

HPD UNIQUE IDENTIFIER: 21380

CLASSIFICATION: 23 07 13 Duct Insulation

PRODUCT DESCRIPTION: Knauf Insulation Atmosphere™ Duct Wrap with ECOSE® Technology is a thermal and acoustical insulation blanket made from highly resilient, inorganic glass mineral wool bonded by ECOSE® Technology. This product has a foil-scrim-kraft vapor retarder facer . The composite product is UL Classified as a 25/50 Flame Spread/Smoke Developed product from a fire hazard classification stand point. The product is designed as an insulator for the exterior of metal ducts. This product meets GREENGUARD Gold criteria from a an indoor air quality standpoint and is validated to be formaldehyde free by UL Environment. The recycled content is also validated annually by UL Environment.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
 Basic Method

Threshold Disclosed Per

- Material
 Product

Threshold level

- 100 ppm
 1,000 ppm
 Per GHS SDS
 Other

Residuals/Impurities

- Considered
 Partially Considered
 Not Considered

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

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.

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

ATMOSPHERE DUCT WRAP WITH FSK FACER [FIBER GLASS, BIOSOLUBLE AND/OR WITH ALKALINE OXIDE AND ALKALI EARTH OXIDE CONTENT ≤18 % BY WEIGHT LT-P1 | MUL GLUCOSE BM-3 KRAFT PAPER NoGS AMMONIUM SULFATE LT-P1 | END POLYVINYL ACETATE (PVA) LT-UNK ALUMINUM BM-1 | END | PHY | RES ALUMINA TRIHYDRATE BM-2 SILANE LT-UNK HALOGENATED FLAME RETARDANTS (HFRS) NoGS ANTIMONY TRIOXIDE BM-1 | CAN | MUL]

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:

This HPD was created using basic inventory. This inventory does represent 100% of ingredients.

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: Greenguard Gold
Formaldehyde emissions: Formaldehyde Free Validation
Recycled content: Recycled Content Validation
Other: EUCEB biosoluble fiber exoneration

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: 2020-08-10

PUBLISHED DATE: 2020-08-11

EXPIRY DATE: 2023-08-10



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

ATMOSPHERE DUCT WRAP WITH FSK FACER

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Partially

RESIDUALS AND IMPURITIES NOTES: It is known that a trace level of impurities can be found in the materials used to make this product.

OTHER PRODUCT NOTES: Trace impurities can be found in the minerals used to make glass. It is possible that bio-based materials could impurities associated with agriculture.

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

ID: 65997-17-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-08-10

%: 85.0100 - 85.0100

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 insulating fiber of the product. All Knauf Insulation processes are audited for compliance with the EUCEB exoneration process.

GLUCOSE

ID: 50-99-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-08-10

%: 5.1300 - 5.1300

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 'glue' that holds the fibers together. Gives the product it's brown color

KRAFT PAPER

ID: Not registered

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-08-10

%: 3.3300 - 3.3300

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: Part of the vapor retarder laminate. Lends flexibility and structure to the vapor retarder laminate

AMMONIUM SULFATE

ID: 7783-20-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-08-10		
%: 2.1900 - 2.1900	GS: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Binder
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor		

SUBSTANCE NOTES: Part of the cured/reacted binder adhesive mixture

POLYVINYL ACETATE (PVA)

ID: 9003-20-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-08-10		
%: 1.6400 - 1.6400	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: Adhesive that bonds the vapor retarder to the fiber glass blanket. Analogous to household white glue.

ALUMINUM

ID: 7429-90-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-08-10		
%: 1.1300 - 1.1300	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	Asthmagens (Rs) - sensitizer-induced		

SUBSTANCE NOTES: Part of the vapor retarder. This is aluminum foil, analogous to that found in a household, but thinner perhaps. Aluminum foil is not considered to be hazardous.

