SpecSeal® FyreFlange[™] Firestop Angle by Specified Technologies Inc.

CLASSIFICATION: 07 84 00 Firestopping, 07 84 13 Penetration Firestopping

PRODUCT DESCRIPTION: FyreFlange™ Firestop Angles consist of galvanized steel retaining angles with a layer of bonded intumescent material designed to be installed around the perimeter of non-dampered square or rectangular steel ducts. Powder coated red for easy inspection and identification; FyreFlange™ Firestop Angles meet the exacting criteria of ASTM E814 (UL1479). Unlike traditional duct firestopping methods utilizing backer or packing materials, sealants, and angles installed and inspected in stages, FyreFlange™ Firestop Angle can be installed as the duct is installed and inspected just once after the installation is complete. FyreFlange™ is available as a pre-firestopped angle or as intumescent gasketing for field fabrication with 2" (51 mm) by 2" (51 mm) min 20 GA (or heavier) steel angles. Applications: FyreFlange™ Firestop Angles are engineered for use with steel ducts up to 92" x 96" (234 cm x 244 cm) installed through barriers rated up to and including 2 hours tested designs include options for non-insulated duct as well as ducts insulated with up to 2" (51 mm) thick 3/4 pcf (12 kg/m3) glass fiber duct wrap.

Section 1: Summary

CONTENT INVENTORY

- **Inventory Reporting Format**
- C Nested Materials Method Basic Method

Threshold Disclosed Per

C Material

• Product

C 100 ppm 1,000 ppm C Per GHS SDS C Per OSHA MSDS C Other

Residuals/Impurities

C Considered C Partially Considered Not Considered

> Explanation(s) provided for Residuals/Impurities? • Yes O No

Basic Method / Product Threshold

All Substances Above the Threshold Indicated Are:

Characterized	○ Yes Ex/SC ⊙ Yes ○ No
% weight and role provided for all sub	bstances.

Screened	○ Yes Ex/SC ⊙ Yes ○ No
All substances screened using Priority	Hazard Lists with results disclosed.

Identified

Number of Greenscreen BM-4/BM3 contents ... 0 Contents highest concern GreenScreen

Benchmark or List translator Score ... LT-1

INVENTORY AND SCREENING NOTES:

Nanomaterial ... No

None.

One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.

○ Yes Ex/SC ○ 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 ass 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

SPECSEAL® FYREFLANGE™ FIRESTOP ANGLE [GRAPHITE LT-UNK CELLULOSE PULP NoGS 2-PROPENOIC ACID, 2-METHYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETHENYLBENZENE, 2-ETHYLHEXYL 2-PROPENOATE AND METHYL 2-METHYL-2-PROPENOATE NoGS UNDISCLOSED LT-UNK CARBON BLACK LT-1 | CAN]

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: N/A

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1

Third Party Verified? C Yes • No

PREPARER: Self-Prepared VERIFIER VERIFICATION #:

