

### Section 1: Summary

#### CONTENT INVENTORY

Threshold per  
material

- ☐ 100 ppm
- ☒ 1,000 ppm
- ☐ Per GHS SDS
- ☐ Per OSHA MSDS
- ☐ Other

Residuals and  
impurities

considered in  
1 of 2 materials

☒ see Section 2:

Material Notes

☒ see Section 5:

General Notes

Based on the selected Content Inventory Threshold:

Characterized.....

Are the Percent Weight and Role provided for all substances?

☒

Yes

☐

No

Screened.....

Are all substances screened using Priority Hazard Lists with results  
disclosed?

☐

Yes

☒

No

Identified.....

Are all substances disclosed by Name (Specific or Generic) and  
Identifier?

☒

Yes

☐

No

#### 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**

GAF 2-PART ROOFING ADHESIVE [ POLYMERIC MDI (PMDI) LT-UNK | RES | MUL | CAN  
METHYLENE BISPHENYL DIISOCYANATE (PURE MDI) LT-UNK | MAM | EYE | SKI | CAN | RES | MUL  
FIRE RETARDANT - TRADE SECRET UNK 1,1,1,2-TETRAFLUOROETHANE (HFC-134A) LT-UNK |  
NITROGEN UNK DIPHENYLMETHANE-2,4'- DIISOCYANATE (2,4'-MDI) LT-UNK | MAM | EYE | SKI | CAN  
| RES | MUL ] GAF 2-PART ROOFING ADHESIVE PART B [ PROPRIETARY POLYOL BLEND UNK  
1,1,1,2-TETRAFLUOROETHANE (HFC-134A) LT-UNK | PARAFFIN OIL LT-P1 | RES  
DIETHYLTOLUENEDIAMINE LT-P1 | MAM | EYE | AQU | MUL DIETHYLENE GLYCOL LT-UNK | MAM  
DIAMINOPOLYPROPYLENE GLYCOL LT-P1 | MUL NITROGEN UNK ]

Number of Greenscreen  
BM-4/BM3 contents.....  
0

Contents highest concern  
GreenScreen  
Benchmark or List  
translator Score.....  
LT-P1  
Nanomaterial..... No

#### INVENTORY AND SCREENING NOTES:

#### VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

#### CERTIFICATIONS AND COMPLIANCE

No certifications have been added to this HPD.

☒ Self-Published\*

VERIFIER:

SCREENING DATE: October 28, 2016

EXPIRY DATE\*: October 28, 2019

☐ Third Party Verified

VERIFICATION #:

RELEASE DATE: October 28, 2016

\* or within 3 months of significant change in product contents

\*See HPDC website for details



## Section 2: Content in Descending Order of Quantity

This section lists materials in a product and the substances in each material based on the Inventory Threshold for each material. If residuals or impurities from the manufacturing or extraction processes are considered for a material, these are inventoried and characterized to the extent described in the Material and/or General Notes. Chemical substances are screened against the HPD Priority Hazard Lists for human and environmental health impacts. Screening is based on best available information; "Not Found" does not necessarily mean there is no potential hazard associated with the product or its contents. More information about Priority Hazard Lists and the GreenScreen can be found online: [www.hpd-collaborative.org](http://www.hpd-collaborative.org) and [www.greenscreenchemicals.org](http://www.greenscreenchemicals.org).

