# SAFETY DATA SHEET
## Earthwool® Glasswool

### SECTION 1: Identification: Product identifier and chemical identity

<table>
<thead>
<tr>
<th>Product identifier</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product name</strong></td>
<td>Earthwool® Glasswool</td>
</tr>
<tr>
<td><strong>Product No.</strong></td>
<td>KI_DP_101</td>
</tr>
<tr>
<td><strong>Synonyms; trade names</strong></td>
<td>Earthwool®, Space Blanket®, Soffit Liner Board, Roof Rolls, Climacoustic™</td>
</tr>
<tr>
<td><strong>Revision date</strong></td>
<td>11-11-2016</td>
</tr>
</tbody>
</table>

**Relevant identified uses of the substance or mixture and uses advised against**

<table>
<thead>
<tr>
<th><strong>Application</strong></th>
<th>Thermal and/or acoustic insulation for use in technical applications, industrial applications and in building construction.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Uses advised against</strong></td>
<td>None known.</td>
</tr>
</tbody>
</table>

**Details of the supplier of the safety data sheet**

<table>
<thead>
<tr>
<th><strong>Supplier</strong></th>
<th>Knauf Insulation Pty Ltd</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unit 1, 44 Borthwick Avenue</td>
</tr>
<tr>
<td></td>
<td>Murarrie</td>
</tr>
<tr>
<td></td>
<td>QLD 4170</td>
</tr>
<tr>
<td></td>
<td>Australia</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.knaufinsulation.com.au">www.knaufinsulation.com.au</a></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:sds@knaufinsulation.com">sds@knaufinsulation.com</a></td>
</tr>
<tr>
<td></td>
<td>Tel: +61 7 3393 7300</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Region</strong></th>
<th>Australia</th>
</tr>
</thead>
</table>

**Emergency telephone number**

<table>
<thead>
<tr>
<th><strong>Emergency telephone</strong></th>
<th>Tel: +61 7 3393 7300</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Monday - Friday - 08:00 hrs - 17:00 hrs)</td>
</tr>
<tr>
<td></td>
<td>(Australian Eastern Standard Time - AEST (UTC+10))</td>
</tr>
</tbody>
</table>
**Earthwool® Glasswool**

### SECTION 2: Hazard(s) identification

<table>
<thead>
<tr>
<th>Classification of the substance or mixture</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical hazards</td>
<td>Not Classified</td>
</tr>
<tr>
<td>Health hazards</td>
<td>Not Classified</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Not Classified</td>
</tr>
</tbody>
</table>

- Classification according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) 3rd Rev. Ed.

**Classification according to GHS**

The product is not classified.

**Label elements**

<table>
<thead>
<tr>
<th>Hazard statements</th>
<th>NC Not Classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains</td>
<td>None.</td>
</tr>
<tr>
<td>Hazard pictogram</td>
<td>None.</td>
</tr>
<tr>
<td>Signal word</td>
<td>None.</td>
</tr>
<tr>
<td>Precautionary statements</td>
<td>None.</td>
</tr>
<tr>
<td>Supplemental label information</td>
<td>None.</td>
</tr>
</tbody>
</table>
Earthwool® Glasswool

Product handling precautions for encapsulated products
To prevent fires, please keep away from open flames, welding sparks, and other fire sources. Insulation must not be laid over electric cables. Carefully, lift electric cables and place above the insulation so they do not overheat.

For ceiling luminaires other than S-shaped ceilings, provide a predetermined distance between the glass wool insulation.

Before handling for construction, make sure to wear long sleeves with the cuffs closed tightly. Make sure to wear dust mask, hat or helmet, protective gloves, and protective glasses.

When cutting manually by a cutter, be careful so that dust does not scatter.

Make sure to place left over glass wool into a bag, so dust does not become scattered. For disposal of industrial waste, please use a supplier which is authorized to handle these types of waste.

Please provide a moisture barrier on the indoor side.

Provide an air layer on the outdoor side.

When storing the product please use some type of underlay, and also do not place heavy objects on top of the product.

Make sure the product does not become wet. If the product does become wet replace with new insulation.

When thinking about using the product for other applications, please consult first, by visiting our website www.knaufinsulation.com.au

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 generally considered to be a nuisance dust.
SECTION 3: Composition and information on ingredients

<table>
<thead>
<tr>
<th>Mixtures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Biosoluble glass mineral wool</td>
<td>87 - 100%</td>
</tr>
<tr>
<td>CAS number: —</td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td>Not Classified</td>
</tr>
<tr>
<td>Ingredient notes: (1)</td>
<td></td>
</tr>
<tr>
<td>Thermo set, inert polymer bonding agent derived from plant starches</td>
<td>0 - 13%</td>
</tr>
<tr>
<td>CAS number: —</td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td>Not Classified</td>
</tr>
</tbody>
</table>

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

Ingredient notes (1) Man made vitreous (silicate) fibres 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.

Other information Possible facing or encapsulation materials: glass veil, or polyester mat or aluminium or Kraft paper or encapsulated in low density polyethylene (LDPE) and metallised LDPE film.

SECTION 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 None specific

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 generally considered to be a nuisance dust.

Indication of any 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.
Earthwool® Glasswool

SECTION 5: Firefighting measures

Extinguishing media

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

Unsuitable extinguishing media
None specified.

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.

Hazchem code
Not applicable.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Minimise 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 minimise 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.