SCREENING DATE: 2019-02-14 PUBLISHED DATE: 2019-04-30 EXPIRY DATE: 2022-02-14

Health Product Declaration v2.1.1

created via: HPDC Online Builder

Threshold level

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

RODUCT THRESHOLD: 1000 pp	pm	RESIDUALS ANI	RESIDUALS AND IMPURITIES CONSIDERED: No		
SIDUALS AND IMPURITIES NOTE	s: There are no residuals in this product.				
HER PRODUCT NOTES: There	are no residuals in this product.				
GRAPHITE				ID: 7782- -	
	aros Chemical and Materials Library	HAZARD SCREENING	DATE: 2019-02-14		
%: 6.00 - 8.00	GS: LT-UNK	RC: None	NANO: NO	ROLE: Intumescent	
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS			
	No hazards found				
SUBSTANCE NOTES. There are	no residuals in this product.				
SUBSTANCE NOTES. THERE are					
CELLULOSE PULP				id: 65996- -	
	aros Chemical and Materials Library	HAZARD SCREEN	ID: 651 HAZARD SCREENING DATE: 2019-02-14		
%: 4.00 - 6.00	GS: NoGS	RC: None	NANO: NO	ROLE: Filler	
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS			
	No hazards found				
SUBSTANCE NOTES: There are	no residuals in this material.				
2-PROPENOIC ACID, 2-ME	no residuals in this material. THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETH YL 2-METHYL-2-PROPENOATE	IENYLBENZENE, 2-ETHYLHEXYL	.2-	id: 82539- 1	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METH	THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETH	IENYLBENZENE, 2-ETHYLHEXYL		ID: 82539-	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METH	THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETH YL 2-METHYL-2-PROPENOATE	IENYLBENZENE, 2-ETHYLHEXYL		D SCREENING DATE: 2019-02-14	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METHY HAZARD SCREENING METHOD: Ph	THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETHYL 2-METHYL-2-PROPENOATE YL 2-METHYL-2-PROPENOATE aros Chemical and Materials Library	IENYLBENZENE, 2-ETHYLHEXYL	HAZARC	D SCREENING DATE: 2019-02-14	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METHY HAZARD SCREENING METHOD: Ph %: 0.50 - 2.00	THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETHYL 2-METHYL-2-PROPENOATE YL 2-METHYL-2-PROPENOATE aros Chemical and Materials Library GS: NoGS		HAZARC	D SCREENING DATE: 2019-02-14	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METHY HAZARD SCREENING METHOD: Ph %: 0.50 - 2.00 HAZARD TYPE	THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETHYL 2-METHYL-2-PROPENOATE YL 2-METHYL-2-PROPENOATE aros Chemical and Materials Library GS: NoGS AGENCY AND LIST TITLES		HAZARC	D SCREENING DATE: 2019-02-14	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METHY HAZARD SCREENING METHOD: Ph %: 0.50 - 2.00 HAZARD TYPE	THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETHYL 2-METHYL-2-PROPENOATE aros Chemical and Materials Library GS: NoGS AGENCY AND LIST TITLES No hazards found		HAZARC	D SCREENING DATE: 2019-02-14	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METHY HAZARD SCREENING METHOD: Ph %: 0.50 - 2.00 HAZARD TYPE	THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETHYL 2-METHYL-2-PROPENOATE aros Chemical and Materials Library GS: NoGS AGENCY AND LIST TITLES No hazards found		HAZARC	D SCREENING DATE: 2019-02-14	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METHY HAZARD SCREENING METHOD: Ph %: 0.50 - 2.00 HAZARD TYPE SUBSTANCE NOTES: There are UNDISCLOSED	THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETHYL 2-METHYL-2-PROPENOATE aros Chemical and Materials Library GS: NoGS AGENCY AND LIST TITLES No hazards found	WARNINGS	HAZARC	D SCREENING DATE: 2019-02-14	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METHY HAZARD SCREENING METHOD: Ph %: 0.50 - 2.00 HAZARD TYPE SUBSTANCE NOTES: There are UNDISCLOSED	THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETHYL 2-METHYL-2-PROPENOATE aros Chemical and Materials Library GS: NoGS AGENCY AND LIST TITLES No hazards found no residuals in this material.	WARNINGS	Hazare RC: No	D SCREENING DATE: 2019-02-14	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METHY HAZARD SCREENING METHOD: Ph %: 0.50 - 2.00 HAZARD TYPE SUBSTANCE NOTES: There are UNDISCLOSED HAZARD SCREENING METHOD: Ph	THYL-, POLYMER WITH BUTYL 2-PROPENOATE, ETH YL 2-METHYL-2-PROPENOATE aros Chemical and Materials Library GS: NoGS AGENCY AND LIST TITLES No hazards found e no residuals in this material.	WARNINGS	HAZARE RC: NO	D SCREENING DATE: 2019-02-14	
2-PROPENOIC ACID, 2-ME PROPENOATE AND METHY HAZARD SCREENING METHOD: Ph: %: 0.50 - 2.00 HAZARD TYPE SUBSTANCE NOTES: There are UNDISCLOSED HAZARD SCREENING METHOD: Ph: %: 0.10 - 1.00	AGENCY AND LIST TITLES No hazards found on or residuals in this material. aros Chemical and Materials Library aros Chemical and Materials Library aros Chemical and Materials Library GS: LT-UNK	WARNINGS HAZARD SCREI RC: None	HAZARE RC: NO	D SCREENING DATE: 2019-02-14	

SUBSTANCE NOTES: There are no residuals in this material.

CARBON BLACK

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING	HAZARD SCREENING DATE: 2019-02-14			
%: 0.10 - 1.00	GS: LT-1	RC: None	NANO: NO	ROLE: Colorant		
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS				
CANCER	US CDC - Occupational Carcinogens	Occupationa	al Carcinogen			
CANCER	CA EPA - Prop 65	Carcinogen	Carcinogen - specific to chemical form or exposure route			
CANCER	IARC	Group 2B - F sources	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources			
CANCER	МАК	Carcinogen classification	•	carcinogenic effects but not sufficient for		

SUBSTANCE NOTES: There are no residuals in this material.

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	N/A		
CERTIFYING PARTY: Self-declared	ISSUE	EXPIRY	CERTIFIER
APPLICABLE FACILITIES: All.	DATE:	DATE:	OR LAB:
CERTIFICATE URL:	2017-		Self-
$https://files.stifirestop.com/5.\% 20 Safety\% 20 Data\% 20 Sheets/1.\% 20 English/SDS_Closet\% 20 Flange\% 20 Firestop\% 20 Gasket.pdf$	01-30		declared.
CERTIFICATION AND COMPLIANCE NOTES: Not Applicable. See SDS (Certificate URL).			

🕒 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. No accessories are required for this product.

Section 5: General Notes

Specifications: The fire-rated retaining angles shall consist of powder coated galvanized steel angles with a bonded intumescent gasket and an integral corner clip assembly to join angle sections together. The fire-rated retaining angles shall provide a minimum 15x free expansion and shall contain no water soluble expansion ingredients. Fire-rated retaining angles shall be UL Classified and tested to the requirements of ASTM E814 (ANSI/UL 1479). Specified Divisions: Division 7 07 84 13 Penetration Firestopping Division 22 22 00 00 Firestopping for Plumbing Performance: FyreFlange™ Firestop Angles are the basis for firestop systems for non-rated square or rectangular duct penetrations that meet the exacting criteria of ASTM E814 (ANSI/UL 1479). UL Systems have been tested for common forms of construction for up to 2 hours. Features & Benefits: • One step installation • Economical - Saves labor • Clearly marked for easy inspection • Red color for easy identification • No additional firestop or backing materials required • Eliminates the need for multiple inspections • Can be installed over or under duct insulation

MANUFACTURER INFORMATION

MANUFACTURER: Specified Technologies Inc. ADDRESS: 210 Evans Way Somerville NJ 08876, United States WEBSITE: www.stifirestop.com

CONTACT NAME: George Gornick, LEED Green Associate TITLE: Applications Engineer PHONE: 800-992-1180, Ext. 1013 EMAIL: ggornick@stifirestop.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

GLO Global warming

MUL Multiple hazards

OZO Ozone depletion

NEU Neurotoxicity

MAM Mammalian/systemic/organ toxicity

PBT Persistent Bioaccumulative Toxic

- 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

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.

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)