FOAMULAR® INSUL-DRAIN® Extruded Polystyrene (XPS) Insulation Board by Owens Corning

Health Product Declaration v2.1.1
created via: HPDC Online Builder

CLASSIFICATION: Thermal & Moisture Protection

PRODUCT DESCRIPTION: Owens Corning FOAMULAR Extruded Polystyrene (XPS) Rigid Foam Insulation is a closed cell, moisture-resistant rigid foam board well suited to meet the needs for a wide variety of residential and commercial construction applications.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

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

All Substances Above the Threshold Indicated Are:

- Characterized
- Screened
- Identified

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.

INVENTORY AND SCREENING NOTES:

Substances representing 100% of the product weight meet the 1000 ppm Threshold and are Screened.

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: UL/GreenGuard Gold Certified
- VOC emissions: UL/GreenGuard Certified
- Recycled content: SCS Recycled Content Certification - Recycling Programs
- Multi-attribute: Environmental Product Declaration (EPD) by UL

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #: none

SCREENING DATE: 2019-11-22

PUBLISHED DATE: 2019-11-22

EXPIRY DATE: 2022-11-22

FOAMULAR INSUL-DRAIN Extruded Polystyrene (XPS) Insulation Board
hprepository.hpd-collaborative.org

HPD v2.1.1 created via HPDC Builder Page 1 of 7
### FOAMULAR® INSUL-DRAIN® EXTRUDED POLYSTYRENE (XPS) INSULATION BOARD

**PRODUCT THRESHOLD:** 1000 ppm  
**RESIDUALS AND IMPURITIES CONSIDERED:** Yes

**RESIDUALS AND IMPURITIES NOTES:** To the best of our knowledge, all residual and impurities are considered.

**OTHER PRODUCT NOTES:** FOAMULAR Extruded Polystyrene (XPS) Rigid Foam Insulation is offered in variety of thickness and densities. The wide range of substance has been reported to represent all product thickness and densities.

<table>
<thead>
<tr>
<th>POLYSTYRENE</th>
<th>ID: 9003-53-6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HAZARD SCREENING METHOD:</strong></td>
<td>Pharos Chemical and Materials Library</td>
</tr>
<tr>
<td><strong>HAZARD SCREENING DATE:</strong></td>
<td>2019-11-22</td>
</tr>
<tr>
<td>%</td>
<td>65.00 - 75.00</td>
</tr>
<tr>
<td>GS</td>
<td>LT-UNK</td>
</tr>
<tr>
<td>RC</td>
<td>PreC</td>
</tr>
<tr>
<td>NANO</td>
<td>No</td>
</tr>
<tr>
<td>ROLE</td>
<td>Resin</td>
</tr>
</tbody>
</table>

**HAZARD TYPE**
None found

**AGENCY AND LIST TITLES**

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

**SUBSTANCE NOTES:** Resin used in making the Foamular Board.

<table>
<thead>
<tr>
<th>POLYSTYRENE</th>
<th>ID: 9003-53-6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HAZARD SCREENING METHOD:</strong></td>
<td>Pharos Chemical and Materials Library</td>
</tr>
<tr>
<td><strong>HAZARD SCREENING DATE:</strong></td>
<td>2019-11-22</td>
</tr>
<tr>
<td>%</td>
<td>20.00 - 30.00</td>
</tr>
<tr>
<td>GS</td>
<td>LT-UNK</td>
</tr>
<tr>
<td>RC</td>
<td>PreC</td>
</tr>
<tr>
<td>NANO</td>
<td>No</td>
</tr>
<tr>
<td>ROLE</td>
<td>Recycled Resin</td>
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</tbody>
</table>

**HAZARD TYPE**
None found

**AGENCY AND LIST TITLES**

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

**SUBSTANCE NOTES:** This portion of the resin is 100% pre-consumer recycled polystyrene.

<table>
<thead>
<tr>
<th>UNDISCLOSED</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HAZARD SCREENING METHOD:</strong></td>
<td>Pharos Chemical and Materials Library</td>
</tr>
<tr>
<td><strong>HAZARD SCREENING DATE:</strong></td>
<td>2019-11-22</td>
</tr>
<tr>
<td>%</td>
<td>2.00 - 10.00</td>
</tr>
<tr>
<td>GS</td>
<td>LT-UNK</td>
</tr>
<tr>
<td>RC</td>
<td>None</td>
</tr>
<tr>
<td>NANO</td>
<td>No</td>
</tr>
<tr>
<td>ROLE</td>
<td>Blowing Agent Blend</td>
</tr>
</tbody>
</table>

