

HPD UNIQUE IDENTIFIER: 28848

CLASSIFICATION: 07 27 36 Sprayed Foam Air Barrier

PRODUCT DESCRIPTION: PERMAX 2.0 HFO is a 2-component polyurethane spray foam system consisting of Components (Parts) A and B, which when sprayed through special plural component spray equipment, will produce a premium seamless, monolithic, and durable closed-cell polyurethane foam air barrier / insulation / vapor retarder suitable for residential and commercial wall applications.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

<p>Inventory Reporting Format</p> <p><input type="radio"/> Nested Materials Method</p> <p><input checked="" type="radio"/> Basic Method</p> <p>Threshold Disclosed Per</p> <p><input type="radio"/> Material</p> <p><input checked="" type="radio"/> Product</p>	<p>Threshold Level</p> <p><input checked="" type="radio"/> 100 ppm</p> <p><input type="radio"/> 1,000 ppm</p> <p><input type="radio"/> Per GHS SDS</p> <p><input type="radio"/> Other</p>	<p>Residuals/Impurities</p> <p><input checked="" type="radio"/> Considered</p> <p><input type="radio"/> Partially Considered</p> <p><input type="radio"/> Not Considered</p> <p>Explanation(s) provided for Residuals/Impurities?</p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>	<p><i>All Substances Above the Threshold Indicated Are:</i></p> <p>Characterized <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>% weight and role provided for all substances.</i></p> <p>Screened <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>All substances screened using Priority Hazard Lists with results disclosed.</i></p> <p>Identified <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>All substances disclosed by Name (Specific or Generic) and Identifier.</i></p>
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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

PERMAX 2.0 HFO - B COMPONENT [1,3-BENZENEDIAMINE, AR-METHYL-, POLYMER WITH OXIRANE **LT-UNK** TRIS(1-CHLORO-2-PROPYL)PHOSPHATE (TCP, TMCP) **BM-U** | END | MUL | PBT 1,2-BENZENEDICARBOXYLIC ACID, 3,4,5,6-TETRABROMO-, MIXED ESTERS WITH DIETHYLENE GLYCOL AND PROPYLENE GLYCOL **LT-1** | PBT | MUL 1,2-ETHANEDIAMINE, POLYMER WITH 2-METHYLOXIRANE AND OXIRANE **LT-UNK** POLY(OXY(METHYL-1,2-ETHANEDIYL)), ALPHA,ALPHS'-(OXYDI-2,1-ETHANEDIYL)BIS(OMEGA-HYDROXY- **LT-UNK** CHLOROTRIFLUOROPROPENE **NoGS** WATER **BM-4** (DIMETHYLAMINO)CYCLOHEXANE **LT-P1** | MUL 2,4,6-TRI(DIMETHYLAMINOMETHYL)PHENOL **LT-UNK** | SKI | EYE DIETHYLTOLUENEDIAMINE **LT-P1** | MUL | EYE | AQU **ETHYLENE GLYCOL** **LT-1** | END | DEV]

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

Contents highest concern GreenScreen Benchmark or List translator Score ... LT-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

None

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: Self-declared

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

<p>Third Party Verified?</p> <p><input type="radio"/> Yes</p> <p><input checked="" type="radio"/> No</p>	<p>PREPARER: Self-Prepared</p> <p>VERIFIER:</p> <p>VERIFICATION #:</p>	<p>SCREENING DATE: 2022-06-22</p> <p>PUBLISHED DATE: 2022-06-22</p> <p>EXPIRY DATE: 2025-06-22</p>
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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

PERMAX 2.0 HFO - B COMPONENT

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: No residual and impurity notes

OTHER PRODUCT NOTES: None

1,3-BENZENEDIAMINE, AR-METHYL-, POLYMER WITH OXIRANE

ID: 63641-64-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-06-22 13:36:38

#: 30.0000 - 50.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Monomer

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

SUBSTANCE NOTES: Reacts upon application

TRIS(1-CHLORO-2-PROPYL)PHOSPHATE (TCPP, TMCP)

