Clay Brick
by Acme Brick Company

Health Product Declaration v2.3
created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 29402
CLASSIFICATION: 04 21 00 Clay Unit Masonry
PRODUCT DESCRIPTION: Acme Brick are manufactured from natural earth clay and hard-fired in computer-controlled kilns at temperatures that often exceed 1,800 degrees. Continual testing and rigorous quality control ensure that Acme-manufactured clay brick exceed the standards of all building codes. Unlike lower-cost competitors, Acme Brick retain their rich color without painting or sealing, and they require virtually no maintenance. When used in new-home construction, they are backed by a 100 Year Limited Guarantee for Homebuyers. Founded in 1891, Acme Brick Company is the world's largest U.S.-owned brick manufacturer. This HPD covers clay brick in all colors and options.

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
- ( ) Other

Residuals/Impurities Evaluation
Completed in 1 of 1 Materials

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

For all contents above the threshold, the manufacturer has:

Characterized (•) Yes ( ) No
Provided weight and role.

Screened (•) Yes ( ) No
Provided screening results using HPDC-approved methods.

Identified ( ) Yes (•) No
Provided name and CAS RN or other identifier.

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.

NESTED MATERIAL | MATERIAL OR SUBSTANCE | *RESIDUAL OR IMPURITY*
GREENSCREEN SCORE | HAZARD TYPE

CLAY BRICK [CLAY NoGS QUARTZ BM-1 | CAN | | MUL | MAM | GEN
SILICON DIOXIDE BM-1 | CAN | | MAM | DEV | EYE FLY ASH LT-UNK |
NEPHELINE SYENITE LT-UNK | CHROMITE BM-2 ALUMINUM OXIDE
BM-2 | RES | | MAM | MUL | DEV MANGANESE DIOXIDE BM-1 | EYE |
MAM | | MUL | GEN | AQU | REP | PHY MANGANESE(2+) SULFATE
MONOHYDRATE LT-P1 | MAM | GEN | MUL | AQU | EYE FERRIC OXIDE
BM-1 | CAN | | MAM | EYE | SKI UNDISCLOSED LT-P1 | END | MUL
UNDISCLOSED BM-3dg | MUL SODIUM CARBONATE LT-UNK | EYE |
SKI | | MAM | MUL | PHY GLASS, OXIDE, CHEMICALS LT-UNK | | MUL
HAEMATITE LT-UNK | CAN MAGNESIUM SULFATE, 7-HYDRATE LT-
UNK | | MUL FELDSPAR LT-UNK | MAM BARIUM CARBONATE BM-2 |
MAM | | MUL | CAN KAOLIN LT-UNK | CAN | | MUL KAOLINITE NoGS
AMMONIUM LIGNOSULFONATE LT-UNK | MUL CERAMIC
MATERIALS AND WARES, CHEMICALS LT-P1 | MUL | RUTILE
TITANIUM DIOXIDE LT-1 | CAN | | MAM | MUL | AQU | EYE ZINC OXIDE
BM-1 | END | RES | MUL | AQU | | CAN | MAM | REP SAND GRANITE]

Number of Greenscreen BM-4/BM3 contents ... 1

Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... BM-1, LT-P1, LT-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Special Conditions applied: [GeologicalMaterial]

This Health Product Declaration (HPD) was completed in accordance with the HPD Standard version 2.3, 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.

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: Inherently non-emitting source per LEED

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Option 1.
Pre-checked for LEED v4.1 Option 1.

Third Party Verified? PREPARER: Elixir Environmental SCREENING DATE: 2022-07-28

○ Yes	VERIFIER:	PUBLISHED DATE: 2022-07-28
◉ No	VERIFICATION #:	EXPIRY DATE: 2025-07-28

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 2.3, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-3-standard

CLAY BRICK %: **100.0000 - 100.0000**

MATERIAL THRESHOLD: **1000 ppm** | RESIDUALS AND IMPURITIES EVALUATION COMPLETED: **Yes** | MATERIAL TYPE: **Geologically Derived Material**

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, LT-P1 or NoGS have been disclosed, based on information provided in supplier documentation, and as predicted by process chemistry (Pharos CML).

OTHER MATERIAL NOTES: Substances listed represent pre-fired components. Percent by weight of substances reported as range to account for variances in manufacturing.

CLAY ID: **1302-87-0**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:41**

%: **77.2000 - 100.0000** GreenScreen: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Ceramic body**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Natural clays obtained from various mines in the United States. Please contact manufacturer if more information is required.