ALUMINA TRIHYDRATE

ID: 21645-51-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-08-10		
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%: **0.3300 - 0.3300**

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: Part of the vapor retarder laminate. The fire performance of this product is required to be 25FS/50SD

SILANE

ID: **7803-62-5**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-08-10**

%: **0.1500 - 0.1500**

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: Additive to promote adhesion of binder to the fiber. This is a cured coating and is not available as a liquid in the product

HALOGENATED FLAME RETARDANTS (HFRS)

ID: **Not registered**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-08-10**

%: **0.1300 - 0.1300**

GS: **NoGS**

RC: **UNK**

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: Part of the vapor retarder laminate. The fire performance of this product is required to be 25FS/50SD

ANTIMONY TRIOXIDE

ID: **1309-64-4**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-08-10**

%: **0.1300 - 0.1300**

GS: **BM-1**

RC: **None**

NANO: **No**

SUBSTANCE ROLE: **Flame retardant**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

CANCER

IARC

Group 2b - Possibly carcinogenic to humans

CANCER

EU - GHS (H-Statements)

H351 - Suspected of causing cancer

MULTIPLE

ChemSec - SIN List

CMR - Carcinogen, Mutagen &/or Reproductive Toxicant

CANCER

MAK

Carcinogen Group 2 - Considered to be carcinogenic for man

CANCER

CA EPA - Prop 65

Carcinogen

CANCER

US NIH - Report on Carcinogens

Reasonably Anticipated to be Human Carcinogen

CANCER

GHS - Japan

Carcinogenicity - Category 1B [H350]

SUBSTANCE NOTES: Part of the vapor retarder laminate. The fire performance of this product is required to be 25FS/50SD

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

Greenguard Gold

CERTIFYING PARTY: Third Party	ISSUE	EXPIRY	CERTIFIER OR LAB:
APPLICABLE FACILITIES: Shelbyville, IN where the product is manufactured	DATE:	DATE:	Greenguard
CERTIFICATE URL:	2009-		UL
https://spot.ulprospector.com/en/na/BuiltEnvironment/Detail/32846/662416/Atmosphere-Duct-Wrap-with-ECOSE-Technology?st=1&sl=47678479&crit=SW5zdWxhdGlvbiA%2bIEtuYXVmIEluc3VsYXRpb24%3d&ss=2	11-13		
CERTIFICATION AND COMPLIANCE NOTES: Both faced and unfaced products are certified			

FORMALDEHYDE EMISSIONS

Formaldehyde Free Validation

CERTIFYING PARTY: Third Party	ISSUE	EXPIRY	CERTIFIER OR LAB:
APPLICABLE FACILITIES: Shelbyville, Indiana where the product is manufactured	DATE:	DATE:	Greenguard
CERTIFICATE URL:	2011-	2017-	UL
https://spot.ulprospector.com/en/na/BuiltEnvironment/Detail/32846/662416/Atmosphere-Duct-Wrap-with-ECOSE-Technology?st=1&sl=47678479&crit=SW5zdWxhdGlvbiA%2bIEtuYXVmIEluc3VsYXRpb24%3d&ss=2	07-20	11-04	
CERTIFICATION AND COMPLIANCE NOTES:			

RECYCLED CONTENT

Recycled Content Validation

CERTIFYING PARTY: Third Party	ISSUE	EXPIRY	CERTIFIER OR LAB:
APPLICABLE FACILITIES: Shelbyville, IN where the product is manufactured	DATE:	DATE:	UI Enviromental
CERTIFICATE URL:	2012-	2018-	
https://spot.ulprospector.com/en/na/BuiltEnvironment/Detail/32846/656143/Earthwool-1000-Pipe-Insulation-with-ECOSE-Technology?st=1&sl=48156413&crit=SW5zdWxhdGlvbiA%2bIEtuYXVmIEluc3VsYXRpb24%3d&ss=2	08-10	07-20	
CERTIFICATION AND COMPLIANCE NOTES:			

OTHER

EUCEB biosoluble fiber exoneration

CERTIFYING PARTY: Third Party	ISSUE	EXPIRY	CERTIFIER OR LAB:
APPLICABLE FACILITIES: Shelbyville, IN where the product is manufactured	DATE:	DATE:	http://www.euceb.org/uploads/Modules/Plants/404.pdf
CERTIFICATE URL:	2011-		
http://www.euceb.org/uploads/Modules/Plants/404.pdf	10-11		
CERTIFICATION AND COMPLIANCE NOTES:			

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.

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

To staple the facer overlap once placed on the duct and the tape to seal the stapled lap

Section 5: General Notes

The vapor retarder laminate used on this product must meet very stringent fire requirements and therefor has fire retarding materials. Because the materials are bound within the adhesive it is highly unlikely that there is exposure potential during installation or in-service.

MANUFACTURER INFORMATION

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

CONTACT NAME: **Scott Miller**
TITLE: **Director 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.