ID: 13674-84-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-06-22 13:36:38

#: 10.0000 - 15.0000

GS: BM-U

RC: None

NANO: No

SUBSTANCE ROLE: Flame retardant

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - ongoing chemical (risk) assessment
PBT	EHP - San Antonio Statement on BFRs & CFRs	Flame retardant substance class of concern for PB&T & long range transport

SUBSTANCE NOTES: None

1,2-BENZENEDICARBOXYLIC ACID, 3,4,5,6-TETRABROMO-, MIXED ESTERS WITH DIETHYLENE GLYCOL AND PROPYLENE GLYCOL

ID: 77098-07-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-06-22 13:36:39

#: 5.0000 - 15.0000

GS: LT-1

RC: None

NANO: No

SUBSTANCE ROLE: Flame retardant

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
MUL	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - ongoing chemical (risk) assessment
PBT	EHP - San Antonio Statement on BFRs & CFRs	Flame retardant substance class of concern for PB&T & long range transport

SUBSTANCE NOTES: None

1,2-ETHANEDIAMINE, POLYMER WITH 2-METHYLOXIRANE AND OXIRANE

ID: 26316-40-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-06-22 13:36:39		
%: 5.0000 - 10.0000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Monomer
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		

SUBSTANCE NOTES: Reacts upon application

POLY(OXY(METHYL-1,2-ETHANEDIYL)), ALPHA,ALPHS'-(OXYDI-2,1-ETHANEDIYL)BIS(OMEGA-HYDROXY-

ID: 9051-51-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-06-22 13:36:40		
%: 5.0000 - 10.0000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Monomer
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		

SUBSTANCE NOTES: None

CHLOROTRIFLUOROPROPENE

ID: 102687-65-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-06-22 13:36:40		
%: 5.0000 - 15.0000	GS: NoGS	RC: None	NANO: No	SUBSTANCE ROLE: Blowing agent
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		

SUBSTANCE NOTES: HFO based, 0 GWP

WATER

ID: 7732-18-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-06-22 13:36:41		
%: 1.0000 - 5.0000	GS: BM-4	RC: None	NANO: No	SUBSTANCE ROLE: Blowing agent

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

(DIMETHYLAMINO)CYCLOHEXANE

ID: 98-94-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-06-22 13:36:41		
%: 0.1000 - 10.0000	GS: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Catalyst
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters		
SUBSTANCE NOTES: None				

2,4,6-TRI(DIMETHYLAMINOMETHYL)PHENOL

ID: 90-72-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-06-22 13:36:42		
%: 0.0000 - 5.0000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Catalyst
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]		
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]		
SUBSTANCE NOTES: None				

DIETHYLTOLUENEDIAMINE

ID: 68479-98-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-06-22 13:36:42		
%: 0.0000 - 5.0000	GS: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Catalyst
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters		
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]		
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]		
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]		
SUBSTANCE NOTES: None				

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-06-22 13:36:43**

%: **Impurity/Residual** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
DEV	CA EPA - Prop 65	Developmental toxicity
DEV	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity

SUBSTANCE NOTES: Reacts upon application

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

Self-declared

CERTIFYING PARTY: Self-declared

APPLICABLE FACILITIES: All Henry facilities

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: None

ISSUE DATE: 2020-03-30

EXPIRY DATE:

CERTIFIER OR LAB: Henry Company

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.

PERMAX A COMPONENT

HPD URL: <https://builder.hpd-collaborative.org/products/1378>

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Used to form cured foam.

Section 5: General Notes

No general notes for this product.

MANUFACTURER INFORMATION

MANUFACTURER: Henry Company
ADDRESS: 999 N. Pacific Coast Hwy
 Suite 800
 El Segundo CA 90245, USA
WEBSITE: www.henry.com

CONTACT NAME: Whitney Randall
TITLE: Director, Regulatory Compliance Systems
PHONE: 484-557-1247
EMAIL: wrandall@henry.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)	
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)	NoGS No GreenScreen.

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.