

HPD UNIQUE IDENTIFIER: 21363

CLASSIFICATION: 07 21 13 Board Insulation

PRODUCT DESCRIPTION: Knauf Insulation Earthwool Insulation Board is a versatile product for thermal and acoustical applications such as heating and air conditioning ducts, power and process equipment, boiler and stack installations, metal and masonry walls, wall and roof panel systems, curtain wall assemblies and cavity walls. It is bonded with ECOSE Technology and is available plain or with a factory-applied foil-scrim-kraft (FSK) facing or all-service jacket (ASJ+). The product is designed to have excellent acoustical and fire hazard classification.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
 Basic Method

Threshold level

- 100 ppm
 1,000 ppm
 Per GHS SDS
 Other

Residuals/Impurities

- Considered
 Partially Considered
 Not Considered

All Substances Above the Threshold Indicated Are:

Characterized

- Yes Ex/SC Yes No

% weight and role provided for all substances.

Screened

- Yes Ex/SC Yes No

All substances screened using Priority Hazard Lists with results disclosed.

Identified

- Yes Ex/SC Yes No

One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.

Threshold Disclosed Per

- Material
 Product

Explanation(s) provided for Residuals/Impurities?
 Yes No

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY

GREENSCREEN SCORE | HAZARD TYPE

EARTHWOOL INSULATION BOARD HAVING A FSK VAPOR RETARDER | FIBER GLASS, BIOSOLUBLE AND/OR WITH ALKALINE OXIDE AND ALKALI EARTH OXIDE CONTENT <=18 % BY WEIGHT | LT-P1 | MUL GLUCOSE | BM-3 | POLYVINYL ACETATE (PVA) | LT-UNK | KRAFT PAPER | NoGS | AMMONIUM PHOSPHATE, DIBASIC | LT-UNK | RESIDUAL OILS, PETROLEUM, SOLVENT-REFINED | LT-1 | PBT | CAN | MUL POLYPROPYLENE (POLYPROPYLENE) | LT-UNK | ALUMINUM | BM-1 | END | PHY | RES STYRENE BUTADIENE RUBBER (SBR) | LT-UNK | ALUMINA TRIHYDRATE | BM-2 | HALOGENATED FLAME RETARDANTS (HFRS) | NoGS | ANTIMONY | LT-1 | AQU | CAN | (3-AMINOPROPYL)TRIETHOXSILANE | LT-UNK | SKI]

Number of Greenscreen BM-4/BM3 contents ... 1

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-1
Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

The product is provided as a complete composite without nesting.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: UL GreenGuard Gold Certified
VOC content: UL Environmental Claim Validation - Recycled content
Formaldehyde content: UL Environmental Claim Validation - Formaldehyde Free
Other: EUCEB

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

- Yes
 No

PREPARER: Self-Prepared

VERIFIER:
VERIFICATION #:

SCREENING DATE: 2020-08-06

PUBLISHED DATE: 2020-08-10

EXPIRY DATE: 2023-08-06

Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.2, available on the HPDC website at www.hpd-collaborative.org/hpd-2-2-standard

EARTHWOOL INSULATION BOARD HAVING A FSK VAPOR RETARDER

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Partially

RESIDUALS AND IMPURITIES NOTES: Trace levels of Impurities can be found in the minerals used in the glass making process.

OTHER PRODUCT NOTES: It is perhaps possible that trace level impurities exist in corn syrup from agricultural impacts which would also potentially reside within corn syrup used in households.

FIBER GLASS, BIOSOLUBLE AND/OR WITH ALKALINE OXIDE AND ALKALI EARTH OXIDE CONTENT \leq 18 % BY WEIGHT

ID: 65997-17-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-08-06

#: 85.6160 - 85.6160

GS: LT-P1

RC: Both

NANO: No

SUBSTANCE ROLE: Insulator

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

MULTIPLE

ChemSec - SIN List

CMR - Carcinogen, Mutagen &/or Reproductive Toxicant

SUBSTANCE NOTES: The fibrous insulating or sound absorbing portion of the product. All glass formulations used by Knauf Insulation are validated by the EUCEB screening and auditing process.

GLUCOSE

ID: 50-99-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-08-06

#: 9.8600 - 9.8600

GS: BM-3

RC: None

NANO: No

SUBSTANCE ROLE: Binder

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: The thermoset binder that gives the product shape and color are derived from high fructose corn syrup or dextrose.

POLYVINYL ACETATE (PVA)

ID: 9003-20-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-08-06

#: 1.0630 - 1.0630

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Adhesive

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Not to be confused with the adhesive which bonds the vapor retarder laminate. Adhesive that bonds the vapor retarder laminate to the fiber surface together.

