



## SAFETY DATA SHEET

### Glass Mineral Wool Insulation

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

#### 1. Identification

##### Product identifier

<b>Product name</b>	Glass Mineral Wool Insulation
<b>Product number</b>	KI_DP_107 (GHS)
<b>Synonyms; trade names</b>	Acoustical/IB Board, Acoustical Smooth Board, KN Series Insulation*, KwikFlex™, Guardian (Unfaced and Faced) Building Insulation, Everbit (Unfaced and Faced) Building Insulation, Eclipse® Air Duct Board, Filter Tubes
<b>Revision date:</b>	12/06/2019

##### 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

<b>Supplier</b>	Knauf Insulation, Inc. One Knauf Drive Shelbyville IN 46176-1496 Tel: 800 825 4434 <a href="http://www.knaufinsulation.us">www.knaufinsulation.us</a> <a href="mailto:sds@knaufinsulation.com">sds@knaufinsulation.com</a>
<b>Region:</b>	United States, Central & South America

##### Emergency telephone number

**Emergency telephone** 24hrs: Chemtrec Tel: 800 424 9300

## Glass Mineral Wool Insulation

### 2. Hazard(s) identification

#### Classification of the substance or mixture

<b>OSHA Regulatory Status</b>	This product is regulated as a nuisance dust under OSHA criteria.
<b>Physical hazards</b>	Not Classified
<b>Health hazards</b>	Not Classified
<b>Environmental hazards</b>	Not Classified

#### Label elements

<b>Hazard statements</b>	NC Not Classified
<b>Contains</b>	None.
<b>Hazard pictogram</b>	None.
<b>Signal word</b>	None.
<b>Precautionary statements</b>	None.
<b>Supplemental label information</b>	None.

#### The following sentences and pictograms are printed on packaging:

The mechanical effect of fibers in contact with skin may cause temporary itching.



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

#### Other hazards

<b>Physical Hazards</b>	None.
<b>Health Hazards</b>	Mechanical irritation of the skin, eyes and upper respiratory system.
<b>Environmental Hazards</b>	None.
<b>Main symptoms</b>	Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.
<b>*Heat-Up Precautions</b>	When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. See section 8 & 10

## Glass Mineral Wool Insulation

### 3. Composition/information on ingredients

#### Mixtures

<b>Biosoluble glass mineral wool</b>	<b>83 - 97%</b>
CAS number: —	
Ingredient notes:(1)(2)	
<b>Classification</b> Not Classified	
<b>Thermo set, inert polymer based on cured phenol formaldehyde resin</b>	<b>3 - 17%</b>
CAS number: —	
<b>Classification</b> Not Classified	
<b>Formaldehyde</b>	<b>&lt;0.1%</b>
CAS number: 50-00-0	
<b>Classification</b> Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 2 - H330 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 1B - H350 STOT SE 3 - H335	

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 ( $\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$ ) 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 fibers formulations and thus the glass wool fibers are exempt from labelling under NTP or California Prop 65 requirements.

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

## Glass Mineral Wool Insulation

### 4. First-aid measures

#### Description of first aid measures

<b>General information</b>	Show this Safety Data Sheet to the medical professional in attendance. If symptoms occur, follow first aid measures as appropriate.
<b>Notes to Physician:</b>	No specific recommendations.
<b>Inhalation</b>	Remove from exposure. Rinse the throat and clear dust from airways.
<b>Ingestion</b>	Drink plenty of water if accidentally ingested.
<b>Skin Contact</b>	If mechanical irritation occurs, remove contaminated clothing and wash skin gently with cold water and soap.
<b>Eye contact</b>	Rinse abundantly with water for at least 15 minutes.

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

<b>General information</b>	Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.
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#### Indication of immediate medical attention and special treatment needed

<b>General information</b>	If any adverse reaction or discomfort continues from any of the above exposures, seek professional medical advice.
<b>Specific treatments</b>	No specific recommendations.

### 5. Fire-fighting measures

#### Extinguishing media

**Suitable extinguishing media** Water, foam, carbon dioxide (CO<sub>2</sub>), and dry powder.

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

<b>General information</b>	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.
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#### Advice for firefighters

<b>General information</b>	In large fires in poorly ventilated areas involving packaging materials respiratory protection / breathing apparatus may be required.
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## Glass Mineral Wool Insulation

### 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

**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 uses(s)

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

## Glass Mineral Wool Insulation

### 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/m<sup>3</sup> Mineral wool fiber, total particulate

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m<sup>3</sup> Particulates not otherwise regulated (PNOR), respirable fraction

Long-term exposure limit (8-hour TWA): OSHA 15 mg/m<sup>3</sup> Particulates not otherwise regulated (PNOR), total dust

##### **Formaldehyde**

Ceiling exposure limit: ACGIH 0.3 ppm 0.37 mg/m<sup>3</sup>

A2, DSens, RSens

Long-term exposure limit (8-hour TWA): OSHA 0.75 ppm

Short-term exposure limit (15-minute): OSHA 2 ppm

ACGIH = American Conference of Governmental Industrial Hygienists.

A2 = Suspected Human Carcinogen.

OSHA = Occupational Safety and Health Administration.

DSens = Dermal sensitizer.

