

Product name:	Uncured Glass Mineral Wool Insulation	Page:	1/14
Revision Date:	2015-11-02	Print date:	2015-11-02
P/N-no.:	KI_DP_108	SDS-ID:	US-EN/1.3

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**Product identifier**

Product name: Uncured Glass Mineral Wool Insulation

Synonyms, trade names: Amber Uncured Blanket Insulation, Amber Uncured Blanket Insulation XLE, Black Uncured Blanket Insulation, Black Uncured Blanket Insulation SR

Revision: Date: 2015-11-02

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

Uses advised against: 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

Head Office Knauf Insulation LLC
One Knauf Drive
Shelbyville
IN 46176-1496
Tel: 800 825 4434
sds@knaufinsulation.com
www.knaufinsulation.us

Region: United States, Central & South America's

Emergency telephone number

Emergency telephone: 24hr: Chemtrec Tel: 800 424 9300

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)
Skin sensitization: Category 1
Carcinogenicity: Category 1

Label elements

Contains: None.
Hazard pictogram:



Signal word

Danger

Hazard statements in full:

May cause cancer by inhalation.
May cause an allergic skin reaction.

DfYWl hcbUfmGHUya Ybhtg.

! DfYj Ybhjcb.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid breathing dust.

Contaminated work clothing should not be allowed out of the workplace.

! F YgdcbgY.

IF ON SKIN (or hair): Wash with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.

Specific treatment (see Section 4 of the SDS).

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

! GtcfU[Y.

Store locked up.

! 8]gdcgU.

Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

Supplemental label information: - See section 16.

Product name:	Uncured Glass Mineral Wool Insulation	Page:	3/14
Revision Date:	2015-11-02	Print date:	2015-11-02
P/N-no.:	KI_DP_108	SDS-ID:	US-EN/1.3

Other hazards

None.

Hazard summary

Physical Hazards: None.

Health Hazards: May cause cancer by inhalation. May cause an allergic skin reaction. May cause 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. Repeated or prolonged exposure may cause an allergic skin reaction and cancer via inhalation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

<u>%:</u>	<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
83-91	-	Biosoluble glass mineral wool	-	(1), (2), (3)
3-14	25104-55-6	Urea extended phenol formaldehyde resin	-	(1)
3-6	7732-18-5	Water	-	-
0.2 max	50-00-0.	Formaldehyde	-	-
0.65 max	108-95-2.	Phenol	-	-

Notes:

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

(2) 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.

(3) 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.

Product name:	Uncured Glass Mineral Wool Insulation	Page:	4/14
Revision Date:	2015-11-02	Print date:	2015-11-02
P/N-no.:	KI_DP_108	SDS-ID:	US-EN/1.3

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.

Skin contact: Wash with mild soap and warm water after each exposure. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. 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.

Ingestion: Drink plenty of water if accidentally ingested.

Most important symptoms and effects, both acute and delayed

Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble glass mineral wool is classified as a nuisance dust by OSHA. Repeated or prolonged exposure may cause an allergic skin reaction and cancer via inhalation.

Indication of any immediate medical attention and special treatment needed

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

Medical attention/treatments: None specific.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

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

Special hazards arising from the substance or mixture

Products do not pose a fire hazard in use; however, some packaging materials or facings may be combustible. In fire conditions, the binder will decompose giving off carbon monoxide, carbon dioxide, carbon particulate and traces of hydrogen cyanide from pyrolysis of the resin.

Advice for firefighters

In large fires in poorly ventilated areas involving packaging materials respiratory protection / breathing apparatus may be required.

Product name:	Uncured Glass Mineral Wool Insulation	Page:	5/14
Revision Date:	2015-11-02	Print date:	2015-11-02
P/N-no.:	KI_DP_108	SDS-ID:	US-EN/1.3

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Minimize direct contact with skin in order to prevent mechanical itching. Avoid breathing dust. In dusty environments, use suitable respiratory protection such as 3M 8210, N95 or equivalent. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. 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.

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

Environmental precautions

Not relevant.

Methods and material for containment and 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.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Ensure adequate ventilation. Avoid breathing dust. Assure proper respiratory protection if dust potential exceeds PEL/TLV. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

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.

Product name: Uncured Glass Mineral Wool Insulation
 Revision Date: 2015-11-02
 P/N-no.: KI_DP_108

Page: 6/14
 Print date: 2015-11-02
 SDS-ID: US-EN/1.3

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

United States

Occupational exposure limits:

