Gold Bond® Fire-Shield® Gypsum Boards
by National Gypsum Company

CLASSIFICATION: 09 29 00.00 FINISHES: GYPSUM BOARD

PRODUCT DESCRIPTION: PRODUCT DESCRIPTION: GOLD BOND® BRAND FIRE-SHIELD® GYPSUM BOARD CONSISTS OF A FIRE-RESISTANT GYPSUM CORE (TYPE X) WITH A HEAVY, NATURAL FINISH AND 100-PERCENT RECYCLED PAPER ON THE FACE AND BACK SIDES. THE FACE PAPER FOLDS AROUND THE LONG EDGES TO REINFORCE AND PROTECT THE CORE, AND THE ENDS ARE CUT SQUARE AND FINISHED SMOOTH. USE IT FOR INTERIOR, FIRE-RATED WALL AND CEILING APPLICATIONS. FOR SPEED OF INSTALLATION, GRIDMARX® GUIDE MARKS ARE PRINTED ON THE PAPER SURFACE. THIS HPD COVERS 5/8" GOLD BOND® BRAND FIRE-SHIELD® GYPSUM BOARD AND 5/8" GOLD BOND® BRAND KAL-KORE FIRE SHIELD® X PLASTER BASE.

**Section 1: Summary**

### CONTENT INVENTORY

<table>
<thead>
<tr>
<th>Threshold per material</th>
<th>Residuals and impurities considered in 2 of 2 materials</th>
<th>see Section 2: Material Notes</th>
<th>see Section 5: General Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per GHS SDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per OSHA MSDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the selected Content Inventory Threshold:

- Characterized: Are the Percent Weight and Role provided for all substances? (Yes)
- Screened: Are all substances screened using Priority Hazard Lists with results disclosed? (Yes)
- Identified: Are all substances disclosed by Name (Specific or Generic) and Identifier? (Yes)

### 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**

- FIRE-SHIELD® TYPE X GYPSUM CORE: gyspum LT-UNK, starch LT-UNK, glass / mineral fiber LT-UNK, vermiculite NoGS, sodium polynaphthalenesulfonate LT-P1, PBT, gold bond paper facing LT-UNK, mixed recycled paper NoGS, 2,5-furandione, dihydro-, mono-C15-20-alkenyl derivs, starch LT-UNK

### VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

### CERTIFICATIONS AND COMPLIANCE

- VOC emissions: GREENGUARD Gold Certified
- VOC emissions: GREENGUARD Certified
- Multi-attribute: Type III Environmental Product Declaration (EPD)

See Section 3 for additional listings.

**VERIFIER:**

**SCREENING DATE:** May 1, 2017

**EXPIRY DATE:** May 1, 2020

* or within 3 months of significant change in product contents

See HPDC website for details.
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 and www.greenscreenc hemicals.org.

### FIRE-SHIELD® TYPE X GYPSUM CORE

Inventory Threshold: 1000 ppm
Residuals Considered: Yes

Material 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).

<table>
<thead>
<tr>
<th>GYPSUM</th>
<th>ID: 13397-24-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>%: 98.5000 - 99.0000</td>
<td>GS: LT-UNK</td>
</tr>
<tr>
<td></td>
<td>RC: PreC</td>
</tr>
<tr>
<td></td>
<td>NANO: NO</td>
</tr>
<tr>
<td>ROLE: Core Substrate</td>
<td></td>
</tr>
</tbody>
</table>

### STARCH

<table>
<thead>
<tr>
<th>STARCH</th>
<th>ID: 9005-25-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>%: 1.0000 - 1.2000</td>
<td>GS: LT-UNK</td>
</tr>
<tr>
<td></td>
<td>RC: None</td>
</tr>
<tr>
<td></td>
<td>NANO: NO</td>
</tr>
<tr>
<td>ROLE: Improves Binding and Core Strength</td>
<td></td>
</tr>
</tbody>
</table>

### GLASS / MINERAL FIBER

<table>
<thead>
<tr>
<th>GLASS / MINERAL FIBER</th>
<th>ID: 65997-17-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>%: 0.2000 - 0.3000</td>
<td>GS: LT-UNK</td>
</tr>
<tr>
<td></td>
<td>RC: None</td>
</tr>
<tr>
<td></td>
<td>NANO: NO</td>
</tr>
<tr>
<td>ROLE: Improves Core Strength</td>
<td></td>
</tr>
</tbody>
</table>

### HAZARDS:

<table>
<thead>
<tr>
<th>AGENCY(IES) WITH WARNINGS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None Found</td>
</tr>
<tr>
<td>No warnings found on HPD Priority lists</td>
</tr>
</tbody>
</table>

