

CLASSIFICATION: 09 28 00.00 Finishes: Backing Boards and Underlayments

created via: HPDC Online Builder

PRODUCT DESCRIPTION: PermaBase® BRAND Cement Board is a rigid substrate made of Portland cement, aggregate and glass mesh. It has an exceptionally hard, durable surface that can withstand prolonged exposure to moisture. Use it as an underlayment or backing surface in a variety of interior and exterior applications, including (but not limited to) tub and shower surrounds, countertops, flooring, and for cement board stucco and masonry veneer wall systems. This HPD covers 5/8" and 1/2" PermaBase® BRAND Cement Board.

Section 1: Summary

Nested Method / Material Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
- Basic Method

Threshold Disclosed Per

- Material
- Product

Threshold level

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

Residuals/Impurities

Residuals/Impurities Considered in 2 of 2 Materials

Explanation(s) provided for Residuals/Impurities?

- Yes No

Are All Substances Above the Threshold Indicated:

Characterized Yes No
Percent Weight and Role Provided?

Screened Yes No
Using Priority Hazard Lists with Results Disclosed?

Identified Yes No
Name and Identifier Provided?

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

PERMABASE CEMENTITIOUS CORE [QUARTZ **LT-1** | CAN FLY ASH **LT-UNK** | PORTLAND CEMENT **LT-P1** | CAN | END HIGH-ALUMINA CEMENT **LT-UNK** | POLYSTYRENE **LT-UNK** | CALCIUM HYDROXIDE **LT-P1** 2-NAPHTHALENESULFONIC ACID, POLYMER WITH FORMALDEHYDE, SODIUM SALT **LT-P1** | PBT] FIBERGLASS SCRIM [GLASS / MINERAL FIBER **LT-UNK** | CAN PVC RELATED POLYMERS **NoGS** | DIISONONYL PHTHALATE (DINP-1, MIXTURE OF ISOMERS AS MANUFACTURED) **LT-1** | CAN | DEL | MUL | END | REP BARIUM ZINC COMPLEX **NoGS** | UNDISCLOSED **LT-UNK** | CAN]

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

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. Therefore, this HPD is consistent with the LEED v4 MR credit Building Product Disclosure and Optimization: Material Ingredient Reporting (Option 1).

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: GREENGUARD Certified
VOC emissions: GREENGUARD Gold Certified
Other: UL Evaluation Report (UL ER22158-01)

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2017-08-24

PUBLISHED DATE: 2017-09-22

EXPIRY DATE: 2020-08-24

Section 2: Content in Descending Order of Quantity

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

PERMABASE CEMENTITIOUS CORE

%: 97.5000 - 99.5000

HPD URL:

MATERIAL THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities are 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 that are not otherwise disclosed as intentionally added ingredients (Quartz/Silica), based on batch testing and supplier SDS.

OTHER MATERIAL NOTES: Percent by weight of substances reported as range to protect the proprietary nature of this formulation.

QUARTZ

ID: 14808-60-7

%: 50.0000 - 60.0000

GS: LT-1

RC: None

NANO: No

ROLE: Filler; Impurity/Residual

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

US CDC - Occupational Carcinogens

Occupational Carcinogen

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

CANCER

IARC

Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources

CANCER

New Zealand - GHS

6.7A - Known or presumed human carcinogens

CANCER

Australia - GHS

H350 - May cause cancer

SUBSTANCE NOTES: Masonry sand; Crystallized silicon dioxide. Natural substance that is widely used in metal extraction, paints, polymers, cleaning agents, coloring agents, and fillers. 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>). May also represent impurity of other components of this material.

FLY ASH

ID: 68131-74-8

%: 25.0000 - 35.0000

GS: LT-UNK

RC: PreC

NANO: No

ROLE: Binder

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Type C fly ash. All fly ash added to the product is a Pre-Consumer (Post-Industrial) byproduct of coal generated power plants. The percentage of this ingredient may vary depending on plant and raw material availability. The sum of heavy metals tested (Cadmium, Lead,

PORTLAND CEMENTID: **65997-15-1**

#: 5.0000 - 15.0000	GS: LT-P1	RC: None	NANO: No	ROLE: Binder
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HAZARDS:	AGENCY(IES) WITH WARNINGS:	
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES: Type I/II Portland Cement. The National Institute of Standards and Technology lists the composition of Portland Cement as including: Calcium Oxide (CAS No. 1305-78-8), 64%; Silicon Dioxide (7631-86-9), 20%; Aluminum Oxide (1344-28-1), 5%; Iron III Oxide (1309-37-1), 4%; Sulfur Trioxide (7446-11-9), 3%; Magnesium Oxide (1309-48-4), 1% (Pharos CML). The percentage of this ingredient may vary depending on plant and raw material availability.

HIGH-ALUMINA CEMENTID: **65997-16-2**

#: 1.0000 - 10.0000	GS: LT-UNK	RC: None	NANO: No	ROLE: Binder, Set Accelerator
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HAZARDS:	AGENCY(IES) WITH WARNINGS:	
None Found	No warnings found on HPD Priority lists	

SUBSTANCE NOTES:

POLYSTYRENEID: **9003-53-6**

#: 0.1000 - 1.0000	GS: LT-UNK	RC: None	NANO: No	ROLE: Filler, Reduces Board Weight
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HAZARDS:	AGENCY(IES) WITH WARNINGS:	
None Found	No warnings found on HPD Priority lists	

SUBSTANCE NOTES:

CALCIUM HYDROXIDEID: **1305-62-0**

#: 0.1000 - 1.0000	GS: LT-P1	RC: None	NANO: No	ROLE: Accelerator
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HAZARDS:	AGENCY(IES) WITH WARNINGS:	
None Found	No warnings found on HPD Priority lists	

SUBSTANCE NOTES: Hydrated lime. Identified on US EPA Safer Chemical Ingredient List.