RSens = Respiratory sensitizer.

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.

Ca = Potential occupational carcinogen

CT = Ceiling time.

DSens = Dermal sensitizer.

RSens = Respiratory sensitizer.

A2 = Suspected Human Carcinogen.

#### Formaldehyde (CAS: 50-00-0)

**Immediate danger to life and health**      20 ppm 20 ppm

#### 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.

##### **Thermal hazards**

Not relevant.

## Glass Mineral Wool Insulation

**\* Heat-Up Precautions:** When heated to temperatures above 400°F for the first time, 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. Adequate ventilation should be provided. In confined spaces or where ventilation is not possible, occupants should wear appropriate self-contained breathing apparatus.

### 9. Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	Solid. Rolls. Panel. Loose fiber.
<b>Color</b>	Yellow.
<b>Odor</b>	Not relevant.
<b>Odor threshold</b>	No data available.
<b>pH</b>	Not relevant.
<b>Melting point</b>	Not relevant.
<b>Initial boiling point and range</b>	Not relevant.
<b>Flash point</b>	Not relevant.
<b>Evaporation rate</b>	Not relevant.
<b>Flammability (solid, gas)</b>	Not relevant.
<b>Upper/lower flammability or explosive limits</b>	Not relevant.
<b>Vapor pressure</b>	Not relevant.
<b>Vapor density</b>	Not relevant.
<b>Relative density</b>	7 - 96 kg/m <sup>3</sup>
<b>Solubility(ies)</b>	Generally chemically inert and slightly soluble in water.
<b>Partition coefficient</b>	Not relevant.
<b>Auto-ignition temperature</b>	Not relevant.
<b>Decomposition Temperature</b>	Not relevant.
<b>Viscosity</b>	Not relevant.
<b>Explosive properties</b>	Not relevant.
<b>Oxidizing properties</b>	Not relevant.
<b>Nominal diameter of fibers.</b>	3 - 8µm
<b>Length weight geometric mean diameter less 2 standard errors</b>	< 6 µm
<b>Orientation of fibers</b>	Random

### 10. Stability and reactivity

<b>Reactivity</b>	None.
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## Glass Mineral Wool Insulation

<b>Stability</b>	Binder will decompose above 400°F
<b>Possibility of hazardous reactions</b>	None.
<b>Conditions to avoid</b>	Heating above 400°F
<b>Materials to avoid</b>	Hydrofluoric acid will react with and dissolve glass.
<b>Hazardous decomposition products</b>	None in normal conditions of use. When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system.

### 11. Toxicological information

#### Information on toxicological effects

##### Acute toxicity - oral

##### **Notes (oral LD<sub>50</sub>)**

No data were identified for the product as a whole. Data are for constituents:  
 Biosoluble glass mineral wool - Not applicable.  
 Thermo set, inert polymer based on cured phenol formaldehyde resins. - Not applicable.

##### Acute toxicity - dermal

##### **Notes (dermal LD<sub>50</sub>)**

No data were identified for the product as a whole. Data are for constituents:  
 Biosoluble glass mineral wool - Not applicable.  
 Thermo set, inert polymer based on cured phenol formaldehyde resins. - Not applicable.

##### Acute toxicity - inhalation

##### **Notes (inhalation LC<sub>50</sub>)**

No data were identified for the product as a whole. Data are for constituents:  
 Biosoluble glass mineral wool - Not applicable.  
 Thermo set, inert polymer based on cured phenol formaldehyde resins. - 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 sensitization

##### **Respiratory sensitization**

No data were identified for this product or its constituents.

##### Skin sensitization

##### **Skin sensitization**

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 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.



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**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**

**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.

### 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 based on cured phenol formaldehyde resins; 3 - 17%

**Bioaccumulative potential**

**Bio-Accumulative Potential** Will not bioaccumulate.

**Partition coefficient** Not relevant.

**Mobility in soil**

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

**Other adverse effects**

**Other adverse effects** None known.

### 13. Disposal considerations

**Waste treatment methods**

**General information** 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**

## Glass Mineral Wool Insulation

<b>UN No. (International)</b>	Not applicable.
<b><u>UN proper shipping name</u></b>	
<b>Proper shipping name (International)</b>	Not applicable.
<b><u>Transport hazard class(es)</u></b>	
<b>Transport Labels (International)</b>	No transport warning sign required.
<b><u>Packing group</u></b>	
<b>Packing group (International)</b>	Not applicable.
<b><u>Environmental hazards</u></b>	
<b>Environmentally Hazardous Substance</b>	
No.	
<b><u>Special precautions for user</u></b>	
Not applicable.	
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	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**



##### **WARNING**

This product can expose you to chemicals including those listed below, which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

*Formaldehyde*

#### Inventories

## Glass Mineral Wool Insulation

### 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](http://www.euceb.org)    [www.knaufinsulation.com](http://www.knaufinsulation.com)



<b>Revision comments</b>	§1
<b>Supersedes date</b>	11/12/2018
<b>Revision date</b>	12/6/2019
<b>Revision</b>	2.3
<b>SDS No.</b>	4663
<b>Hazard statements in full</b>	H301 Toxic if swallowed. H311 Toxic in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H330 Fatal if inhaled. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H350 May cause cancer.

**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.