QUARTZ ID: **14808-60-7**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:42**

%: **0.0000 - 16.0000** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Ceramic body**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	US NIH - Report on Carcinogens	Known to be Human Carcinogen (respirable size - occupational setting)
CAN	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CAN	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
CAN	IARC	Group 1 - Agent is Carcinogenic to humans
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1A]
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]
CAN	GHS - New Zealand	Carcinogenicity category 1
	EC - CEPA DSL	Persistent
MUL	Québec CSST - WHMIS 1988	Class D2A - Very toxic material causing other toxic effects
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MUL	EC - CEPA DSL	Inherently Toxic to Humans (iTH)
GEN	GHS - Japan	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Quartz/Silica is one of several compounds with warnings restricted to respirable forms (Silica, crystalline - airborne particles of respirable size). GreenScreen Benchmark® assessment score of BM-1 was provided by the HPD Builder Tool. May also represent possible impurity present in other raw materials. Substance not used in every formulation; contact manufacturer if more information is required.

SILICON DIOXIDE ID: **7631-86-9**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:42**

%: **0.0000 - 12.0000** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1A]
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]
	EC - CEPA DSL	Persistent
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
DEV	MAK	Pregnancy Risk Group C
MAM	GHS - Japan	H335 or H336 [Specific target organs/systemic toxicity following single exposure - Category 3]
CAN	IARC	Group 3 - Agent is not classifiable as to its carcinogenicity to humans
EYE	GHS - Japan	H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2]

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE SCIL Green Circle - Verified Low Concern

SUBSTANCE NOTES: GreenScreen Benchmark® assessment score of BM-1 was provided by the HPD Builder Tool. Substance not used in every formulation; contact manufacturer if more information is required.

SAND ID: **Geological Material**

HAZARD DATA SOURCE: **HPDC Special Conditions Policy**

%: **0.0000 - 10.0000** GreenScreen: **Not Required** RC: **None** NANO: **No** MATERIAL ROLE: **Coating**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
Hazard Screening is not applicable to this Special Condition		

INGREDIENT DESCRIPTION AND COMPOSITION: Crystalline Silica

COUNTRY OF ORIGIN: USA

RADIOACTIVE ELEMENTS: Unknown

POTENTIAL PRESENCE OF TOXIC METALS: Unknown

MATERIAL CONTENT NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

This disclosure does not provide potential presence of radioactive elements which may be found in certain geological materials.
This disclosure does not provide potential presence of toxic metals which may be found in certain geological materials.

FLY ASH

ID: 68131-74-8

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:43**

%: **0.0000 - 9.0000** GreenScreen: **LT-UNK** RC: **PreC** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	EC - CEPA DSL	Persistent

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Individual trace elements not expected to be present above the disclosure threshold, based on information provided in supplier documentation. Substance not used in every formulation; contact manufacturer if more information is required.

NEPHELINE SYENITE

ID: 37244-96-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:43**

%: **0.0000 - 5.2000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Flux**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	EC - CEPA DSL	Persistent

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE SCIL Green Circle - Verified Low Concern

SUBSTANCE NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

CHROMITE

ID: 1308-31-2

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:44**

%: **0.0000 - 5.0000** GreenScreen: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Coating**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: GreenScreen Benchmark® assessment score of BM-2 was provided by the HPD Builder Tool. Substance not used in every formulation; contact manufacturer if more information is required.

ALUMINUM OXIDE

ID: 1344-28-1

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:44**

%: **0.0000 - 5.0000** GreenScreen: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
	EC - CEPA DSL	Persistent
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MUL	EC - CEPA DSL	Inherently Toxic to Humans (iTH)
DEV	MAK	Pregnancy Risk Group D
MAM	GHS - Japan	H335 or H336 [Specific target organs/systemic toxicity following single exposure - Category 3]
MUL	EC - CEPA DSL	Inherently Toxic in the Environment (iTE)

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products

SUBSTANCE NOTES: GreenScreen Benchmark® assessment score of BM-2 was provided by the HPD Builder Tool. Substance not used in every formulation; contact manufacturer if more information is required.

GRANITE

ID: Geological Material

HAZARD DATA SOURCE: HPDC Special Conditions Policy

%: **0.0000 - 5.0000** GreenScreen: **Not Required** RC: **None** NANO: **No** MATERIAL ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
Hazard Screening is not applicable to this Special Condition		

INGREDIENT DESCRIPTION AND COMPOSITION: Feldspar; Quartz

COUNTRY OF ORIGIN: USA

RADIOACTIVE ELEMENTS: Unknown

POTENTIAL PRESENCE OF TOXIC METALS: Unknown

MATERIAL CONTENT NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

This disclosure does not provide potential presence of radioactive elements which may be found in certain geological materials.
This disclosure does not provide potential presence of toxic metals which may be found in certain geological materials.