**GLOBAL WARMING**
US EPA - Global Warming Potentials
Global Warming Potential greater than 1,000

**GLOBAL WARMING**
IPCC - Global Warming Chemicals
Chemicals with Global Warming Potential
### Portion of blowing agent blend with Global Warming Potential <1,000

**HAZARD SCREENING METHOD:** Pharos Chemical and Materials Library  
**HAZARD SCREENING DATE:** 2019-11-22

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.00 - 5.00</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Blowing Agent Blend</td>
</tr>
</tbody>
</table>

**GLOBAL WARMING:**
- US EPA - Global Warming Potentials: Global Warming Potential greater than 100
- IPCC - Global Warming Chemicals: Chemicals with Global Warming Potential

**HAZARD SCREENING DATE:** 2019-11-22

**%:** 2.00 - 5.00

**GS:** LT-UNK

**RC:** None

**NANO:** No

**ROLE:** Blowing Agent Blend

**HAZARD TYPE**

**AGENCY AND LIST TITLES**

**WARNINGS**

### Portion of blowing agent blend with Global Warming Potential <100

**HAZARD SCREENING METHOD:** Pharos Chemical and Materials Library  
**HAZARD SCREENING DATE:** 2019-11-22

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.10 - 2.00</td>
<td>LT-1</td>
<td>None</td>
<td>No</td>
<td>Flame Retardant</td>
</tr>
</tbody>
</table>

**GLOBAL WARMING:**
- US EPA - Global Warming Potentials: Global Warming Potential greater than 100
- IPCC - Global Warming Chemicals: Chemicals with Global Warming Potential

**HAZARD SCREENING DATE:** 2019-11-22

**%:** 0.10 - 2.00

**GS:** LT-1

**RC:** None

**NANO:** No

**ROLE:** Flame Retardant

**HAZARD TYPE**

**AGENCY AND LIST TITLES**

**WARNINGS**

- OSPAR - Priority PBTs & EDs & equivalent concern: PBT - Chemical for Priority Action
- EHP - San Antonio Statement on BFRs & CFRs: Flame retardant substance class of concern for PB&T & long range transport

**SUBSTANCE NOTES:** The flame retardant used in our Foamular XPS product is a polymeric halogenated flame retardant (Non-HBCD) and it is not on LBC v3.1 Red List chemicals.

### The flame retardant used in our Foamular XPS product is a polymeric halogenated flame retardant (Non-HBCD) and it is not on LBC v3.1 Red List chemicals.

**HAZARD SCREENING METHOD:** Pharos Chemical and Materials Library  
**HAZARD SCREENING DATE:** 2019-11-22

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.10 - 4.00</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Resin carrier for an additive</td>
</tr>
</tbody>
</table>

**GLOBAL WARMING:**
- US EPA - Global Warming Potentials: Global Warming Potential greater than 100
- IPCC - Global Warming Chemicals: Chemicals with Global Warming Potential

**HAZARD SCREENING DATE:** 2019-11-22

**%:** 0.10 - 4.00

**GS:** LT-UNK

**RC:** None

**NANO:** No

**ROLE:** Resin carrier for an additive

**HAZARD TYPE**

**AGENCY AND LIST TITLES**

**WARNINGS**

None found

**SUBSTANCE NOTES:** This resin is the carrier for an additive.

### An additive to improve some of the Foam properties.

**HAZARD SCREENING METHOD:** Pharos Chemical and Materials Library  
**HAZARD SCREENING DATE:** 2019-11-22

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.10 - 2.00</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Additive</td>
</tr>
</tbody>
</table>

**GLOBAL WARMING:**
- US EPA - Global Warming Potentials: Global Warming Potential greater than 100
- IPCC - Global Warming Chemicals: Chemicals with Global Warming Potential

**HAZARD SCREENING DATE:** 2019-11-22

**%:** 0.10 - 2.00

**GS:** LT-UNK

**RC:** None

**NANO:** No

**ROLE:** Additive

**HAZARD TYPE**

**AGENCY AND LIST TITLES**

**WARNINGS**

None found

**SUBSTANCE NOTES:** An additive to improve some of the Foam properties.
### UNDISCLOSED

**HAZARD SCREENING METHOD:** Pharos Chemical and Materials Library  
**HAZARD SCREENING DATE:** 2019-11-22

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.10 - 2.00</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Adhesive</td>
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</tbody>
</table>