<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>	<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
-	Glass wool fibers	-	1 fiber/ml	TWA	A3	ACGIH
-	Mineral wool fiber, total particulate	-	5 mg/m3	TWA	-	NIOSH
-	Particulates not otherwise regulated (PNOR), respirable fraction	-	5 mg/m3	TWA	-	OSHA
-	Particulates not otherwise regulated (PNOR), total dust	-	15 mg/m3	TWA	-	OSHA
50-00-0	Formaldehyde	-	0.016 ppm	TWA	Ca; CT: 15min	NIOSH
		-	0.1 ppm	C	Ca; CT: 15min	
50-00-0	Formaldehyde	-	0.3 ppm	CLV	DSEN; RSEN; A2	ACGIH
50-00-0	Formaldehyde	-	0.75 ppm	TWA	-	OSHA
		-	2 ppm	STEL	15min	
108-95-2	Phenol	-	5 ppm	19 mg/m3 TWA	skin; CT: 15min	NIOSH
		-	15.6 ppm	60 mg/m3 C	skin; CT: 15min	
108-95-2	Phenol	-	5 ppm	19 mg/m3 TWA	Skin	OSHA
108-95-2	Phenol	-	5 ppm	TWA	Skin; A4; BEI	ACGIH

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.
 Ca: Potential occupational carcinogen.
 CT: Ceiling time.
 DSEN: Dermal Sensitization.
 RSEN: Respiratory Sensitization.
 (A2) - Suspected Human Carcinogen
 Skin: Potential for dermal absorption.
 Skin: Skin absorption.
 Skin: Danger of cutaneous absorption.
 (A4) - Not classified as a Human Carcinogen
 BEI: Biological Exposure Index.
 - Biosoluble glass mineral wool - See section 3.

Product name:	Uncured Glass Mineral Wool Insulation	Page:	7/14
Revision Date:	2015-11-02	Print date:	2015-11-02
P/N-no.:	KI_DP_108	SDS-ID:	US-EN/1.3

Exposure controls

Engineering measures: 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 protection: Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments.

Skin protection: Minimize direct contact with skin in order to prevent mechanical itching. Gloves suitable for protection from chemicals are recommended to minimize effects from uncured binder and fibers. Rinse washer thoroughly.

Respiratory equipment: In dusty environments, use suitable respiratory protection.

Hygiene measures: After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching.

Thermal hazards: Not relevant.

Environmental Exposure Controls: Not relevant.

Product name: Uncured Glass Mineral Wool Insulation
Revision Date: 2015-11-02
P/N-no.: KI_DP_108

Page: 8/14
Print date: 2015-11-02
SDS-ID: US-EN/1.3

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: Solid.

Form: Rolls., loose fiber, Panel.

Color: White. / Yellow. / Black.

Odor: Phenol formaldehyde odor

Odor threshold: Not relevant.

pH: Not relevant.

Melting point / freezing point: Not relevant.

Initial boiling point and boiling range: Not relevant.

Flash point: Not relevant.

Auto Ignition Temperature (°F): Not relevant.

Flammability (solid, gas): Not relevant.

Flammability limit - lower (%): Not relevant.

Flammability limit - upper (%): Not relevant.

Vapor pressure: Not relevant.

Vapor density: Not relevant.

Evaporation rate: Not relevant.

Relative density: 7 - 96 kg/m³

Partition coefficient (n-octanol/water): Not relevant.

Solubility: Generally chemically inert and insoluble in water.

Decomposition temperature (°F): Not relevant.

Viscosity: Not relevant.

—

Other data: Nominal diameter of fibers 3 - 8µm

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

Orientation of fibers: Random

Product name: Uncured Glass Mineral Wool Insulation
Revision Date: 2015-11-02
P/N-no.: KI_DP_108

Page: 9/14
Print date: 2015-11-02
SDS-ID: US-EN/1.3

SECTION 10: STABILITY AND REACTIVITY

Reactivity

None.

Chemical stability

This is a stable, non-reactive product.

Possibility of hazardous reactions

None.

Conditions to avoid

None.

Incompatible materials

Hydrofluoric acid will react with and dissolve glass.

Hazardous decomposition products

Thermal decomposition of the resin may include carbon dioxide, carbon monoxide, and traces of carbon particulate.

Product name:	Uncured Glass Mineral Wool Insulation	Page:	10/14
Revision Date:	2015-11-02	Print date:	2015-11-02
P/N-no.:	KI_DP_108	SDS-ID:	US-EN/1.3

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Ingestion: Non-hazardous when ingested.

Inhalation: Mechanical irritation to upper respiratory tract. Prolonged and repeated exposure may cause cancer.

Skin contact: Mechanical irritation to skin. Repeated or prolonged exposure may cause an allergic skin reaction.

Eye contact: Mechanical irritation to eyes.

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. Repeated or prolonged exposure may cause an allergic skin reaction and cancer via inhalation.

Information on toxicological effects:

Acute toxicity: No data were identified for the product as a whole. Formaldehyde was found to be corrosive to the eyes of rabbits. Formaldehyde was sensitizing in the guinea pig maximization test and the local lymph node assay with mice; however, there was no evidence of respiratory sensitization in various studies in mice.

Data are for constituents:

Formaldehyde.
Result - LD50
Species - Rat
Dose - 400 ppm
Exposure - Inhalation.

Formaldehyde.
Result - LD50
Species - Rat
Dose - 640 - 800 mg/kg
Exposure - Oral

Reproductive Toxicity: No data were identified for the product as a whole.

