Section 1: Summary

**CONTENT INVENTORY**

<table>
<thead>
<tr>
<th>Inventory Reporting Format</th>
<th>Threshold Disclosed Per</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nested Materials Method</td>
<td>Material</td>
</tr>
<tr>
<td>Basic Method</td>
<td>Product</td>
</tr>
<tr>
<td>Threshold level</td>
<td></td>
</tr>
<tr>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>1,000 ppm</td>
<td></td>
</tr>
<tr>
<td>Per GHS SDS</td>
<td></td>
</tr>
<tr>
<td>Per OSHA MSDS</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Residuals/Impurities</td>
<td></td>
</tr>
<tr>
<td>Characterized</td>
<td></td>
</tr>
<tr>
<td>Percent Weight and Role</td>
<td></td>
</tr>
<tr>
<td>Screened</td>
<td></td>
</tr>
<tr>
<td>Using Priority Hazard Lists</td>
<td></td>
</tr>
<tr>
<td>Results Disclosed</td>
<td></td>
</tr>
<tr>
<td>Identified</td>
<td></td>
</tr>
<tr>
<td>Name and Identifier Provided</td>
<td></td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>SUBSTANCE</th>
<th>RESIDUAL OR IMPURITY</th>
<th>GREENSCREEN SCORE</th>
<th>HAZARD TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXP GYPSUM CORE</td>
<td>GYPSUM LT-UNK GLASS / MINERAL FIBER LT-UNK</td>
<td>CAN STARCH LT-UNK SILOXANES AND SILICONES, DI-ME, POLYMERS WITH 3-MERCAPTOPROPYL SILSESQUIOXANES LT-UNK SODIUM POLYNAPHTHALENESULFONATE LT-PI</td>
<td>POLYACRYLIC ACID, SODIUM SALT LT-PI</td>
<td>RES UNDISCLOSED LT-UNK POTASSIUM METHYLISILANETRIOLATE NG8S</td>
</tr>
</tbody>
</table>

**VOLATILE ORGANIC COMPOUND (VOC) CONTENT**

VOC Content data is not applicable for this product category.

**CERTIFICATIONS AND COMPLIANCE**

Other: ICC-ES Evaluation Report (ESR-2743)
Multi-attribute: Type III Environmental Product Declaration

Pre-checked for LEED v4 Material Ingredients, Option 1

**CONSISTENCY WITH OTHER PROGRAMS**

See Section 3 for additional listings.

Third Party Verified? | Yes | No
PREPARER: Self-Prepared
VERIFIER:
VERIFICATION IF:
SCREENING DATE: 2017-05-01
PUBLISHED DATE: 2017-09-06
EXPIRY DATE: 2020-05-01

**INVENTORY AND SCREENING NOTES:**

This Health Product Declaration (HPD) was completed in accordance with the HPD Standard version 2.1, and discloses hazards associated with all substances present at or above 1000 parts per million (ppm) in the finished product, along with the role and percent weight for each substance. Therefore, this HPD is consistent with the LEED v4 MR credit Building Product Disclosure and Optimization: Material Ingredient Reporting (Option 1).

Number of Greenscreen BM-4/BM3 contents........... 0
Contents highest concern GreenScreen Benchmark or List translator Score.............. LT-1
Nanomaterial.................. No

Gold Bond® eXP® Sheathing Fire-Shield® Gypsum Panels by National Gypsum Company
www.hpd-collaborative.org
### EXP Gypsum Core

- **MATERIAL THRESHOLD:** 1000 ppm
- **RESIDUALS AND IMPURITIES CONSIDERED:** Yes

**RESIDUALS AND IMPURITIES NOTES:** No residuals or impurities are known or expected to be present at or above the Content Inventory Threshold indicated that have a GS score of BM-1, LT-1 or LT-P1 based on batch testing, supplier SDS, and as predicted by process chemistry (Pharos CML).

**OTHER MATERIAL NOTES:** Gold Bond® eXP® Sheathing is manufactured with an enhanced moisture and mold resistant core.

### Gypsum

<table>
<thead>
<tr>
<th>%</th>
<th>98.8000 - 99.2000</th>
</tr>
</thead>
<tbody>
<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>Substrate</td>
</tr>
</tbody>
</table>

**HAZARDS:** None Found

**AGENCY(IES) WITH WARNINGS:** No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** May also include CASRN 10101-41-4 (LT-UNK; No warnings found on HPD Priority lists). Five National Gypsum plants produce gypsum board exclusively with Pre-Consumer (Post-Industrial) byproduct gypsum [Shippingport, PA; Apollo Beach, FL; Mt. Holly, NC; Westwego, LA; Shoals, IN]. Ten National Gypsum plants produce gypsum board exclusively with natural rock gypsum [Burlington, NJ; Fort Dodge, IA; Long Beach, CA; Medicine Lodge, KS; National City, MI; Phoenix, AZ; Portsmouth, NH; Richmond, CA; Rotan, TX; Savannah, GA]. Two National Gypsum plants produce gypsum board with a blend of Pre-Consumer (Post-Industrial) byproduct gypsum and natural rock gypsum [Baltimore, MD; Waukegan, IL].

