Revision date	**5/6/2024**
Revision :	**3.0**
Supersedes version of	**10/22/2020**

SAFETY DATA SHEET

Fiberglass with ECOSE® Technology

According to WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR)

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

Product identifier

Product name	Fiberglass with ECOSE® Technology
Product number	MA_DP_101
Other means of identification	None.
Synonyms; Common Names	Akousti-Liner™, Akousti-Liner R™, Alley Wrap B™, Akousti-Shield™, Akousti-Board Black™, AK Board™, High Temperature Board, High Temperature Blanket, High Temperature Panel, High Temperature Batt, High Temperature HD Blanket, Alley K™ Pipe Insulation

Recommended use of the chemical and restrictions on use

Identified Uses	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	Manson Insualtion Products Ltd Knauf Insulation Inc. One Knauf Drive Shelbyville IN 46176-1496 Tel: 800 825 4434 www.imanson.com sds@knaufinsulation.com
Region	Canada

Emergency telephone number

Emergency phone number	24hrs: Chemtrec Tel: 800 424 9300

SECTION 2: Hazards identification

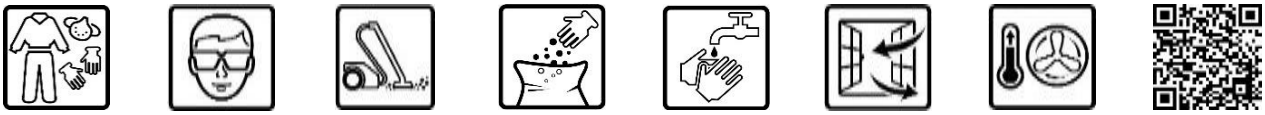
Classification of the substance or mixture

WHMIS Regulatory Status	Not classified according to WHMIS
Physical hazards	Not classified
Health hazards	Not classified
Environmental hazards	Not classified

Label elements

Hazard statements	Not classified
Contains	None.
Hazard pictograms	None.
Signal word	None.
Precautionary statements	None.
Supplemental label information	None.

The following sentences and pictograms apply to this product:



http://www.knaufinsulation.com/comfort-and-handling

Other hazards

Physical hazards	None.
Health hazards	Mechanical irritation of the skin, eyes and upper respiratory system.
Environmental hazards	None.
Most important symptoms/effects	Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble Fiberglass is classified as a nuisance dust by OSHA.
Persistent Bioaccumulative Toxic	Not relevant
*** Heat-up precautions**	For product with binder: When heated for the first time above 200°C (400°F), release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. see section(s) : 8 & 10

SECTION 3: Composition/information on ingredients

Mixtures

Biosoluble Fiberglass	**(1)(2)**
	87 - 100%
CAS number	_
Classification	**Not classified**
Ingredient notes	(1) 650-016-00-2 - 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 as carcinogenic. (2) All Knauf Insulation products covered by this SDS are independently certified by EUCEB to be manufactured using biosoluble glass formulations.

Thermo set, inert polymer bonding agent derived from plant starches	**0 - 13%**
CAS number	_
Classification	**Not classified**

Full text of R-phrases: see section 16

Specific chemical identity and/or exact percent concentration is withheld as trade secret.

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.

Note to physician : No specific measures.

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

Ingestion Most important symptoms/effects

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

Biosoluble Fiberglass is classified as a nuisance dust by OSHA.

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.

Specific treatments No specific measures.

SECTION 5: Firefighting measures

Extinguishing media

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

Unsuitable extinguishing media None.

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.

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 fiberglass 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.

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 Vacuum cleaner or dampen down with water spray prior to brushing up.

Reference to other sections For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Usage precautions Assure proper respiratory protection if potential dust exposure exceeds occupational exposure limits.

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)

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

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits **Biosoluble Fiberglass**

Long-term exposure limit (8-hour TWA): New Brunswick (Notes: (A3), ACGIH 2015) 1 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Saskatchewan 1 f/cc Glass wool fibers
Short-term exposure limit (15-minute): Saskatchewan 3 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Nunavut 1 f/cc Glass wool fibers
Short-term exposure limit (15-minute): Nunavut 3 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Newfoundland-Labrador (Note: (A3)) 1 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Manitoba (Note: (A3)) 1 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Nova Scotia (Note: (A3)) 1 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Prince Edward Island (Note: (A3)) 1 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Yukon 10 mg/m³ Mineral wool fibers, respirable
Long-term exposure limit (8-hour TWA): NWT 1 f/cc Glass wool fibers
Short-term exposure limit (15-minute): NWT 3 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Quebec 2 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Alberta 1 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): BC 1 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Ontario (Note: Ont) 1 f/cc Glass wool fibers
Long-term exposure limit (8-hour TWA): Alberta (Note: (3)) 10 mg/m³ Particulates not otherwise regulated (PNOR), total dust
Long-term exposure limit (8-hour TWA): Alberta (Note: (3)) 3 mg/m³ Particulates not otherwise regulated (PNOR), respirable fraction
Long-term exposure limit (8-hour TWA): Quebec 10 mg/m³ Particulates not otherwise regulated (PNOR), total dust

Exposure limit values have been established by many authorities. Check on limit values that apply in your local situation

Ingredient notes	(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. ACGIH Carcinogen List. Ont: Listed in Table 1 of Ontario Regulation 490/09. (3) - Based on irritation effects. Adjustment to compensate for unusual work schedules is not required.
	Biosoluble Fiberglass - see section(s) : 3.

