

CLASSIFICATION: 07 27 36.00

PRODUCT DESCRIPTION: PERMAX 2.5 is a 2-component polyurethane spray foam roof system consisting of RT-2035 Resin Components A and B, which when sprayed through special plural component spray equipment, will produce a premium seamless, monolithic, and durable closed-cell polyurethane foam roof. Surfacing with 'cool roof' or an elastomeric, multi-coat waterproofing coating applied, immediately onto underlying foam, will provide a complete UV and weather barrier roof system.

## 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

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

All substances disclosed by Name (Specific or Generic) and Identifier.

### 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](#)

2035FOAM [ 1,3-BENZENEDIAMINE, AR-METHYL-, POLYMER WITH OXIRANE **LT-UNK** POLY(OXY(METHYL-1,2-ETHANEDIYL)), ALPHA,ALPHS'-(OXYDI-2,1-ETHANEDIYL)BIS(OMEGA-HYDROXY- **LT-UNK** TRIS(1-CHLORO-2-PROPYL)PHOSPHATE (TCPP, TMCP) **BM-U** | END | PBT | MUL 1,2-ETHANEDIAMINE, POLYMER WITH 2-METHYLOXIRANE AND OXIRANE **LT-UNK** CHLOROTRIFLUOROPROPENE **NoGS** 1,2-BENZENEDICARBOXYLIC ACID, 3,4,5,6-TETRABROMO-, MIXED ESTERS WITH DIETHYLENE GLYCOL AND PROPYLENE GLYCOL **LT-1** | PBT | MUL (DIMETHYLAMINO)CYCLOHEXANE **LT-P1** | MUL WATER **BM-4** ETHYLENE GLYCOL **BM-1** | DEL | END ]

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:

No inventory and screening notes

### 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

Third Party Verified?

- Yes  
 No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2020-03-30

PUBLISHED DATE: 2020-03-30

EXPIRY DATE: 2023-03-30



## 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 2.1.1, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-1-1-standard](http://www.hpd-collaborative.org/hpd-2-1-1-standard)

### 2035FOAM

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities considered

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: 2020-03-30

?: 30.00 - 50.00

GS: LT-UNK

RC: None

NANO: No

ROLE: Urethane Component

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: 2020-03-30

?: 15.00 - 20.00

GS: LT-UNK

RC: None

NANO: No

ROLE: Urethane Component

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: 2020-03-30

?: 10.00 - 15.00

GS: BM-U

RC: None

NANO: No

ROLE: Flame retardant

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

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: **2020-03-30**

#: **5.00 - 10.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Urethane component**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found**

**No warnings found on HPD Priority Hazard Lists**

SUBSTANCE NOTES: **Reacts upon application**

### CHLOROTRIFLUOROPROPENE

ID: **102687-65-0**

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

HAZARD SCREENING DATE: **2020-03-30**

#: **5.00 - 10.00**

GS: **NoGS**

RC: **None**

NANO: **No**

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**

### 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: **2020-03-30**

#: **3.00 - 10.00**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Flame retardant**

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

SUBSTANCE NOTES: **None**

### (DIMETHYLAMINO)CYCLOHEXANE

ID: **98-94-2**

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

HAZARD SCREENING DATE: **2020-03-30**

#: **0.10 - 5.00**      GS: **LT-P1**      RC: **None**      NANO: **No**      ROLE: **Catalyst**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters

SUBSTANCE NOTES: **None**

### WATER

ID: **7732-18-5**

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

HAZARD SCREENING DATE: **2020-03-30**

#: **0.10 - 2.00**      GS: **BM-4**      RC: **None**      NANO: **No**      ROLE: **Foam aid**

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

SUBSTANCE NOTES: **None**

### ETHYLENE GLYCOL

ID: **107-21-1**

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

HAZARD SCREENING DATE: **2020-03-30**

#: **Impurity/Residual**      GS: **BM-1**      RC: **None**      NANO: **No**      ROLE: **Impurity/Residual**

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

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**

ISSUE DATE: **2020-**

EXPIRY DATE:

CERTIFIER OR LAB: **Henry**

APPLICABLE FACILITIES: **All Henry facilities**

**03-30**

**Company**

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: **None**

## 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 create cured foam.

## Section 5: General Notes

No additional substance 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**

## 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

<b>AQU</b> Aquatic toxicity	<b>GLO</b> Global warming	<b>PHY</b> Physical Hazard (reactive)
<b>CAN</b> Cancer	<b>MAM</b> Mammalian/systemic/organ toxicity	<b>REP</b> Reproductive toxicity
<b>DEV</b> Developmental toxicity	<b>MUL</b> Multiple hazards	<b>RES</b> Respiratory sensitization
<b>END</b> Endocrine activity	<b>NEU</b> Neurotoxicity	<b>SKI</b> Skin sensitization/irritation/corrosivity
<b>EYE</b> Eye irritation/corrosivity	<b>OZO</b> Ozone depletion	<b>LAN</b> Land Toxicity
<b>GEN</b> Gene mutation	<b>PBT</b> Persistent Bioaccumulative Toxic	<b>NF</b> Not found on Priority Hazard Lists

### GreenScreen (GS)

<b>BM-4</b> Benchmark 4 (prefer-safer chemical)	<b>LT-P1</b> List Translator Possible Benchmark 1
<b>BM-3</b> Benchmark 3 (use but still opportunity for improvement)	<b>LT-1</b> List Translator Likely Benchmark 1
<b>BM-2</b> Benchmark 2 (use but search for safer substitutes)	<b>LT-UNK</b> List Translator Unknown (insufficient information from List Translator lists to benchmark)
<b>BM-1</b> Benchmark 1 (avoid - chemical of high concern)	<b>NoGS</b> Unknown (no data on List Translator Lists)
<b>BM-U</b> Benchmark Unspecified (insufficient 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

### 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.*