Emergency procedures
Use personal protection recommended in Section 8 of the SDS.

Environmental precautions

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 minimise dust levels.

Reference to other sections

Reference to other sections
For personal protection, see Section 8. For waste disposal, see Section 13.
Earthwool® Glasswool

SECTION 7: Handling and storage, including how the chemical may be safely used

Precautions for safe handling

Usage precautions
Assure proper respiratory protection if dust potential exceeds TWA/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. Hydrofluoric acid will react with and dissolve glass.

Specific end use(s)
Thermal and/or acoustic insulation for use in technical applications, industrial applications and in building construction.

SECTION 8: Exposure controls and personal protection

Control parameters
Exposure controls
Maintain sufficient mechanical or natural ventilation to assure fibre concentrations remain below TWA/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
Minimise 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.

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
Biosoluble glass mineral wool

Long-term exposure limit (8-hour TWA): NOHSC 2 mg/m3 Low Biopersistence Man-Made Vitreous (Silicate) Fibres, inhalable dust
Long-term exposure limit (8-hour TWA): ACGIH, TLV 15 mg/m3 respirable dust
Long-term exposure limit (8-hour TWA): ACGIH, TLV 1 f/mL total dust (Note (A3))
ACGIH = American Conference of Governmental Industrial Hygienists.

Environmental exposure controls
Not relevant.

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# Earthwool® Glasswool

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Solid.</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>Brown.</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Odour 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>
<tr>
<td><strong>Flammability Limit - Lower(%)</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>7 - 96 kg/m³</td>
</tr>
<tr>
<td><strong>Solubility Value (g/100g H₂O 20°C)</strong></td>
<td>Generally chemically inert and insoluble in water.</td>
</tr>
<tr>
<td><strong>Partition coefficient</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Oxidising properties</strong></td>
<td>Not relevant.</td>
</tr>
<tr>
<td><strong>Nominal diameter of fibres</strong></td>
<td>3 - 5 μm</td>
</tr>
<tr>
<td><strong>Length weight geometric mean diameter less 2 standard errors</strong></td>
<td>&lt; 6 μm</td>
</tr>
<tr>
<td><strong>Orientation of fibres</strong></td>
<td>Random</td>
</tr>
<tr>
<td><strong>Biopersistence</strong></td>
<td>Weighted clearance half-life of fibres, with length greater than 20 μm after inter-tracheal instillation, is less than 40 days (results obtained from a test conforming to the European protocol).</td>
</tr>
</tbody>
</table>
Earthwool® Glasswool

SECTION 10: Stability and reactivity

Reactivity
None.

Stability
Binder will decompose above 200°C.

Possibility of hazardous reactions
None.

Conditions to avoid
Heating above 200 °C.

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

Hazardous decomposition products
None in normal conditions of use.

SECTION 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.
Thermo set, inert polymer bonding agent derived from plant starches. - Not applicable.

Acute toxicity - dermal
Notes (dermal LD₅₀)
No data were identified for the product as a whole. Data are for constituents:
Biosoluble glass mineral wool - Not applicable.
Thermo set, inert polymer bonding agent derived from plant starches. - 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.
Thermo set, inert polymer bonding agent derived from plant starches. - Not applicable.

Skin corrosion/irritation
May cause mechanical irritation to skin.

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

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

Skin sensitisation
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 fibres 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.

Reproductive toxicity
Earthwool® Glasswool

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

Reproductive toxicity - development
No data were identified 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
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 generally considered to be a nuisance dust.

SECTION 12: Ecological Information

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

Persistence and degradability

Persistence and degradability
Inert inorganic product with Thermo set, inert polymer bonding agent derived from plant starches; 0 - 13%

Bioaccumulative potential

Bioaccumulative Potential
Will not bioaccumulate.

Partition coefficient
Not relevant.

Mobility in soil

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

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment
Not relevant.

Other adverse effects

Other adverse effects
None known.
Earthwool® Glasswool

SECTION 13: Disposal considerations

Waste treatment methods
- Disposal should be in accordance with applicable regional, national and local laws and regulations.

Waste from residues Dispose of in accordance with all applicable regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Disposal methods May be disposed in landfill.

SECTION 14: Transport information

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

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/marine pollutant No.

Special precautions for user Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.
Earthwool® Glasswool

SECTION 15: Regulatory information

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

National regulations


Safety, Health and Environmental Regulations:
- Australian Inventory of Chemical Substances (AICS): Listed.

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.

SECTION 16: Any other relevant information

- Label in accordance with GHS: This product is not classified as hazardous.

Abbreviations and acronyms used in the safety data sheet

- CAS: Chemical Abstracts Service.
- EUCB: European Certification Board for Mineral Wool Products.
- GHS: Globally Harmonised System.
- IATA: International Air Transport Association.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- TLV: Threshold Limit Value.
- TWA: Time Weighted Average.
- vPvB: Very Persistent and Very Bioaccumulative.

General information

All products manufactured by Knauf Insulation are made of non-classified fibres 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
- www.knaufinsulation.com/comfort-and-handling

Key literature references and sources for data

- ChemAdvisor LOLI
- Hazardous Substances Information System (HSIS)
- European Chemicals Agency (ECHA) Dissemination Portal
- European Certification Board for Mineral Wool Products (EUCEB)

Revision comments

- New document format

Revision date

11/11/2016

Revision

2.0
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/)