### GAF 2-PART ROOFING ADHESIVE %: 40.0000 - 60.0000 HPD URL:

Inventory Threshold: 1000 ppm

Residuals Considered: No

Material Notes: Part A of 2-Part Foam

#### POLYMERIC MDI (PMDI)

ID: 9016-87-9

%: 40.0000 - 50.0000

GS: LT-UNK

RC: None

NANO: NO

ROLE: Component of Foam

#### HAZARDS:

#### AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (G) - generally accepted

RESTRICTED LIST

US EPA - PPT Chemical Action Plans

EPA Chemical of Concern - Action Plan published

RESPIRATORY

US EPA - PPT Chemical Action Plans

Inhalation sensitizer causing asthma and lung damage

CANCER

MAK

Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

RESPIRATORY

MAK

Sensitizing Substance Sah - Danger of airway & skin sensitization

#### SUBSTANCE NOTES:

#### METHYLENE BISPHENYL DIISOCYANATE (PURE MDI)

ID: 101-68-8

%: 25.0000 - 45.0000

GS: LT-UNK

RC: None

NANO: NO

ROLE: Part B of 2-Part Foam

#### HAZARDS:

#### AGENCY(IES) WITH WARNINGS:

MAMMALIAN

EU - R-phrases

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

EYE IRRITATION

EU - R-phrases

R36 - Irritating to eyes

SKIN IRRITATION

EU - R-phrases

R38 - Irritating to skin

CANCER

EU - R-phrases

R40 - Limited Evidence of Carcinogenic Effects

RESPIRATORY

EU - R-phrases

R42 - May cause sensitization by inhalation

SKIN SENSITIZE

EU - R-phrases

R43 - May cause sensitization by skin contact

ORGAN TOXICANT	EU - R-phrases	R48: Danger of serious damage to health by prolonged exposure.
RESPIRATORY	AOEC - Asthmagens	Asthmagen (G) - generally accepted
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
SKIN IRRITATION	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
RESPIRATORY	EU - GHS (H-Statements)	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
RESPIRATORY	US EPA - PPT Chemical Action Plans	Inhalation sensitizer causing asthma and lung damage
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: Part B of 2-Part Foam

FIRE RETARDANT - TRADE SECRET			ID:	
%: 10.0000 - 15.0000	GS: UNK	RC: None	NANO: NO	ROLE: Fire Retardant

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES:

1,1,1,2-TETRAFLUOROETHANE (HFC-134A)			ID: 811-97-2	
%: 5.0000 - 10.0000	GS: LT-UNK	RC: None	NANO: NO	ROLE: Blowing Agent

HAZARDS:		AGENCY(IES) WITH WARNINGS:
GLOBAL WARMING	US EPA - Global Warming Potentials	Global Warming Potential greater than 1,000

SUBSTANCE NOTES:

NITROGEN			ID: 7727-37-9	
%: 1.0000 - 5.0000	GS: UNK	RC: None	NANO: NO	ROLE: Blowing Agent

HAZARDS:		AGENCY(IES) WITH WARNINGS:		
None Found		No warnings found on HPD Priority lists		
SUBSTANCE NOTES:				
DIPHENYLMETHANE-2,4'- DIISOCYANATE (2,4'-MDI )		ID: 5873-54-1		
%: 0.5000 - 5.0000	GS: LT-UNK	RC: None	NANO: NO	ROLE: Part A of 2-Part Foam
HAZARDS:		AGENCY(IES) WITH WARNINGS:		
MAMMALIAN	EU - R-phrases	R20 - Harmful by Inhalation (gas or vapor or dust/mist)		
EYE IRRITATION	EU - R-phrases	R36 - Irritating to eyes		
SKIN IRRITATION	EU - R-phrases	R38 - Irritating to skin		
CANCER	EU - R-phrases	R40 - Limited Evidence of Carcinogenic Effects		
RESPIRATORY	EU - R-phrases	R42 - May cause sensitization by inhalation		
SKIN SENSITIZE	EU - R-phrases	R43 - May cause sensitization by skin contact		
ORGAN TOXICANT	EU - R-phrases	R48: Danger of serious damage to health by prolonged exposure.		
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published		
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation		
SKIN IRRITATION	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction		
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation		
RESPIRATORY	EU - GHS (H-Statements)	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled		
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer		
RESPIRATORY	US EPA - PPT Chemical Action Plans	Inhalation sensitizer causing asthma and lung damage		
SUBSTANCE NOTES:				