2-NAPHTHALENESULFONIC ACID, POLYMER WITH FORMALDEHYDE, SODIUM SALTID: **36290-04-7**

%: **0.1000 - 1.0000**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Reduces Process Water Demand**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

PBT

EC - CEPA DSL

Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans

SUBSTANCE NOTES: This ingredient is not used in our Jacksonville, FL plant.

FIBERGLASS SCRIM

%: **0.5000 - 2.5000**

HPD URL: <https://builder.hpd-collaborative.org/uploads/files/hpds/1037/4436-20160816104528.pdf>

MATERIAL THRESHOLD:

RESIDUALS AND IMPURITIES CONSIDERED: **Yes**

100 ppm

RESIDUALS AND IMPURITIES NOTES: Supplier HPD claims Residuals Disclosure as "Measured 100 ppm".

OTHER MATERIAL NOTES: Material information based on supplier's published HPD (v1.0; 08/16/2016).

GLASS / MINERAL FIBER

ID: **65997-17-3**

%: **38.0000 - 45.0000**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Core Yarn**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

EU - R-phrases

R40 - Limited Evidence of Carcinogenic Effects

CANCER

EU - GHS (H-Statements)

H351 - Suspected of causing cancer

SUBSTANCE NOTES:

PVC RELATED POLYMERS

ID: **9002-86-2**

%: **33.0000 - 38.0000**

GS: **NoGS**

RC: **None**

NANO: **No**

ROLE: **Polymer**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

DIISONONYL PHTHALATE (DINP-1, MIXTURE OF ISOMERS AS MANUFACTURED)

ID: **68515-48-0**

%: **18.0000 - 21.0000**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Plasticizer**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

CA EPA - Prop 65

Carcinogen

DEVELOPMENTAL	US NIH - Reproductive & Developmental Monographs	Some Evidence of Adverse Effects - Developmental Toxicity
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
REPRODUCTIVE	US EPA - PPT Chemical Action Plans	Reproductive effects

SUBSTANCE NOTES:

BARIUM ZINC COMPLEX

ID: **Not registered**

#: **1.0000 - 2.0000** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Heat Stabilizer**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

UNDISCLOSED

#: **1.0000 - 1.5000** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Processing Aid**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

MAK

Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: Supplier HPD lists this as a "Proprietary Ingredient". All hazards disclosed in Supplier HPD have been included.

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 Certified

CERTIFYING PARTY: Third Party ISSUE DATE: 2009-12-31 EXPIRY DATE: 2017-12-31 CERTIFIER OR LAB: UL Environment

APPLICABLE FACILITIES: All

CERTIFICATE URL: certificates.ulenvironment.com/default.aspx?id=9433&t=gg

CERTIFICATION AND COMPLIANCE NOTES: Certificate Number: 9433-410

CERTIFYING PARTY: Third Party

ISSUE DATE: 2009-12-

EXPIRY DATE: 2017-

CERTIFIER OR LAB: UL Environment

APPLICABLE FACILITIES: All

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12-31

CERTIFICATE URL:

certificates.ulenvironment.com/default.aspx?id=9433&t=cs

CERTIFICATION AND COMPLIANCE NOTES: Certificate Number: 9433-420

OTHER**UL Evaluation Report (UL ER22158-01)**

CERTIFYING PARTY: Third Party

ISSUE

EXPIRY

CERTIFIER OR LAB:

APPLICABLE FACILITIES: Clinton, IN; Cleburne, TX; Green Cove Springs, FL; Bromont, Canada.

DATE: 2017-

DATE:

UL

03-31

CERTIFICATE URL:

http://designcenter.nationalgypsum.com/storage/components/pdf/ULFP.R22158.pdf

CERTIFICATION AND COMPLIANCE NOTES: **SUBJECT: PERMABASE CEMENTITIOUS BACKER UNITS. SCOPE OF EVALUATION:** 2009, 2012, 2015 International Building Code® (IBC); 2009, 2012, 2015 International Residential Code® (IRC). Properties evaluated: Surface Burning Characteristics (ANSI/UL723, ASTM E84); Fire-resistance-rated construction (ANSI/UL263, ASTM E119); Physical properties; Structural; Durability; Noncombustible construction.

+ 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.

FASTENERSHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

As referenced in UL Evaluation Report (UL ER22158-01).

STEEL FRAMINGHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

As referenced in UL Evaluation Report (UL ER22158-01).

ALKALI-RESISTANT FIBERGLASS MESH TAPEHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Used to treat joints and/or reinforce seams, edges, corners and all openings around fixtures, as per UL Evaluation Report (UL ER22158-01).

MORTAR OR ADHESIVEHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Used to treat joints and/or reinforce seams, edges, corners and all openings around fixtures, as per UL Evaluation Report (UL ER22158-01).

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/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.