Alley Wrap B by Knauf Insulation, Inc.

CLASSIFICATION: 23 07 13 Duct Insulation PRODUCT DESCRIPTION: Manson Alley Wrap™ 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 C Nested Materials Method C Basic Method Threshold Disclosed Per	Threshold level © 100 ppm © 1,000 ppm © Per GHS SDS	Residuals/Impur C Considered Partially Conside Not Considered		Are All Substances Above the Threshold Indicated: Characterized Percent Weight and Role Provided?	© Yes ◯ No	
Material Product	C Per OSHA MSDS C Other	Explanation(s) provided for Residuals/Impurities? Yes O No		Screened Using Priority Hazard Lists with Results Disclosed? Identified Name and Identifier Provided?	⊙ Yes ○ No ○ Yes ⊙ No	
CONTENT IN DESCENDING ORDER OF QUANTITY Summary of product contents and results from screening indivit the GreenScreen for Safer Chemicals®. The HPD does not asses individuals to its chemical substances or any health risk. Refer the MATERIAL J SUBSTANCE <i>RESIDUAL OR IMPURITY</i> GREENSCREEN SCORE HAZARD TYPE ALLEY WRAP B [FIBER GLASS, BIOSCUBLE AND/OR WITH % BY WEIGHT LITJUK GLUCOSE BM. KRAFT PAPER NOS (PVA) LT-UNK ALUMINUM LT-PI [RES END PHY ALUMINA T FLAME RETARDANTS (HFRS) NOS ANTIMONY TRIOXIDE BM	ss whether using or handling this product will o Section 2 for further details. ALKALINE OXIDE AND ALKALI EARTH OXID AMMONIUM SULFATE LT-P1 END POLYVI TRIHYDRATE BM.2 RES SILANE LT-UNK H	expose DE CONTENT ≤18 NYL ACETATE	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 COMPL VOC emissions: Greenguard Gold Formaldehyde emissions: Formaldhyde Recycled content: Recycled Content V Other: EUCEB biosoluble fiber exonera CONSISTENCY WITH OTHER PROGR Pre-checked for LEED v4 Material Ingr	e Free Validation alidation tition		
Third Party Verified? Ĉ Yes Ĉ No	PREPARER: Self-Prepared VERIFIER: VERIFICATION #:			SCREENING DATE: 2017-07-20 PUBLISHED DATE: EXPIRY DATE: 2020-07-20		

Alley Wrap B hpdrepository.hpd-collaborative.org 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 atwww.hpd-collaborative.org/hpd-2-1-standard

ALLEY WRAP B		
PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES CONSIDERED: Partially	
RESIDUALS AND IMPURITIES NOTES: It is known that a	a trace level of impurities can be found in the materials used to make this product.	
OTHER PRODUCT NOTES: Trace impurities can be f	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 ALK	ALINE OXIDE AND ALKALI EARTH OXIDE CONTENT ≤18 % BY WEIGHT	ID: 65997-17-3
%: 85.0100 - 85.0100	GS: LT-UNK RC: Both NANO: No ROLE: The insulating fiber of the product	
HAZARDS:	AGENCY[JES] WITH WARNINGS:	
None Found	No warnings found on HPD Priority lists	
SUBSTANCE NOTES: All Knauf Insulation processes a	re audited for compliance with the EUCEB exoneration process.	
1		
GLUCOSE		ID: 50-99-7
%: 5.1300 - 5.1300	GS: BM-3 RC: None NANC: No ROLE: The primary portion of the binder adhesive giving the product shape	
HAZARDS:	AGENCY()ES) WITH WARNINGS:	
None Found	No warnings found on HPD Priority lists	
SUBSTANCE NOTES: Gives the product it's brown col	lor	
KRAFT PAPER		ID: Not registered
%: 3.3300 - 3.3300	GS: NOGS RC: UNK NANO: NO ROLE: Part of the vapor retarder laminate	
HAZARDS:	AGENCY[JES] WITH WARNINGS:	
None Found	No warnings found on HPD Priority lists	
SUBSTANCE NOTES: Lends flexibility and structure to	the vapor retarder laminate	
1		
AMMONIUM SULFATE		ID: 7783-20-2
%: 2.1900 - 2.1900	GS: LT-P1 RC: None NANO: No ROLE: Part of the cured/reacted binder adhesive mixture	
HAZARDS: ENDOCRINE	AGENCY[JES] WITH WARNINGS: TEDX - Potential Endocrine Disruptors Potential Endocrine Disruptor	
SUBSTANCE NOTES: Part of the cured/reacted binder	r adhesive mixture	
•		
POLYVINYL ACETATE (PVA)		ID: 9003-20-7
%: 1.6400 - 1.6400	GS: LT-UNK RO: None NANO: NO ROLE: Adhsive that bonds the vapor retarder to the fiber glass basewool	
HAZARDS:	AGENCY[JES] WITH WARNINGS:	
None Found	No warnings found on HPD Priority lists	
SUBSTANCE NOTES: Analogous to household white g	jue.	
T		
ALUMINUM		ID: 7429-90-5
%: 1.1300 - 1.1300	GS: LT-P1 RC: None NANO: No ROLE: Part of the vapor retarder	
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-Stateme	nts)		H261 - In contact with water releases flammable gases	
SUBSTANCE NOTES: This is aluminum foil, analog	ous to that found in a household	l, but thinner perhap	s. Aluminum foil is not co	nsidered to be hazardous.	
ALUMINA TRIHYDRATE					ID: 21645-51-2
%: 0.3300 - 0.3300	GS: BM-2	RC: None	NANO: NO	ROLE: Part of the vapor retarder laminate	
HAZARDS:	AGENCY(IES) WITH WARNING	S:			
RESPIRATORY	AOEC - Asthmagens			Asthmagen (ARs) - sensitizer-induced - inhalable forms only	
SUBSTANCE NOTES: The fire performance of this	product is required to be 25FS/	50SD			
SILANE					ID: 7803-62-5
%: 0.1500 - 0.1500	GS: LT-UNK	RC: None	NANO: NO	ROLE: Additive to promte adhesion of binder to the fiber	
HAZARDS:	AGENCY(IES) WITH WARNING	S:			