**HAZARD TYPE**

None found

**WARNINGS**

No warnings found on HPD Priority Hazard Lists

**SUBSTANCE NOTES:** Adhesive is used to attach the fabric to the board.

### POLYPROPYLENE

**ID:** 9003-07-0

**HAZARD SCREENING METHOD:** Pharos Chemical and Materials Library  
**HAZARD SCREENING DATE:** 2019-11-22

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.10 - 5.00</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Groundwater filter</td>
</tr>
</tbody>
</table>

**HAZARD TYPE**

None found

**WARNINGS**

No warnings found on HPD Priority Hazard Lists

**SUBSTANCE NOTES:** It functions as a filter fabric to let groundwater pass through into the drainage channels cut into the foam board while preventing soil particles from passing through.
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

**UL/GreenGuard Gold Certified**

**CERTIFYING PARTY:** Third Party  
**APPLICABLE FACILITIES:** Tallmadge, OH, USA; Gresham, OR, USA; Rockford, IL, USA; Valleyfield, QC, CAN; Monterey, MEX  
**CERTIFICATE URL:** https://spot.ul.com/data/spot/api/v1/products/5ad1e81d55b0e82d946a094c/certificates/UL2818G_BMS  
**ISSUE DATE:** 2006-02-17  
**EXPIRY DATE:**  
**CERTIFIER OR LAB:** UL Environment  

**CERTIFICATION AND COMPLIANCE NOTES:** The GREENGUARD Gold Certification standard includes health based criteria for additional chemicals and also requires lower total VOC emissions levels to ensure that products are acceptable for use in environments such as schools and healthcare facilities. GREENGUARD Gold certification standard meets the requirements for California Department of Public Health’s CDPH Standard.

**UL/GreenGuard Certified**

**CERTIFYING PARTY:** Third Party  
**APPLICABLE FACILITIES:** Tallmadge, OH, USA; Gresham, OR, USA; Rockford, IL, USA; Valleyfield, QC, CAN; Monterey, MEX  
**CERTIFICATE URL:** https://spot.ul.com/data/spot/api/v1/products/5ad1e81d55b0e82d946a094c/certificates/UL2818_BMS  
**ISSUE DATE:** 2003-06-16  
**EXPIRY DATE:**  
**CERTIFIER OR LAB:** UL Environment  

**CERTIFICATION AND COMPLIANCE NOTES:**

### RECYCLED CONTENT

**SCS Recycled Content Certification - Recycling Programs**

**CERTIFYING PARTY:** Third Party  
**APPLICABLE FACILITIES:** Tallmadge, OH, USA; Gresham, OR, USA; Rockford, IL, USA; Valleyfield, QC, CAN; Monterey, MEX  
**CERTIFICATE URL:** https://www.scscertified.com/products/cert_pdfs/OwensComing_2018_SCS-MC-01132_s_v2.pdf  
**ISSUE DATE:** 2018-04-01  
**EXPIRY DATE:**  
**CERTIFIER OR LAB:** SCS Global  

**CERTIFICATION AND COMPLIANCE NOTES:** Registration # SCS-MC-01132

### MULTI-ATTRIBUTE

**Environmental Product Declaration (EPD) by UL**

**CERTIFYING PARTY:** Third Party  
**APPLICABLE FACILITIES:** Tallmadge, OH, USA; Gresham, OR, USA; Rockford, IL, USA; Valleyfield, QC, CAN; Monterey, MEX  
**CERTIFICATE URL:** https://spot.ul.com/data/spot/api/v1/certificationMarks/5ad1e1ac95c155157c13a39f  
**ISSUE DATE:** 2019-01-01  
**EXPIRY DATE:**  
**CERTIFIER OR LAB:** UL Environment  

**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.
Pharos Chemical and Materials Library (through HPD Builder) was used to screen all chemicals used in making the product. The HPD is undergoing Third-Party Verification. Please send an e-mail to Nassreen.Olang@owenscorning.com if you would like to receive a notification, once the HPD is third-party verified.
Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: Owens Corning
ADDRESS: One Owens Corning Parkway
Toledo Ohio 43659, United States
WEBSITE: www.owenscorning.com

CONTACT NAME: Nassreen Olang, Ph.D.
TITLE: Corporate Product Stewardship Leader
PHONE: 7403215446
EMAIL: nassreen.olang@owenscorning.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
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)
NoGS 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 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.