MANGANESE DIOXIDE

ID: 1313-13-9

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:45**

%: **0.0000 - 4.0000** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Ceramic body**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Australia	H302 - Harmful if swallowed [Acute toxicity (oral) - Category 4]
MAM	GHS - New Zealand	Acute oral toxicity category 4
	EC - CEPA DSL	Persistent
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MUL	EC - CEPA DSL	Inherently Toxic to Humans (iTH)
GEN	GHS - Japan	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1
MUL	German FEA - Substances Hazardous to Waters	Class 1 - Low Hazard to Waters
MUL	Québec CSST - WHMIS 1988	Class D2B - Toxic material causing other toxic effects
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H302 - Harmful if swallowed [Acute toxicity (oral) - Category 4]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H332 - Harmful if inhaled [Acute toxicity (inhalation) - Category 4]
MAM	GHS - Australia	H332 - Harmful if inhaled [Acute toxicity (inhalation) - Category 4]
AQU	GHS - Japan	H413 - May cause long lasting harmful effects to aquatic life [Hazardous to the aquatic environment (chronic) - Category 4]
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
REP	GHS - New Zealand	Reproductive toxicity category 2
REP	GHS - New Zealand	Effects on or via lactation
PHY	Québec CSST - WHMIS 1988	Class C - Oxidizing materials

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products

SUBSTANCE NOTES: GreenScreen Benchmark® assessment score of BM-1 was provided by the HPD Builder Tool. Substance not used in every formulation; contact manufacturer if more information is required.

MANGANESE(2+) SULFATE MONOHYDRATE

ID: 10034-96-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:45**

%: **0.0000 - 3.0000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Coating**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MAM	GHS - Australia	H302 - Harmful if swallowed [Acute toxicity (oral) - Category 4]
MAM	GHS - New Zealand	Acute oral toxicity category 4
GEN	GHS - Japan	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1
MUL	Québec CSST - WHMIS 1988	Class D2B - Toxic material causing other toxic effects
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2
EYE	GHS - Australia	H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products

SUBSTANCE NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

FERRIC OXIDE

ID: 1309-37-1

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:46**

%: **0.0000 - 3.0000** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Coating**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
	EC - CEPA DSL	Persistent
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
MAM	GHS - Japan	H335 or H336 [Specific target organs/systemic toxicity following single exposure - Category 3]
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]
CAN	IARC	Group 3 - Agent is not classifiable as to its carcinogenicity to humans

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: May also represent impurity of various geological materials. GreenScreen Benchmark® assessment score of BM-1 was provided by the HPD Builder Tool. Substance not used in every formulation; contact manufacturer if more information is required.

UNDISCLOSED ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:47**

%: **0.0000 - 1.5000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 1 - Low Hazard to Waters

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
EXEMPT	European Union / European Commission (EU EC)	EU - REACH Exemptions Exempted from REACH Annex IV listing due to intrinsic safety
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE SCIL Green Circle - Verified Low Concern

SUBSTANCE NOTES: Substance to remain proprietary to manufacturer. Substance has been screened against HPD Priority Lists using the HPD Builder with results disclosed. Substance not used in every formulation; contact manufacturer if more information is required.

UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:46**

%: **0.0000 - 1.5000** GreenScreen: **BM-3dg** RC: **None** NANO: **No** SUBSTANCE ROLE: **Surface modifier**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MUL	Québec CSST - WHMIS 1988	Class D2A - Very toxic material causing other toxic effects

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE SCIL Green Circle - Verified Low Concern

SUBSTANCE NOTES: Substance to remain proprietary to manufacturer. Substance has been screened against HPD Priority Lists using the HPD Builder with results disclosed. GreenScreen Benchmark® assessment score of BM-3dg was provided by the HPD Builder Tool. Substance not used in every formulation; contact manufacturer if more information is required.