Exposure controls/personal protection

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 fiberglass 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
*** Heat-up precautions**	For product with binder: When heated for the first time above 200°C (400°F), release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. The duration of release is dependant upon the thickness of the insulation, binder content and the temperature applied. Provide adequate ventilation. In confined spaces or where ventilation is not possible, occupants should wear appropriate self-contained breathing apparatus.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Solid. Rolls. Panel. Loose fibre.
Color	Brown
Odor	Not relevant
Odor 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
Upper/lower flammability or explosive limits	Not relevant
Vapor pressure	Not relevant

Vapour density	Not relevant
Relative density	7 - 96 kg/m³
Solubility	Generally chemically inert and slightly soluble in water.
Auto-ignition temperature	Not relevant
Decomposition temperature	Not relevant
Viscosity	Not relevant
Explosive properties	Not relevant
Oxidizing properties	Not relevant

Other information

Devitrification temperature	Not relevant
Softening temperature	Not relevant
Nominal diameter of fibres	3 - 8 µm
Length weight geometric mean diameter less 2 standard errors	< 6 µm
Orientation of fibres	Random

SECTION 10: Stability and reactivity

Reactivity	None.
Chemical stability	Binder will decompose above 200°C (400°F).
Possibility of hazardous reactions	None under normal use
Conditions to avoid	Heating above 200 °C (400°F).
Incompatible materials	Hydrofluoric acid will react with and dissolve glass.

Hazardous decomposition products

None under normal use

For product with binder: When heated for the first time above 200°C (400°F), release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. The duration of release is dependant upon the thickness of the insulation, binder content and the temperature applied. Provide adequate ventilation. In confined spaces or where ventilation is not possible, occupants should wear appropriate self-contained breathing apparatus.

SECTION 11: Toxicological information

Information on toxicological effects

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

Acute toxicity (inhalation) - LC50 Inhalation	No data were identified for the product as a whole. Data are for constituents: Biosoluble Fiberglass - 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 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.
Carcinogenicity	SWA / WES requirements exempt biopersistant fibres as defined by notes. Results from a biopersistence test in line with the notes has shown that fibres in this product longer than 20 µm have a weighted half-life less than 40 days and meet the "Nota Q" requirements, thus this product is not classified as a carcinogen. None of the components of this product Reproductive toxicity are listed as a carcinogen.
Reproductive toxicity	
Reproductive toxicity - Fertility	No data were identified for this product or its constituents.
Developmental toxicity	No data were identified for this product or its constituents.
Specific target organ toxicity - single exposure	No data were identified for this product or its constituents.
Specific target organ toxicity - 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.
Most important symptoms/effects	Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble Fiberglass is classified as a nuisance dust by OSHA.

SECTION 12: Ecological information

General toxicity

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

Persistence and degradability

Inert inorganic product with Thermo set, inert polymer bonding agent derived from plant starches; 0 - 18%

Bioaccumulative potential

Bioaccumulative potential	No bioaccumulation potential
partition coefficient	Not relevant
Mobility in soil	Not considered mobile. Less than 1% leachable organic carbon if landfilled.

Results of PBT and vPvB assessment

Not relevant

12.6.Endocrine disrupting properties

Not relevant

Other adverse effects	None known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Dispose of in accordance with regulations and procedures in force in country of use or disposal. 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 information	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, TDG).
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	None.
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	Not classified according to WHMIS In accordance with industry practice and voluntary commitments, Manson Insulation has decided to continue to provide its customers with the appropriate information for the purpose of assuring safe handling and use of fiberglass throughout the product life.

Inventories

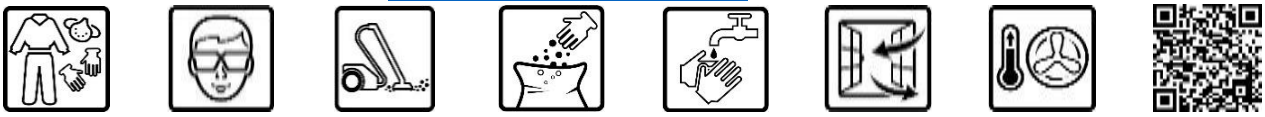
Canada – DSL/NDSL : All the ingredients are listed or exempt.

SECTION 16: Other information

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.knaufnorthamerica.com



Revision comments	§1
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SDS number	MA_DP_101
Other information	In 2001, the International Agency for Research on Cancer (IARC) reclassified mineral wool fibres and fiberglass 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.