No warnings found on HPD Priority lists

None Found

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:	GENCY[JES] WITH WARNINGS:					
None Found No warnings found on HPD Priority lists							

 $\ensuremath{\mathsf{SUBSTANCE}}\xspace$ notes: The fire performance of this product is required to be 25FS/50SD

ANTIMONY TRIOXIDE				ID: 1309-6
%: 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-Statemen	ts)		H411 - Toxic to aquatic life with long lasting effects
CANCER	EU - GHS (H-Statemen	ts)		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

 $\ensuremath{\mathsf{SUBSTANCE}}\xspace$ notes: The fire performance of this product is required to be 25FS/50SD

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	
APPLICABLE FACILITIES: Shelbyville, IN where the product is manufactured	DATE:	DATE:	LAB:	
certificate upl: https://spot.ul.com/main-app/products/detail/5ad1f1e655b0e82d946ad90a?	2009-	2019-	Greengua	
filter=Product%2520Type%3AInsulation,Manufacturer%2520%252F%2520Brands%3AManson%2520Insulation%2520Products%2520Ltd.&page_type=Products%20Catalog	11-13	11-13	UL	

CERTIFICATION AND COMPLIANCE NOTES: Both faced and unfaced products are certified

FORMALDEHYDE EMISSIONS

CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Shelbyville, Indiana where the product is manufactured	ISSUE DATE:	EXPIRY DATE:	CERTIFIER OR
CERTIFICATE URL: https://spot.ul.com/main-app/products/detail/5ad1f1e655b0e82d946ad90a?		2019-	Greengua
filter=Product%2520Type%3AInsulation,Manufacturer%2520%252F%2520Brands%3AManson%2520Insulation%2520Products%2520Ltd.&page_type=Products%20Catalog	07-20	09-04	UL

CERTIFICATION AND COMPLIANCE NOTES:

RECYCLED CONTENT			
ertifying party: Third Party pplicable facilities: Shelbyville, IN where the product is manufactured		EXPIRY DATE:	CERTIFIER OF
certiFicate urL: https://spot.ul.com/main-app/products/detail/5ad1f1e655b0e82d946ad90a? filter=Product%2520Type%3AInsulation,Manufacturer%2520%252F%2520Brands%3AManson%2520Insulation%2520Products%2520Ltd.&page_type=Products%20Catalog	2012- 08-10		Enviromer
CERTIFICATION AND COMPLIANCE NOTES:			

OTHER EUCEB biosoluble fiber exoretion CERTIFYING PARTY: Third Party ISSUE DATE: 2011-10-11 APPLICABLE FACILITIES: Shelbyville, IN where the product is manufactured certificate unti- http://www.euceb.org/uploads/Modules/Plants/404.pdf

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 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.

Formaldhyde Free

MANUFACTURER INFORMATION

MANUFACTURER: Knauf Insulation, Inc. Address: One knauf Drive

Shelbyville IN 46176, USA

WEBSITE: knaufinsulation.us

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

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 (insuficient data to benchmark)

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 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

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)

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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 TranslatorTM, 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