KRAFT PAPER

ID: Not registered

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-08-06

#: 0.8620 - 0.8620

GS: NoGS

RC: UNK

NANO: No

SUBSTANCE ROLE: Water resistance

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: This is essentially the same material as the common brown paper bag.

AMMONIUM PHOSPHATE, DIBASIC

ID: 7783-28-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-08-06

#: 0.7240 - 0.7240

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Binder

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Part of the cured binder adhesive mixture

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-08-06			
%: 0.7240 - 0.7240	GS: LT-1	RC: None	NANO: No	SUBSTANCE ROLE: Dedusting	
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS			
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans			
CANCER	EU - GHS (H-Statements)	H350 - May cause cancer			
CANCER	EU - REACH Annex XVII CMRs	Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man			
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant			
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence			
CANCER	GHS - Australia	H350 - May cause cancer			
SUBSTANCE NOTES: Dust suppressant					

POLYPROPYLENE (POLYPROPYLENE)

ID: 9003-07-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-08-06			
%: 0.3650 - 0.3650	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Water resistance	
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS			
None found		No warnings found on HPD Priority Hazard Lists			
SUBSTANCE NOTES: Coating on the ASJ+ product. This is not an ingredient in the FSK faced product.					

ALUMINUM

ID: 7429-90-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-08-06			
%: 0.2930 - 0.2930	GS: BM-1	RC: None	NANO: No	SUBSTANCE ROLE: Water resistance	
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS			
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor			
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air			
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H261 - In contact with water releases flammable gases			
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced			
SUBSTANCE NOTES: This is aluminum foil analogous to that found in households, but perhaps thinner.					

STYRENE BUTADIENE RUBBER (SBR)

ID: 9003-55-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-08-06			
%: 0.2060 - 0.2060	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Adhesive	
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS			
None found		No warnings found on HPD Priority Hazard Lists			
SUBSTANCE NOTES: Bonds the vapor retarder facing together					

ALUMINA TRIHYDRATE

ID: 21645-51-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-08-06			
%: 0.0860 - 0.0860	GS: BM-2	RC: None	NANO: No	SUBSTANCE ROLE: Flame retardant	
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS			
None found		No warnings found on HPD Priority Hazard Lists			
SUBSTANCE NOTES: This product must meet a fire hazard classification of 25FS/50SD and can be used in a plenum space.					

HALOGENATED FLAME RETARDANTS (HFRS)ID: **Not registered**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-08-06			
%: 0.0350 - 0.0350	GS: NoGS	RC: None	NANO: No	SUBSTANCE ROLE: Flame retardant	

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Part of the vapor retarder laminate. This product must meet a fire hazard classification of 25FS/50SD and can be used in a plenum space.

ANTIMONY ID: 7440-36-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-08-06**

%: **0.0350 - 0.0350** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Flame retardant**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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CHRON AQUATIC EU - GHS (H-Statements) H411 - Toxic to aquatic life with long lasting effects

CANCER MAK Carcinogen Group 2 - Considered to be carcinogenic for man

SUBSTANCE NOTES: Part of the vapor retarder laminate. This product must meet a fire hazard classification of 25FS/50SD and can be used in a plenum space.

(3-AMINOPROPYL)TRIETHOXSILANE ID: 919-30-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-08-06**

%: **0.0290 - 0.0290** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Adhesive**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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SKIN IRRITATION EU - GHS (H-Statements) H314 - Causes severe skin burns and eye damage

SUBSTANCE NOTES: Coating that promotes binder adhesion to glass. This is a cured substance as part of the cured binder adhesive and not available as a liquid on the product.

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS

UL/GreenGuard Gold Certified

CERTIFYING PARTY: **Third Party**
APPLICABLE FACILITIES: **Shelbyville, IN**
CERTIFICATE URL:

ISSUE DATE: **2009-11-13** EXPIRY DATE: CERTIFIER OR LAB: **UL GreenGuard**

<https://spot.ulprospector.com/en/na/BuiltEnvironment/Detail/32846/662417/Earthwool-Insulation-Board-and-Acoustical-Board-with-ECOSE-Technology?st=1&sl=50830723&crit=SW5zdWxhdGlvbiA%2bIEtuYXVmlEluc3VsYXRpb24%3d&ss=2>

CERTIFICATION AND COMPLIANCE NOTES:

VOC CONTENT

UL Environmental Claim Validation - Recycled content

CERTIFYING PARTY: **Third Party**
APPLICABLE FACILITIES: **Shelbyville, IN**
CERTIFICATE URL:

ISSUE DATE:	EXPIRY DATE:	CERTIFIER OR LAB:
2012-08-10	2018-07-20	UL Environmental