**GAF 2-PART ROOFING ADHESIVE PART B**    %: **40.0000 - 60.0000**    HPD URL:  
Inventory Threshold: 1000 ppm                      Residuals Considered: Yes  
Material Notes: Part B of 2 Part Foam

PROPRIETARY POLYOL BLEND			ID:	
%: 60.0000 - 70.0000	GS: UNK	RC: None	NANO: NO	ROLE: Polyol foam

HAZARDS:		AGENCY(IES) WITH WARNINGS:		
None Found		No warnings found on HPD Priority lists		
SUBSTANCE NOTES:				
1,1,1,2-TETRAFLUOROETHANE (HFC-134A)		ID: 811-97-2		
%: 10.0000 - 30.0000	GS: LT-UNK	RC: None	NANO: NO	ROLE: Blowing Agent
HAZARDS:		AGENCY(IES) WITH WARNINGS:		
GLOBAL WARMING		US EPA - Global Warming Potentials		Global Warming Potential greater than 1,000
SUBSTANCE NOTES:				
PARAFFIN OIL		ID: 8012-95-1		
%: 1.0000 - 10.0000	GS: LT-P1	RC: None	NANO: NO	ROLE: Lubricant
HAZARDS:		AGENCY(IES) WITH WARNINGS:		
RESPIRATORY		AOEC - Asthmagens		Asthmagen (G) - generally accepted
SUBSTANCE NOTES:				
DIETHYLTOLUENEDIAMINE		ID: 68479-98-1		
%: 1.0000 - 10.0000	GS: LT-P1	RC: None	NANO: NO	ROLE: Stabilizer
HAZARDS:		AGENCY(IES) WITH WARNINGS:		
MAMMALIAN	EU - R-phrases	R21 - Harmful in Contact with Skin		
MAMMALIAN	EU - R-phrases	R22 - Harmful if Swallowed		
EYE IRRITATION	EU - R-phrases	R36 - Irritating to eyes		
ORGAN TOXICANT	EU - R-phrases	R48: Danger of serious damage to health by prolonged exposure.		
ACUTE AQUATIC	EU - R-phrases	R50 - Very Toxic to Aquatic Organisms		
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life		
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects		
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation		
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters		

**SUBSTANCE NOTES:****DIETHYLENE GLYCOL**

ID: 111-46-6

%: 1.0000 - 10.0000

GS: LT-UNK

RC: None

NANO: NO

ROLE: Lubricant

**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

MAMMALIAN

EU - R-phrases

R22 - Harmful if Swallowed

**SUBSTANCE NOTES:****DIAMINOPOLYPROPYLENE GLYCOL**

ID: 9046-10-0

%: 1.0000 - 10.0000

GS: LT-P1

RC: None

NANO: NO

ROLE: Lubricant

**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

**SUBSTANCE NOTES:****NITROGEN**

ID: 7727-37-9

%: 0.1000 - 5.0000

GS: UNK

RC: None

NANO: NO

ROLE: Blowing Agent

**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

**SUBSTANCE NOTES:****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.

**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.



## Section 5: General Notes



### MANUFACTURER INFORMATION

MANUFACTURER: GAF

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### 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)

**UNK** 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

**Nano** Composed of nanoscale particles or nanotechnology

#### Declaration Level

**Self-declared** Manufacturer's self-declaration (First Party)

**Independent Lab** Manufacturer's self-declaration using results from an independent lab

**Second Party** Verification by trade association or other interested party

**Third Party** Verification by independent certifier

**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 does not provide an assessment of health impacts throughout the product life cycle. It does not provide an assessment of exposure or risk associated with product handling or use. It also does not address potential health impacts of: (i) substances used or created during the manufacturing process unless they remain in the final product, or (ii) substances created after the product is delivered for end use (e.g., if the product burns, degrades, or otherwise changes chemical composition).

The HPD Open Standard was created and is maintained and evolved by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry. The HPD Collaborative is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

A disclosure completed in compliance with the HPD Open Standard is referred to as a "Health Product Declaration," or "HPD." 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 Open Standard noted.