SODIUM CARBONATE

ID: **497-19-8**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:49**

%: **0.0000 - 1.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Flux**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
SKI	GHS - New Zealand	Skin irritation category 2
EYE	GHS - New Zealand	Eye irritation category 2
	EC - CEPA DSL	Persistent
MAM	GHS - New Zealand	Acute inhalation toxicity category 4
MUL	German FEA - Substances Hazardous to Waters	Class 1 - Low Hazard to Waters
MUL	Québec CSST - WHMIS 1988	Class D2B - Toxic material causing other toxic effects
PHY	Québec CSST - WHMIS 1988	Class E - Corrosive materials
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
MAM	GHS - Japan	H335 or H336 [Specific target organs/systemic toxicity following single exposure - Category 3]
MAM	GHS - Australia	H335 - May cause respiratory irritation [Specific target organ toxicity - single exposure; Respiratory tract irritation - Category 3]
MAM	GHS - Japan	H332 - Harmful if inhaled [Acute toxicity (inhalation: dust, mist) - Category 4]
EYE	GHS - Australia	H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE SCIL Green Circle - Verified Low Concern

SUBSTANCE NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

GLASS, OXIDE, CHEMICALS

ID: 65997-17-3

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:48**

%: **0.0000 - 1.0000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Flux**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	EC - CEPA DSL	Persistent
MUL	Québec CSST - WHMIS 1988	Class D2A - Very toxic material causing other toxic effects

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
EXEMPT	European Union / European Commission (EU EC)	EU - REACH Exemptions Exempted from REACH Annex V listing due to intrinsic safety
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE SCIL Green Circle - Verified Low Concern

SUBSTANCE NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

HAEMATITE

ID: 1317-60-8

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:47**

%: **Impurity/Residual** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	IARC	Group 3 - Agent is not classifiable as to its carcinogenicity to humans

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Potential impurity of Ferric Oxide, as per supplier documentation.

MAGNESIUM SULFATE, 7-HYDRATE

ID: 10034-99-8

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:48**

%: **0.0000 - 1.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Coating**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	EC - CEPA DSL	Persistent
MUL	German FEA - Substances Hazardous to Waters	Class 1 - Low Hazard to Waters

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE SCIL Green Circle - Verified Low Concern

SUBSTANCE NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

FELDSPAR ID: **68476-25-5**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:49**

%: **0.0000 - 1.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Flux**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

BARIUM CARBONATE ID: **513-77-9**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:50**

%: **0.0000 - 1.0000** GreenScreen: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MAM	GHS - Australia	H302 - Harmful if swallowed [Acute toxicity (oral) - Category 4]
MAM	GHS - New Zealand	Acute oral toxicity category 4
	EC - CEPA DSL	Persistent
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MUL	EC - CEPA DSL	Inherently Toxic to Humans (iTH)
CAN	US EPA - IRIS Carcinogens	(1986) Group D - Not classifiable as to human carcinogenicity
MUL	German FEA - Substances Hazardous to Waters	Class 1 - Low Hazard to Waters
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H302 - Harmful if swallowed [Acute toxicity (oral) - Category 4]
MAM	Québec CSST - WHMIS 1988	Class D1B - Toxic material causing immediate and serious toxic effects
MAM	GHS - Japan	H301 - Toxic if swallowed [Acute Toxicity (oral) - Category 3]

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Cosmetics & Personal Care Products

SUBSTANCE NOTES: **Prevents efflorescence. GreenScreen Benchmark® assessment score of BM-2 was provided by the HPD Builder Tool. Substance not used in every formulation; contact manufacturer if more information is required.**

KAOLIN ID: **1332-58-7**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:50**

%: **0.0000 - 1.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Ceramic body**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
	EC - CEPA DSL	Persistent
MUL	Québec CSST - WHMIS 1988	Class D2A - Very toxic material causing other toxic effects

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE SCIL Green Circle - Verified Low Concern

SUBSTANCE NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

KAOLINITE

ID: 1318-74-7

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:51**

%: **0.0000 - 1.0000** GreenScreen: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Ceramic body**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Synonym: Ball clay, AL2(OH)4(SI2O5). Also represents potential impurity of Ferric Oxide, as per supplier documentation. Substance not used in every formulation; contact manufacturer if more information is required.

AMMONIUM LIGNOSULFONATE

ID: 8061-53-8

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:51**

%: **0.0000 - 0.6000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MUL	EC - CEPA DSL	Inherently Toxic to Humans (iTH)

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

CERAMIC MATERIALS AND WARES, CHEMICALS

ID: 66402-68-4

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:52**

%: **0.0000 - 0.5000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Flux**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
	EC - CEPA DSL	Persistent
MUL	EC - CEPA DSL	Inherently Toxic to Humans (iTH)
MUL	EC - CEPA DSL	Inherently Toxic in the Environment (iTE)

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
EXEMPT	European Union / European Commission (EU EC)	EU - REACH Exemptions Exempted from REACH Annex V listing due to intrinsic safety
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE SCIL Green Half-Circle - Expected Low Concern

SUBSTANCE NOTES: Substance not used in every formulation; contact manufacturer if more information is required.