<https://spot.ulprospector.com/en/na/BuiltEnvironment/Detail/32846/665554/Knauf-Earthwool-Insulation-Board-with-ECOSE-Technology?st=1&sl=50831443&crit=SW5zdWxhdGlvbiA%2bIEtuYXVmlEluc3VsYXRpb24gPiBSZWN5Y2xlZCBDb250ZW50IC0gQ2xhaW0gVmFsaWRhdGlvbg%3d%3d&ss=2>

CERTIFICATION AND COMPLIANCE NOTES:

FORMALDEHYDE CONTENT

UL Environmental Claim Validation - Formaldehyde Free

CERTIFYING PARTY: **Third Party**
APPLICABLE FACILITIES: **Shelbyville, IN**
CERTIFICATE URL:

ISSUE DATE: **2011-07-11** EXPIRY DATE: **2017-11-07** CERTIFIER OR LAB: **UL Air Quality Sciences**

<https://spot.ulprospector.com/en/na/BuiltEnvironment/Detail/32846/662417/Earthwool-Insulation-Board-and-Acoustical-Board-with-ECOSE-Technology?st=1&sl=50830723&crit=SW5zdWxhdGlvbiA%2bIEtuYXVmlEluc3VsYXRpb24%3d&ss=2>

CERTIFICATION AND COMPLIANCE NOTES: **Knauf glass mineral fiber board products are the only formaldehyde free options in this product category**

OTHER

EUCEB

CERTIFYING PARTY: **Third Party**
APPLICABLE FACILITIES: **All Knauf Facilities Worldwide**
CERTIFICATE URL: http://www.bcca.be/index.cfm?cat=search&action=certification_customer&customer_id=19600

ISSUE DATE: **2017-01-01** EXPIRY DATE: **2017-10-15** CERTIFIER OR LAB: **BCCA**

CERTIFICATION AND COMPLIANCE NOTES: **A voluntary audit program to demonstrate that are product formulations meet the exoneration criteria.**

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

BUTT STRIP TAPE

HPD URL: **NO HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Butt strip tape joint taping product made with the same ingredients as the vapor retarder facing materials listed in the product description.

BUTT STRIP TAPE

HPD URL: **NO HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Butt strip tape joint taping product made with the same ingredients as the vapor retarder facing materials listed in the product description.

Section 5: General Notes

This product is supplied both unfaced, and with two vapor retarder options. This HPD provides composite product data with the two vapor retarder options,

MANUFACTURER INFORMATION

MANUFACTURER: **Knauf Insulation, Inc.**
 ADDRESS: **One Knauf Dr**
Shelbyville IN 46176, USA
 WEBSITE: **www.knaufinsulation.us**

CONTACT NAME: **Scott Miller**
 TITLE: **Dir. Sustainability and Product Affairs**
 PHONE: **317-512-1016**
 EMAIL: **scott.miller@knaufinsulation.com**

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

KEY

- Hazard Types**
- | | | |
|---------------------------------------|---|--|
| AQU Aquatic toxicity | LAN Land toxicity | PHY Physical hazard (flammable or reactive) |
| CAN Cancer | MAM Mammalian/systemic/organ toxicity | REP Reproductive |
| DEV Developmental toxicity | MUL Multiple | RES Respiratory sensitization |
| END Endocrine activity | NEU Neurotoxicity | SKI Skin sensitization/irritation/corrosivity |
| EYE Eye irritation/corrosivity | NF Not found on Priority Hazard Lists | UNK Unknown |
| GEN Gene mutation | OZO Ozone depletion | |
| GLO Global warming | PBT Persistent, bioaccumulative, and toxic | |
- GreenScreen (GS)**
- | | |
|---|--|
| BM-4 Benchmark 4 (prefer-safer chemical) | LT-1 List Translator 1 (Likely Benchmark-1) |
| BM-3 Benchmark 3 (use but still opportunity for improvement) | LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.) |
| BM-2 Benchmark 2 (use but search for safer substitutes) | NoGS No GreenScreen. |
| BM-1 Benchmark 1 (avoid - chemical of high concern) | |
| BM-U Benchmark Unspecified (due to insufficient data) | |
| LT-P1 List Translator Possible 1 (Possible Benchmark-1) | |
- Recycled Types**
- PreC** Pre-consumer recycled content
PostC Post-consumer recycled content
UNK Inclusion of recycled content is unknown
None Does not include recycled content
- Other Terms:**
- GHS SDS** Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet
- Inventory Methods:**
- Nested Method / Material Threshold** Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold Substances listed individually per threshold indicated per product
- Nano** Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,*
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.