### Glass / Mineral Fiber

<table>
<thead>
<tr>
<th>%</th>
<th>0.3000 - 0.4000</th>
</tr>
</thead>
<tbody>
<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>Core Strength, Fire Resistance</td>
</tr>
</tbody>
</table>

**HAZARDS:**
- **CANCER**
  - EU - R-phrases
    - R40 - Limited Evidence of Carcinogenic Effects
  - EU - GHS (H-Statements)
    - H351 - Suspected of causing cancer

**SUBSTANCE NOTES:** Identified on the US EPA Safer Chemical Ingredient List.

### Starch

<table>
<thead>
<tr>
<th>%</th>
<th>0.3000 - 0.4000</th>
</tr>
</thead>
<tbody>
<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>Improves Binding, Core Strength</td>
</tr>
</tbody>
</table>

**HAZARDS:** None Found

**AGENCY(IES) WITH WARNINGS:** No warnings found on HPD Priority lists

---

*Gold Bond eXP Sheathing Fire-Shield Gypsum Panels*

www.hpd-collaborative.org
**SILOXANES AND SILICONES, DI-ME, POLYMERS WITH 3-MERCAPTOPROPYL SILSESQUIOXANES**

ID: 108775-26-4  
%: 0.1000 - 0.2000  
GS: LT-UNK  
RC: None  
NANO: No  
ROLE: Moisture Resistance  

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

SUBSTANCE NOTES: Silicone

---

**SODIUM POLYNAPHTALENESULFONATE**

ID: 9084-06-4  
%: 0.0300 - 0.0400  
GS: LT-P1  
RC: None  
NANO: No  
ROLE: Dispersant; Reduces process water demand and energy consumption  

HAZARDS: PBT  
EC - CEPA DSL  
Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans  

SUBSTANCE NOTES: This substance falls below the Content Inventory Threshold indicated; however, we have included this substance in an effort to provide full transparency for this product. Efforts are being made to find a suitable replacement for this dispersant that has fewer hazards.

---

**COATED FIBERGLASS MAT (EXTERIOR)**  
%: 3.0000 - 5.5000  
HPD URL:  
MATERIAL THRESHOLD: 1000 ppm  
RESIDUALS AND IMPURITIES CONSIDERED: Yes  
RESIDUALS AND IMPURITIES NOTES: Residuals or impurities with the potential to be present at or above the Content Inventory Threshold indicated that return a GS score of BM-1, LT-1 or LT-P1 have been disclosed, based on information provided in supplier disclosure letters, supplier SDS, and as predicted by process chemistry (Pharos CML).  
OTHER MATERIAL NOTES: Gold Bond® eXP® Sheathing is manufactured with enhanced moisture and mold resistant facers, which provide superior weather resistance capabilities. Percent by weight of substances reported as a range in order to further protect the proprietary nature of this formulation.

---

**LIMESTONE; CALCIUM CARBONATE**

ID: 1317-65-3  
%: 45.0000 - 50.0000  
GS: LT-UNK  
RC: None  
NANO: No  
ROLE: Filler  

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

SUBSTANCE NOTES: Identified on the US EPA Safer Chemical Ingredient List.
<table>
<thead>
<tr>
<th>GLASS / MINERAL FIBER</th>
<th>ID: 65997-17-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>%: 20.0000 - 25.0000</td>
<td>GS: LT-UNK</td>
</tr>
<tr>
<td>HAZARDS:</td>
<td>AGENCY(IES) WITH WARNINGS:</td>
</tr>
<tr>
<td>CANCER</td>
<td>EU - R-phrases</td>
</tr>
<tr>
<td></td>
<td>R40 - Limited Evidence of Carcinogenic Effects</td>
</tr>
<tr>
<td>CANCER</td>
<td>EU - GHS (H-statements)</td>
</tr>
<tr>
<td></td>
<td>H351 - Suspected of causing cancer</td>
</tr>
<tr>
<td>SUBSTANCE NOTES:</td>
<td>Identified on the US EPA Safer Chemical Ingredient List.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KAOLIN CLAY</th>
<th>ID: 1332-58-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>%: 20.0000 - 25.0000</td>
<td>GS: LT-UNK</td>
</tr>
<tr>
<td>HAZARDS:</td>
<td>AGENCY(IES) WITH WARNINGS:</td>
</tr>
<tr>
<td>CANCER</td>
<td>MAK</td>
</tr>
<tr>
<td></td>
<td>Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification</td>
</tr>
<tr>
<td>SUBSTANCE NOTES:</td>
<td>Identified on the US EPA Safer Chemical Ingredient List.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNDISCLOSED</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>%: 2.0000 - 7.0000</td>
<td>GS: LT-P1</td>
</tr>
<tr>
<td>HAZARDS:</td>
<td>AGENCY(IES) WITH WARNINGS:</td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td>AOEC - Asthmagens</td>
</tr>
<tr>
<td></td>
<td>Asthmagen (Rs) - sensitizer-induced</td>
</tr>
<tr>
<td>SUBSTANCE NOTES:</td>
<td>Supplier has disclosed substance name and CASRN under a Non-Disclosure Agreement; substance to remain proprietary to supplier. Substance has been screened against the HPD Priority lists with results disclosed. Supplier has confirmed the upper limit for residuals of concern related to this binder component, which fall below the Content Inventory Threshold indicated for this material.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNDISCLOSED</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>%: 1.0000 - 5.0000</td>
<td>GS: LT-UNK</td>
</tr>
<tr>
<td>HAZARDS:</td>
<td>AGENCY(IES) WITH WARNINGS:</td>
</tr>
<tr>
<td>None Found</td>
<td>No warnings found on HPD Priority lists</td>
</tr>
<tr>
<td>SUBSTANCE NOTES:</td>
<td>Supplier has disclosed substance name and CASRN under a Non-Disclosure Agreement; substance to remain proprietary to supplier. Substance has been screened against the HPD Priority lists with results disclosed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POTASSIUM METHYLSILANETRIOLATE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>%: 0.1000 - 1.0000</td>
<td>GS: NoGS</td>
</tr>
<tr>
<td>HAZARDS:</td>
<td>AGENCY(IES) WITH WARNINGS:</td>
</tr>
<tr>
<td>None Found</td>
<td>No warnings found on HPD Priority lists</td>
</tr>
<tr>
<td>SUBSTANCE NOTES:</td>
<td></td>
</tr>
</tbody>
</table>
### POLYACRYLIC ACID, SODIUM SALT

