety data sheet

Supplier: Knauf Insulation, Inc.
One Knauf Drive
Shelbyville
IN 46176-1496
www.knaufinsulation.us
sds@knaufinsulation.com
Tel: 800 825 4434

Region: United States, Central & South America
Emergency telephone number

Emergency telephone: 24hrs: Chemtrec Tel: 800 424 9300
Glass Blowing Mineral Wool

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status  This product is regulated as a nuisance dust under OSHA criteria.

Physical hazards  Not Classified

Health hazards  Not Classified

Environmental hazards  Not Classified

Label elements

Hazard statements  NC Not Classified

Contains  None.

Hazard pictogram  None.

Signal word  None.

Precautionary statements  None.

Supplemental label information  None.

The following sentences and pictograms are printed on packaging:
The mechanical effect of fibers in contact with skin may cause temporary itching.

Other hazards

Physical Hazards  None.

Health Hazards  Mechanical irritation of the skin, eyes and upper respiratory system.

Environmental Hazards  None.

Main symptoms  Contact with skin, eyes and upper respiratory system may cause mechanical irritation.

Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.
# Glass Blowing Mineral Wool

## 3. Composition/Information on ingredients

### Mixtures

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biosoluble glass mineral wool</td>
<td>98 - 99%</td>
</tr>
<tr>
<td>CAS number: —</td>
<td></td>
</tr>
<tr>
<td>Ingredient notes: (1)(2)</td>
<td></td>
</tr>
</tbody>
</table>

**Classification**
Not Classified

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-dust, antistatic and hydrophobic</td>
<td>1 - 2%</td>
</tr>
<tr>
<td>CAS number: —</td>
<td></td>
</tr>
</tbody>
</table>

**Classification**
Not Classified

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible colorant</td>
<td>&lt;0.5% w/w</td>
</tr>
<tr>
<td>CAS number: —</td>
<td></td>
</tr>
</tbody>
</table>

**Classification**
Not Classified

The full text for all hazard statements is displayed in Section 16.

### Ingredient notes

(1) Man made vitreous (silicate) fibers with random orientation with alkaline oxide and alkali earth oxide (Na₂O+K₂O+CaO+MgO+BaO) content greater than 18% by weight meeting the requirements of Note Q of regulation n° 1272/2008 and therefore not classified carcinogenicity.

(2) All Knauf Insulation products covered by this SDS are independently certified by EUCEB to be manufactured using biosoluble glass formulations and thus exempt from labeling under NTP or California Prop 65 requirements.

Specific chemical identity and/or exact percent concentration is withheld as trade secret.
Glass Blowing Mineral Wool

4. First-aid measures

Description of first aid measures

**General information**
Show this Safety Data Sheet to the medical professional in attendance. If symptoms occur, follow first aid measures as appropriate.

**Notes to Physician:**
No specific recommendations.

**Inhalation**
Remove from exposure. Rinse the throat and clear dust from airways.

**Ingestion**
Drink plenty of water if accidentally ingested.

**Skin Contact**
If mechanical irritation occurs, remove contaminated clothing and wash skin gently with cold water and soap.

**Eye contact**
Rinse abundantly with water for at least 15 minutes.

**Most important symptoms and effects, both acute and delayed**

**General information**
Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.

**Indication of immediate medical attention and special treatment needed**

**General information**
If any adverse reaction or discomfort continues from any of the above exposures, seek professional medical advice.

**Specific treatments**
No specific recommendations.

5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**
Water, foam, carbon dioxide (CO2), and dry powder.

**Special hazards arising from the substance or mixture**

**General information**
Products do not pose a fire hazard in use; however, some packaging materials or facings may be combustible. Products of combustion from product and packaging - carbon dioxide, carbon monoxide and some trace gases such as ammonia, nitrogen oxides and volatile organic substances.

**Advice for firefighters**

**General information**
In large fires in poorly ventilated areas involving packaging materials respiratory protection / breathing apparatus may be required.
Glass Blowing Mineral Wool

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Minimize direct contact with skin in order to prevent mechanical itching. In dusty environments, use suitable respiratory protection such as 3M 8210, N95 or equivalent. Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments. Where possible, use natural ventilation during installation in order to minimize dust levels.

After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching. Dispose of surplus product in accordance with local regulations.

Use personal protection recommended in Section 8 of the SDS.

Environmental precautions

Not relevant.

