SAFETY DATA SHEET
Earthwool® Glasswool

SECTION 1: Identification: Product identifier and chemical identity

Product identifier

Product name	Earthwool® Glasswool
Product No.	KI_DP_101
Synonyms; trade names	Earthwool®, Space Blanket®, Soffit Liner Board, Roof Rolls, Climacoustic™
Revision date	11-11-2016

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

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 Pty Ltd Unit 1, 44 Borthwick Avenue Murarrie QLD 4170 Australia www.knaufinsulation.com.au sds@knaufinsulation.com Tel: +61 7 3393 7300
Region	Australia

Emergency telephone number

Emergency telephone	Tel: +61 7 3393 7300 (Monday - Friday - 08:00 hrs - 17:00 hrs) (Australian Eastern Standard Time - AEST (UTC+10))

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SECTION 2: Hazard(s) identification

Classification of the substance or mixture

Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified
-	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

Hazard statements	NC Not Classified
Contains	None.
Hazard pictogram	None.
Signal word	None.
Precautionary statements	None.
Supplemental label information	None.

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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.

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SECTION 3: Composition and information on ingredients

Mixtures

Biosoluble glass mineral wool CAS number: — Ingredient notes:(1)	**87 - 100%**
Classification Not Classified	
Thermo set, inert polymer bonding agent derived from plant starches CAS number: —	**0 - 13%**
Classification Not Classified	

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 ($Na_2O+K_2O+CaO+MgO+BaO$) 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.

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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.

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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)

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

Occupational exposure limits

Exposure limits Consult local authorities for acceptable exposure limits.

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.

NOHSC = The National Occupational Health and Safety Commission.

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 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.

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SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Solid. Rolls. Panel. Loose fibre.
Colour	Brown.
Odour	Not relevant.
Odour threshold	No data available.
pH	Not relevant.
Melting point	Not relevant.
Initial boiling point and range	Not relevant.
Flash point	Not relevant.
Evaporation rate	Not relevant.
Flammability (solid, gas)	Not relevant.
Flammability Limit - Lower(%)	Not relevant.
Vapour pressure	Not relevant.
Vapour density	Not relevant.
Relative density	7 - 96 kg/m³
Solubility Value (g/100g H2O 20°C)	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.
Oxidising properties	Not relevant.
Nominal diameter of fibres	3 - 5 µm
Length weight geometric mean diameter less 2 standard errors	< 6 µm
Orientation of fibres	Random
Biopersistence	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).

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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 LD_{50}) 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 LD_{50}) 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 LC_{50}) 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

Skin corrosion/irritation May cause mechanical irritation to skin.

Serious eye damage/irritation

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

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

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

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

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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.

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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.

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SECTION 15: Regulatory information

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

National regulations

International agreements:
Montreal Protocol (Ozone depleting substances): Not regulated.
The Stockholm Convention (Persistent Organic Pollutants): Not regulated.
The Rotterdam Convention (Prior Informed Consent): Not regulated.
Basel Convention (Hazardous Waste): Not regulated.

International Convention for the Prevention of Pollution from Ships (MARPOL): Not regulated.

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

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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.
EUCEB: European Certification Board for Mineral Wool Products.
GHS: Globally Harmonised System.
IARC: International Agency for Research on Cancer.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
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

Earthwool® Glasswool

Supersedes date	8/09/2016
SDS No.	4752
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.