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1000 - 1.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Dispersant</td>
</tr>
</tbody>
</table>

**HAZARDS:**
None Found
No warnings found on HPD Priority lists

**SUBSTANCE NOTES:**
Identified on the US EPA Safer Chemical Ingredient List.

### UNDISCLOSED

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1000 - 1.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Binder</td>
</tr>
</tbody>
</table>

**HAZARDS:**
None Found
No warnings found on HPD Priority lists

**SUBSTANCE NOTES:**
Supplier has disclosed substance name and CAS RN under a Non-Disclosure Agreement; substance to remain proprietary to supplier. Substance has been screened against the HPD Priority lists with results disclosed.

### MICA

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1000 - 1.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Filler</td>
</tr>
</tbody>
</table>

**HAZARDS:**
None Found
No warnings found on HPD Priority lists

**SUBSTANCE NOTES:**
Synonyms: Muscovite; Phlogopite; Silicate, mica

### QUARTZ

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impurity/Residual</td>
<td>LT-1</td>
<td>None</td>
<td>No</td>
<td>Impurity/Residual</td>
</tr>
</tbody>
</table>

**HAZARDS:**
CANCER
US CDC - Occupational Carcinogens: Occupational Carcinogen
CANCER
IARC: Group 1: Agent is carcinogenic to humans - inhaled from occupational sources
CANCER
US NIH - Report on Carcinogens: Known to be Human Carcinogen (respirable size - occupational setting)
CANCER
MAK: Carcinogen Group 1 - Substances that cause cancer in man
CANCER
CA EPA - Prop 65: Carcinogen - specific to chemical form or exposure route
SUBSTANCE NOTES: Quartz is one of several compounds with warnings restricted to respirable forms (Pharos CML). Exposures to respirable crystalline silica are not expected during the recommended use of this product. Awaiting full GreenScreen Assessment for form specific hazards for this compound (http://ow.ly/Z5ken).

SILICA, AMORPHOUS

ID: 7631-86-9

<table>
<thead>
<tr>
<th>%: Impurity/Residual</th>
<th>GS: LT-P1</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Impurity/Residual</th>
</tr>
</thead>
</table>

HAZARDS: AGENCY(ES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists


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.

OTHER

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: All

MULTI-ATTRIBUTE

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: All
CERTIFICATE URL: designcenter.nationalgypsum.com/storage/components/pdf/GMGP_EPD-Final_091516-.pdf
CERTIFICATION AND COMPLIANCE NOTES: Industry average cradle-to-gate EPD for Glass Mat Gypsum Panels produced by Gypsum Association member companies for the USA and Canadian Markets. Declaration Number: EPD- 038. ASTM International, Product Category Rules for Preparing an Environmental Product Declaration for Glass Mat Gypsum Panels, August 2016. Declared unit: 1,000 square feet (1MSF) of Glass Mat Gypsum Panel with a nominal finished thickness of 1/2” and 5/8”.

Gold Bond eXP Sheathing Fire-Shield Gypsum Panels
www.hpd-collaborative.org
HPD v2.1 created via HPDC Builder Page 6 of 8
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.

STEEL FRAMING

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:
Component of Steel Stud Curtain Wall, as referenced in ICC Evaluation Report (ESR-2743).

FASTENERS

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:
As referenced in ICC Evaluation Report (ESR-2743).

Section 5: General Notes

Residuals and Impurities have been considered as stated in the Material Notes for each disclosed material.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: National Gypsum Company
ADDRESS: 2001 Rexford Road
Charlotte NC 28211, USA
WEBSITE: www.nationalgypsum.com

CONTACT NAME: Warren Barber
TITLE: Manager - Technical Marketing
PHONE: 704-365-7494
EMAIL: WarrenB@nationalgypsum.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/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.