Methods and material for containment and cleaning up

Methods for cleaning up

In dusty environments, use vacuum equipment where possible to minimize dust levels.

Reference to other sections

For personal protection, see Section 8. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions

Assure proper respiratory protection if dust potential exceeds PEL/TLV.

Conditions for safe storage, including any incompatibilities

Storage precautions

To ensure optimum product performance; when packaging is removed or opened; products should be stored inside or covered to protect them from ingress of rain water or snow. Storage arrangements should ensure stability of stacked products and use on a first in first out basis (FIFO) is recommended.

Specific end use(s)

Thermal and/or acoustic insulation for use in technical applications, industrial applications and in building construction.
Glass Blowing Mineral Wool

8. Exposure Controls/personal protection

Control parameters

**Occupational exposure limits**

**Biosoluble glass mineral wool**

Long-term exposure limit (8-hour TWA): ACGIH, (Notes: (A3)) 1 f/cc  Glass wool fibers
Long-term exposure limit (8-hour TWA): NIOSH 5 mg/m³  Mineral wool fiber, total particulate
Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³  Particulates not otherwise regulated (PNOR), respirable fraction
Long-term exposure limit (8-hour TWA): OSHA 15 mg/m³  Particulates not otherwise regulated (PNOR), total dust

ACGIH = American Conference of Governmental Industrial Hygienists.
OSHA = Occupational Safety and Health Administration.
NIOSH = The National Institute for Occupational Safety and Health.

**Ingredient comments**

(A3) - Fibers longer than 5 μm; diameter less than 3 μm; aspect ratio greater than 5:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective) phase contrast illumination.

Biosoluble glass mineral wool - See section 3.

**Exposure controls**

- **Appropriate engineering controls**: Maintain sufficient mechanical or natural ventilation to assure fiber concentrations remain below PEL/TLV. Use local exhaust if necessary. Power equipment should be equipped with properly designed dust collection devices.
- **Eye/face protection**: Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments.
- **Other skin and body protection**: Minimize direct contact with skin in order to prevent mechanical itching.
- **Hygiene measures**: After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching.
- **Respiratory protection**: In dusty environments, use suitable respiratory protection.
- **Environmental exposure controls**: Not relevant.

9. Physical and Chemical Properties

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Solid, Glass mineral wool fibers in polyethylene bags</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>White, Grey, Blue.</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Initial boiling point and range</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not relevant.</td>
</tr>
</tbody>
</table>
Glass Blowing Mineral Wool

Upper/lower flammability or explosive limits
Not relevant.

Vapor pressure
Not relevant.

Vapor density
Not relevant.

Pack density
\( \approx 161.4 \text{ kg/m}^3 \)

Solubility(ies)
Generally chemically inert and insoluble in water.

Partition coefficient
Not relevant.

Auto-ignition temperature
Not relevant.

Decomposition Temperature
Not relevant.

Viscosity
Not relevant.

Explosive properties
Not relevant.

Oxidizing properties
Not relevant.

Devitrification temperature
1832°F

Softening temperature
1112°F

Nominal diameter of fibers
2 - 5 μm

Length weight geometric mean diameter less 2 standard errors
< 6 μm

Orientation of fibers
Random

10. Stability and reactivity

Reactivity
None.

Stability
Stable in normal conditions of use.

Possibility of hazardous reactions
None.

Conditions to avoid
None.

Materials to avoid
Hydrofluoric acid will react with and dissolve glass.

Hazardous decomposition products
None in normal conditions of use.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral
Notes (oral LD₅₀)
No data were identified for the product as a whole. Data are for constituents:
Biosoluble glass mineral wool - Not applicable.
Anti-dust, antistatic and hydrophobic. - Not applicable.
Possible colorant - Not applicable.

Acute toxicity - dermal
Glass Blowing Mineral Wool

Notes (dermal LD₅₀)
No data were identified for the product as a whole. Data are for constituents:
Biosoluble glass mineral wool - Not applicable.
Anti-dust, antistatic and hydrophobic. - Not applicable.
Possible colorant - Not applicable.

Acute toxicity - inhalation
Notes (inhalation LC₅₀)
No data were identified for the product as a whole. Data are for constituents:
Biosoluble glass mineral wool - Not applicable.
Anti-dust, antistatic and hydrophobic. - Not applicable.
Possible colorant - Not applicable.

Skin corrosion/irritation
May cause mechanical irritation to skin.

Serious eye damage/irritation
May cause mechanical irritation to eyes.