RUTILE TITANIUM DIOXIDE

ID: **1317-80-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:52**

%: **0.0000 - 0.1000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Coating**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CAN	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
	EC - CEPA DSL	Persistent
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MUL	EC - CEPA DSL	Inherently Toxic to Humans (iTH)
AQU	GHS - Japan	H413 - May cause long lasting harmful effects to aquatic life [Hazardous to the aquatic environment (chronic) - Category 4]
EYE	GHS - Japan	H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2B]
MAM	GHS - Japan	H335 or H336 [Specific target organs/systemic toxicity following single exposure - Category 3]

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Cosmetics & Personal Care Products

SUBSTANCE NOTES: Form-specific hazards: airborne particles of respirable size – occupational setting. Substance not used in every formulation; contact manufacturer if more information is required.

ZINC OXIDE ID: **1314-13-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-28 11:59:53**

%: **0.0000 - 0.1000** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Coating**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
	EC - CEPA DSL	Persistent
CAN	US EPA - IRIS Carcinogens	(1986) Group D - Not classifiable as to human carcinogenicity
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - Japan	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]
AQU	GHS - Japan	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
AQU	GHS - Australia	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
MUL	EC - CEPA DSL	Inherently Toxic in the Environment (iTE)
REP	GHS - Japan	H361 - Suspected of damaging fertility or the unborn child [Toxic to reproduction - Category 2]
AQU	GHS - Malaysia	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
AQU	GHS - Malaysia	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]

ADDITIONAL LISTINGS	AGENCY	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products

SUBSTANCE NOTES: GreenScreen Benchmark® assessment score of BM-1 was provided by the HPD Builder Tool. Substance not used in every formulation; contact manufacturer if more information is required.

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 — **Inherently non-emitting source per LEED**

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: All
CERTIFICATE URL:

ISSUE DATE: 2022-07-28
EXPIRY DATE:

CERTIFIER OR LAB: None

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.

No accessories are required for this product.

Section 5: General Notes

Acme is an industry leader in environmental stewardship. All Acme Brick are fired with clean-burning natural gas, and advances in production techniques consistently reduce the energy required to produce a brick. A man-made feature at an Acme facility in Arkansas uses bioremediation to reduce acidity in water runoff; it has been the subject of numerous case studies. Our brick are delivered to the job site in tightly bound cubes that leave almost no packaging waste. Finally, at a building's end of life, the Acme Brick used in its construction can often be repurposed with minimal processing. Acme's Environmental Health & Safety staff assures compliance with all applicable environmental standards, and Acme's workplace safety record leads the brick manufacturing industry.

Acme Brick Company manufactures clay brick in 15 plants located in 4 U.S. states: Alabama (2 plants), Arkansas (3), Oklahoma (2), and Texas (7). All these facilities are located in or near major population centers. Substantially all the clay used in manufacture comes from naturally occurring deposits on or near the site of each plant.

Acme Brick Company is based in Fort Worth, Texas. Since 2000, Acme has been a wholly owned subsidiary of Berkshire Hathaway, Inc., based in Omaha, Nebraska.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Acme Brick Company**
ADDRESS: **3024 Acme Brick Plaza**
Fort Worth TX 76109, USA
WEBSITE: **https://www.brick.com/**

CONTACT NAME: **Britt Stokes**
TITLE: **Director of Marketing**
PHONE: **(817) 390-1540**
EMAIL: **britt@brick.com**

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

KEY

Hazard Types

AQU Aquatic toxicity
CAN Cancer
DEV Developmental toxicity
END Endocrine activity
EYE Eye irritation/corrosivity
GEN Gene mutation
GLO Global warming
LAN Land toxicity
MAM Mammalian/systemic/organ toxicity
MUL Multiple
NEU Neurotoxicity
NF Not found on Priority Hazard Lists
OZO Ozone depletion
PBT Persistent, bioaccumulative, and toxic
PHY Physical hazard (flammable or reactive)
REP Reproductive
RES Respiratory sensitization
SKI Skin sensitization/irritation/corrosivity
UNK Unknown

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 (due to insufficient data)
LT-P1 List Translator Possible 1 (Possible Benchmark-1)
LT-1 List Translator 1 (Likely Benchmark-1)
LT-UNK List Translator Benchmark Unknown
NoGS No GreenScreen.

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, www.greenscreenchemicals.org, and Best Practices for Hazard Screening on the HPDC website (hpd-collaborative.org).

Recycled Types

PreC Pre-consumer recycled content
PostC Post-consumer recycled content
UNK Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

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.