

CLASSIFICATION: 23 07 13 Duct Insulation

created via: HPDC Online Builder

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
- Per OSHA MSDS
- Other

Residuals/Impurities

- Considered
- Partially Considered
- Not Considered

Explanation(s) provided for Residuals/Impurities?

- Yes
- No

Are All Substances Above the Threshold Indicated:

Characterized Yes No
Percent Weight and Role Provided?

Screened Yes No
Using Priority Hazard Lists with Results Disclosed?

Identified Yes No
Name and Identifier Provided?

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.

Number of Greenscreen BM-4/BM3 contents..... 1
Contents highest concern GreenScreen Benchmark or List translator Score..... BM-1
Nanomaterial..... No

MATERIAL | **SUBSTANCE** | *RESIDUAL OR IMPURITY*
GREENSCREEN SCORE | **HAZARD TYPE**

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

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

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared
VERIFIER:
VERIFICATION #:

SCREENING DATE: 2017-07-20
PUBLISHED DATE: 2017-08-24
EXPIRY DATE: 2020-07-20

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 2.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-standard

COMPOSITE ATMOSPHERE DUCT WRAP PRODUCT

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

RC: Both	NANO: No	ROLE: The insulating fiber of the product
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: All Knauf Insulation processes are audited for compliance with the EUCEB exoneration process.

GLUCOSE

ID: 50-99-7

RC: None	NANO: No	ROLE: The primary portion of the binder adhesive giving the product shape
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Gives the product it's brown color

KRAFT PAPER

ID: Not registered

RC: UNK	NANO: No	ROLE: Part of the vapor retarder laminate
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Lends flexibility and structure to the vapor retarder laminate

AMMONIUM SULFATE

ID: 7783-20-2

GS: LT-P1	RC: None	NANO: No	ROLE: Part of the cured/reacted binder adhesive mixture
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HAZARDS:

AGENCY(IES) WITH 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

GS: LT-UNK	RC: None	NANO: No	ROLE: Adhesive that bonds the vapor retarder to the fiber glass basewool
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Analogous to household white glue.

ALUMINUM

ID: 7429-90-5

GS: LT-P1	RC: None	NANO: No	ROLE: Part of the vapor retarder
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (ARs) - sensitizer-induced - inhalable forms only

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H228 - Flammable solid

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

SUBSTANCE NOTES: 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

GS: BM-2	RC: None	NANO: No	ROLE: Part of the vapor retarder laminate
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (ARs) - sensitizer-induced - inhalable forms only

SUBSTANCE NOTES: The fire performance of this product is required to be 25FS/50SD

#: **0.1500 - 0.1500** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Additive to promote adhesion of binder to the fiber**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: This is a cured coating and is not available as a liquid in the product

HALOGENATED FLAME RETARDANTS (HFRS)

ID: **Not registered**

#: **0.1300 - 0.1300** GS: **NoGS** RC: **UNK** NANO: **No** ROLE: **Part of the vapor retarder laminate**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: The fire performance of this product is required to be 25FS/50SD

ANTIMONY TRIOXIDE

ID: **1309-64-4**

#: **0.1300 - 0.1300** GS: **BM-1** RC: **None** NANO: **No** ROLE: **Part of the vapor retarder laminate**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

MAMMALIAN

EU - R-phrases

R20 - Harmful by Inhalation (gas or vapor or dust/mist)

MAMMALIAN

EU - R-phrases

R22 - Harmful if Swallowed

CANCER

EU - R-phrases

R40 - Limited Evidence of Carcinogenic Effects

ACUTE AQUATIC

EU - R-phrases

R51 - Toxic to Aquatic Organisms

CANCER

IARC

Group 2b - Possibly carcinogenic to humans

CANCER

CA EPA - Prop 65

Carcinogen

CHRON AQUATIC

EU - GHS (H-Statements)

H411 - Toxic to aquatic life with long lasting effects

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

SUBSTANCE NOTES: 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

VOC CONTENT

Greenguard Gold

CERTIFYING PARTY: Third Party	ISSUE	EXPIRY	CERTIFIER OR LAB:
APPLICABLE FACILITIES: Shelbyville, IN where the product is manufactured	DATE:2009-	DATE:	Greenguard
CERTIFICATE URL: https://spot.ulprospector.com/en/na/BuiltEnvironment/Detail/32846/662416/Atmosphere-Duct-Wrap-with-ECOSE-Technology?st=1&sl=47678479&crit=SW5zdWxhdGlvbiA%2bIEtuYXVmlEluc3VsYXRpb24%3d&ss=2	11-13	2017-	UL
		11-07	
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:2011-	DATE:	Greenguard
CERTIFICATE URL: https://spot.ulprospector.com/en/na/BuiltEnvironment/Detail/32846/662416/Atmosphere-Duct-Wrap-with-ECOSE-Technology?st=1&sl=47678479&crit=SW5zdWxhdGlvbiA%2bIEtuYXVmlEluc3VsYXRpb24%3d&ss=2	07-20	2017-	UL
		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:2012-	DATE:	UI Enviromental
CERTIFICATE URL: https://spot.ulprospector.com/en/na/BuiltEnvironment/Detail/32846/656143/Earthwool-1000-Pipe-Insulation-with-ECOSE-Technology?st=1&sl=48156413&crit=SW5zdWxhdGlvbiA%2bIEtuYXVmlEluc3VsYXRpb24%3d&ss=2	08-10	2018-	
		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:2011-	DATE:	http://www.euceb.org/uploads/Modules/Plants/404.pdf
CERTIFICATE URL: 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.

STAPLES OR FSK TAPE OF THE SAME CONSTRUCTION OF THE VAPOR RETARDER FACER

HPD URL: **No HPD link provided**

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 therefore 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.

Section 6: References

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**

KEY

OSHA MSDS

Occupational Safety and Health Administration Material Safety Data Sheet

GHS SDS

Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

AQU Aquatic toxicity

CAN Cancer

DEV Developmental toxicity

END Endocrine activity

EYE Eye irritation/corrosivity

GEN Gene mutation

GLO Global warming

MAM Mammalian/systemic/organ toxicity

MUL Multiple hazards

NEU Neurotoxicity

OZO Ozone depletion

PBT Persistent Bioaccumulative Toxic

PHY Physical Hazard (reactive)

REP Reproductive toxicity

RES Respiratory sensitization

SKI Skin sensitization/irritation/corrosivity

LAN Land Toxicity

NF Not found on Priority Hazard Lists

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)

BM-3 Benchmark 3 (use but still opportunity for improvement)

BM-2 Benchmark 2 (use but search for safer substitutes)

BM-1 Benchmark 1 (avoid - chemical of high concern)

BM-U Benchmark Unspecified (insufficient data to benchmark)

LT-P1 List Translator Possible Benchmark 1

LT-1 List Translator Likely Benchmark 1

LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)

NoGS Unknown (no data on List Translator Lists)

Recycled Types

PreC Preconsumer (Post-Industrial)

PostC Postconsumer

Both Both Preconsumer and Postconsumer

Unk Inclusion of recycled content is unknown

None Does not include recycled content

Other Terms

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.