Respiratory sensitization
No data were identified for this product or its constituents.

Skin sensitization
No data were identified for this product or its constituents.

Germ cell mutagenicity
No data were identified for this product or its constituents.

Genotoxicity - in vitro
No data were identified for this product or its constituents.

Genotoxicity - in vivo
No data were identified for this product or its constituents.

Carcinogenicity
Results from a biopersistence test by intratracheal instillation has shown that fibers in this product longer than 20 μm have a weighted half-life less than 40 days, thus this product is not classified as a carcinogen. None of the components of this product are listed as a carcinogen by OSHA, IARC or NTP.

Reproductive toxicity
Reproductive toxicity - fertility
No data available for this product or its constituents.

Reproductive toxicity - development
No data available for this product or its constituents.

Specific target organ toxicity - single exposure
STOT - single exposure
No data were identified for this product or its constituents.

Specific target organ toxicity - repeated exposure
STOT - repeated exposure
No data were identified for this product or its constituents.

Aspiration hazard
Not relevant.

Inhalation
Mechanical irritation to upper respiratory tract.

Ingestion
Non-hazardous when ingested.

Skin Contact
Mechanical irritation to skin.

Eye contact
Mechanical irritation to eyes.

Medical Symptoms
Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.
Glass Blowing Mineral Wool

12. Ecological Information

**Toxicity**
This product is not ecotoxic to air, water or soil, by composition.

**Persistence and degradability**
Inert inorganic product - Anti-dust, antistatic and hydrophobic. 1 - 2% Organic Content.

**Bioaccumulative potential**
Will not bioaccumulate.

**Mobility in soil**
Not considered mobile. Less than 1% leachable organic carbon if landfilled.

**Other adverse effects**
None known.

13. Disposal considerations

**Waste treatment methods**
Dispose of in accordance with all applicable regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**Disposal methods**
This product is not regulated under RCRA Hazardous Waste Regulations. May be disposed in landfill. If unsure, contact the local office of the USEPA, your local public health department or the local landfill regulators.

14. Transport information

**General**
The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

**UN Number**
Not applicable.

**UN proper shipping name**
Not applicable.

**Transport hazard class(es)**
No transport warning sign required.

**Packing group**
Not applicable.

**Environmental hazards**

**Environmentally Hazardous Substance**
No.

**Special precautions for user**
Not applicable.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable.
15. Regulatory information

Regulatory Status

This product is regulated as a nuisance dust under OSHA criteria. In accordance with industry practice, Knauf Insulation has decided to continue to provide its customers with the appropriate information for the purpose of assuring safe handling and use of mineral wool throughout the product life.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

Not regulated.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Not regulated.

SARA 313 Emission Reporting

Not listed.

SARA (311/312) Hazard Categories

Not regulated.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

This product is exempt from labeling requirements under this Act.

Inventories

US - TSCA

All the ingredients are listed or exempt.

16. Other information

Abbreviations and acronyms used in the safety data sheet

CAS: Chemical Abstracts Service.
IARC: International Agency for Research on Cancer.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
NIOSH: The National Institute for Occupational Safety and Health.
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic substance.
PEL: Permissible Exposure Limit.
SARA: Superfund Amendments and Reauthorization Act.
TLV: Threshold Limit Value.
TSCA: Toxic Substances Control Act.
USEPA: United States Environmental Protection Agency.
vPvB: Very Persistent and Very Bioaccumulative.

General information

All products manufactured by Knauf Insulation are made of non-classified fibers and are certified by EUCEB. Products meeting EUCEB certification requirements can be recognised by the EUCEB logo printed on the packaging.

Further information can be obtained from:
www.euceb.org  www.knaufinsulation.com

Revision comments

1 [USA, MX]
Glass Blowing Mineral Wool

Revision date: 2/22/2017
Revision: 2.1
Supersedes date: 9/28/2016
SDS No.: 4664

Other information: In 2001, the International Agency for Research on Cancer (IARC) reclassified glass mineral wool fibres from Group 2B (possibly carcinogenic) to Group 3 «agent which cannot be classified as for their carcinogenicity to humans». (See Monograph Vol 81, http://monographs.iarc.fr/)

This Safety Data Sheet / Product Data Sheet does not constitute a workplace assessment. Information contained in this document represents the state of our knowledge regarding this product as of the date of issue of the document. Attention of users is drawn to possible risks taken when the product is used for other applications than the ones it has been designed for.