### 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].
<table>
<thead>
<tr>
<th>Substance Name</th>
<th>ID</th>
<th>% Range</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vermiculite</td>
<td>1318-00-9</td>
<td>0.2000 - 0.3000</td>
<td>NoGS</td>
<td>None</td>
<td>NO</td>
<td>Improves Fire Resistance</td>
</tr>
<tr>
<td>Sodium Polynaphthalenesulfonate</td>
<td>9084-06-4</td>
<td>0.0300 - 0.0400</td>
<td>LT-P1</td>
<td>None</td>
<td>NO</td>
<td>Dispersant; Reduces process water demand and energy consumption</td>
</tr>
<tr>
<td>Gold Bond Paper Facing</td>
<td></td>
<td>2.6000 - 4.8000</td>
<td>LT-UNK</td>
<td>PostC</td>
<td>NO</td>
<td>Face and Back Paper; Holds Core</td>
</tr>
<tr>
<td>2,5-Furandione, Dihydro-, Mono-C15-20-Alkenyl Derivs.</td>
<td>68784-12-3</td>
<td>0.2000 - 0.3000</td>
<td>LT-UNK</td>
<td>None</td>
<td>NO</td>
<td>Sizing Aid</td>
</tr>
</tbody>
</table>

**HAZARDS:**

No warnings found on HPD Priority lists

**SUBSTANCE NOTES:**

Supplier confirms no asbestos detected (EPA method EPA/600/R-93/116).

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.

**SUBSTANCE NOTES:**

100% of our gypsum board face and back paper is produced with post-consumer recycled content. The company’s three paper mills produce paper from discarded cardboard and magazines.

**SUBSTANCE NOTES:**

All residuals and 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 supplier SDS and as predicted by process chemistry (Pharos CML).
<table>
<thead>
<tr>
<th>HAZARDS:</th>
<th>AGENCY(IES) WITH WARNINGS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None Found</td>
<td>No warnings found on HPD Priority lists</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Alkenyl Succinic Anhydride.

### STARCH

- **ID:** 9005-25-8
- **%:** 0.1000 - 0.2000
- **GS:** LT-UNK
- **RC:** None
- **NANO:** NO
- **ROLE:** Binder

<table>
<thead>
<tr>
<th>HAZARDS:</th>
<th>AGENCY(IES) WITH WARNINGS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None Found</td>
<td>No warnings found on HPD Priority lists</td>
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</tbody>
</table>

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

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**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

**GREENGUARD Gold Certified**
- **CERTIFYING PARTY:** Third Party
- **APPLICABLE FACILITIES:** All
- **CERTIFICATE URL:** [certificates.ulenvironment.com/default.aspx?id=7196&i=cs](certificates.ulenvironment.com/default.aspx?id=7196&i=cs)
- **CERTIFICATION AND COMPLIANCE NOTES:** Certificate Number 7196-420. Product tested in accordance with UL 2821 test method to show compliance to emission limits on UL 2818. Section 7.1 and 7.2. Building products and Interior finishes are determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using the applicable exposure scenario(s).

- **ISSUE DATE:** 2008-12-31
- **EXPIRY DATE:** 2017-12-31
- **CERTIFIER OR LAB:** UL Environment

**GREENGUARD Certified**
- **CERTIFYING PARTY:** Third Party
- **APPLICABLE FACILITIES:** All
- **CERTIFICATE URL:** [certificates.ulenvironment.com/default.aspx?id=7196&i=gg](certificates.ulenvironment.com/default.aspx?id=7196&i=gg)
- **CERTIFICATION AND COMPLIANCE NOTES:** Certificate Number 7196-410. Products tested in accordance with UL 2821 test method to show compliance to emission limits in UL 2818, Section 7.1.

- **ISSUE DATE:** 2008-12-31
- **EXPIRY DATE:** 2017-12-31
- **CERTIFIER OR LAB:** UL Environment

**MULTI-ATTRIBUTE**

**Type III Environmental Product Declaration (EPD)**
- **CERTIFYING PARTY:** Third Party
- **APPLICABLE FACILITIES:** All
- **CERTIFICATION AND COMPLIANCE NOTES:** Type III environmental product declaration (EPD) developed according to ISO 14025 and 21930 for average 5/8” type X gypsum boards, also known as drywall, manufactured by the members of the Gypsum Association. Declaration number: FPI/GA/01/2014. Scope: Cradle-to-gate. Declared unit: 1,000 square feet (1 MSF) of 5/8” type X gypsum board at facility gate.

- **ISSUE DATE:** 2014-05-01
- **EXPIRY DATE:** 2019-05-01
- **CERTIFIER OR LAB:** FPInnovations

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**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.

**PROFORM® PAPER JOINT TAPE**
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Finish gypsum board with either paper tape, such as ProForm® Paper Joint Tape, and ready mix joint compound; or fiberglass mesh or paper tape and setting compound.

PROFORM® READY MIX JOINT COMPOUNDS (VOC <2 G/L)  
HPD URL: http://designcenter.nationalgypsum.com/sustainability/category/health-product-declaration-hpd

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Finish gypsum board with either paper tape and ready mix joint compound, such as ProForm® Ready Mix Joint Compounds; or fiberglass mesh or paper tape and setting compound.

PROFORM® SETTING TYPE JOINT COMPOUNDS  
HPD URL: http://designcenter.nationalgypsum.com/sustainability/category/health-product-declaration-hpd

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Finish gypsum board with either paper tape and ready mix joint compound; or fiberglass mesh or paper tape and setting compound, such as ProForm® Setting Type Joint Compounds.

Section 5: General Notes

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