The uncured resin contains up to 0.2 % free formaldehyde. The International Agency for Research on Cancer (IARC) has classified formaldehyde as a Group 1 human carcinogen (June 2004). Formaldehyde is not regarded as a mutagen. Formaldehyde did not cause reproductive and/or developmental effects when tested in animals. Repeated formaldehyde exposure caused toxic effects only in the tissues of direct contact after inhalation, oral or dermal exposure characterised by local cytotoxic destruction and subsequent repair of the damage. The typical locations of lesions in experimental animals were the nose after inhalation, the stomach after oral administration and the skin after dermal application.

Product name: Uncured Glass Mineral Wool Insulation
Revision Date: 2015-11-02
P/N-no.: KI_DP_108

Page: 11/14
Print date: 2015-11-02
SDS-ID: US-EN/1.3

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

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

Persistence and degradability

No data available for this product or its constituents.

Bioaccumulative potential

No data available for this product or its constituents.

Mobility in soil

No data available for this product or its constituents.

Results of PBT and vPvB assessment

Not relevant.

Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

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: 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.

Product name: Uncured Glass Mineral Wool Insulation
Revision Date: 2015-11-02
P/N-no.: KI_DP_108

Page: 12/14
Print date: 2015-11-02
SDS-ID: US-EN/1.3

SECTION 14: TRANSPORT INFORMATION

UN number

Not regulated.

UN proper shipping name

Not regulated.

Transport hazard class(es)

Not regulated.

Packing group

Not regulated.

Environmental hazards

Not regulated.

Special precautions for user

Not regulated.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not regulated.

Product name:	Uncured Glass Mineral Wool Insulation	Page:	13/14
Revision Date:	2015-11-02	Print date:	2015-11-02
P/N-no.:	KI_DP_108	SDS-ID:	US-EN/1.3

SECTION 15: REGULATORY INFORMATION

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

OSHA Status: The product is classified as hazardous.

TSCA listed: All components of this product are listed or exempt from listing on the TSCA inventory.

CERCLA Reportable Quantity:

Formaldehyde (100 lb)

Phenol (100 lb)

SARA Title III:

Section 302 Extremely Hazardous:

Formaldehyde (100 lb)

Phenol (100 lb)

Section 311/312 Hazard Categories:

Fire / Flammability: No

Reactivity: No

Release of Pressure: No

Acute Health Hazard: No

Chronic Health Hazard: Yes

Section 313 Toxic Chemicals:

Formaldehyde (100 lb)

Phenol (100 lb)

California Safe Drinking Water and Toxic Enforcement Act (Prop. 65):

Warning: This product contains a chemical known to the State of California to cause cancer.

US State Regulations:

Massachusetts - Right-to-Know: Phenol, Formaldehyde

New Jersey - Right-to-Know: Phenol, Formaldehyde

Pennsylvania - Right-to-Know: Phenol, Formaldehyde

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.

Product name:	Uncured Glass Mineral Wool Insulation	Page:	14/14
Revision Date:	2015-11-02	Print date:	2015-11-02
P/N-no.:	KI_DP_108	SDS-ID:	US-EN/1.3

SECTION 16: OTHER INFORMATION

Label in accordance with OSHA HCS (2012): The product is classified as hazardous.

Abbreviations and acronyms used in the safety data sheet:

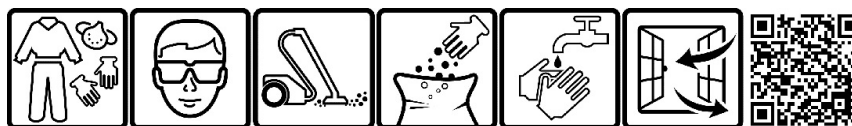
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Service
CFR: Code of Federal Regulations
EC50/90: Effective Concentration (median / 90th percentile)
EUCEB: European Certification Board for Mineral Wool Products
IARC: International Agency for Research on Cancer
IDLH: Immediately Dangerous to Life and Health
LC50/90: Lethal Concentration (median / 90th percentile)
NOEC: No Observed Effect Concentration
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration (United States)
PEL: Permissible Exposure Limit
PBT: Persistent, Bioaccumulative and Toxic
REL: Recommended Exposure Limit
SARA: Superfund Amendments and Reauthorization Act
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substances Control Act
TWA: Time Weighted Average
USEPA: United States Environmental Protection Agency

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



Key literature references and sources for data: www.knaufinsulation.com/comfort-and-handling

Additional information:

Change to Sections: 8
New document format Date: 2015-11-02
Date of previous revisions: 2015-08-27, 2015-08-21, 2015-05-14

Moreover, in 2001, the IARC, reclassified glass mineral wool fibers from Group 2B (possibly carcinogenic) to «not classifiable as to their carcinogenicity to humans (Group 3)». (See Monograph Vol 81, <http://monographs.iarc.fr/>).

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.