

HPD UNIQUE IDENTIFIER: 248492589056

CLASSIFICATION: 07 21 19 Foamed-In-Place Insulation

PRODUCT DESCRIPTION: Heatlok Soya HFO / Polarfoam Soya HFO are two component, low GWP, closed cell, spray applied, rigid polyurethane foam systems. This foam product has been tested by an independent recognized laboratory and is the first product that surpasses the requirements outlined in the most recent and strenuous standard CAN/ULC S705.1-2015 “Standard for thermal insulation – Spray applied rigid polyurethane foam, medium density – Material Specification”. Heatlok Soya HFO/ Polarfoam Soya HFO material complies with the requirements of National Building Code of Canada and is listed by the National Research Council Canada under CCMC Listing 14078-L, since 2017 as an insulation product. This product is commonly used as a thermal insulation product, air barrier, vapour barrier for interior, exterior applications above and below grade. Heatlok Soya HFO / Polarfoam Soya HFO uses recycled plastic materials, rapidly renewable soy oils, and 4th generation blowing agent with zero ozone depleting potential and < 1 global warming potential. This product meets all the requirements of the Paris, Kyoto and Montreal protocols. Heatlok Soya HFO/ Polarfoam Soya HFO is applied exclusively by CALIBER QAP licensed installers and contractors in accordance with the standard CAN/ULC S705.2.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format	Threshold Level	Residuals/Impurities Evaluation	<i>For all contents above the threshold, the manufacturer has:</i>
<input checked="" type="radio"/> Nested Materials Method	<input type="radio"/> 100 ppm	Completed in 2 of 2 Materials	Characterized <input checked="" type="radio"/> Yes <input type="radio"/> No
<input type="radio"/> Basic Method	<input checked="" type="radio"/> 1,000 ppm	Explanation(s) provided for Residuals/Impurities?	<i>Provided weight and role.</i>
Threshold Disclosed Per	<input type="radio"/> Per GHS SDS	<input checked="" type="radio"/> Yes <input type="radio"/> No	Screened <input type="radio"/> Yes <input checked="" type="radio"/> No
<input type="radio"/> Material	<input type="radio"/> Other		<i>Provided screening results using HPDC-approved methods.</i>
<input checked="" type="radio"/> Product			Identified <input type="radio"/> Yes <input checked="" type="radio"/> No
			<i>Provided name and CAS RN or other identifier.</i>

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

UNDISCLOSED [POLYMETHYLENE POLYPHENYL ISOCYANATE LT-UNK] CAN | RES | EYE | SKI | MAM 4,4'-DIPHENYLMETHANE DIISOCYANATE LT-UNK] CAN | RES | SKI | EYE | MAM]
POLYURETHANE RESIN B-SIDE [B-SIDE REMAINING INGREDIENTS (NOT DECLARED AS HAZARDOUS SUBSTANCES IN SDS) Not Screened]
TRIS(2-CHLORO-1-METHYLETHYL) PHOSPHATE BM-U]
END | MUL | AQU | MAM | REP DIBUTYLTIN DILAURATE LT-1 | END | DEV | REP | MUL | CAN | MAM | GEN | SKI | EYE | AQU ETHYLENE GLYCOL LT-1 | END | DEV | MAM | EYE | SKI DIETHYLENE GLYCOL (2,2 - OXIBISETHANOL) LT-P1 | END | MAM | REP GLYCERIN (GLYCEROL) LT-UNK 1,1,3,3-TETRAMETHYLGUANIDINE LT-UNK | SKI | EYE]

Number of Greenscreen BM-4/BM3 contents ... 0

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

No Special Conditions applied.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

Material (g/l): 0.35 Regulatory (g/l): N/A
 Does the product contain exempt VOCs: Yes
 Are colorants available that do not increase the VOC content of the base paint when tinted: N/A

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: UL/GreenGuard Gold Certified
 VOC content: UL/GreenGuard Gold Certified

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?

Yes

No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2023-10-02

PUBLISHED DATE: 2023-10-02

EXPIRY DATE: 2026-10-02

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

UNDISCLOSED

#: 50.0000 - 50.0000

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: No residuals or Impurities in the material.

OTHER MATERIAL NOTES: The material, marked as UNDISCLOSED, is part A (A-100) of the spray foam insulation product. The material name is withheld for confidentiality purposes.

GHS classification in accordance with 29 CFR 1910.1200

Acute toxicity (Inhalation): Category 4

Skin irritation: Category 2

Eye irritation: Category 2B

Respiratory sensitisation: Category 1

Skin sensitisation: Category 1

Specific target organ toxicity - single exposure: Category 3 (Respiratory system)

GHS Hazard Statements

H315 + H320 Causes skin and eye irritation.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

Precautionary statements:

Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves.

P285 In case of inadequate ventilation wear respiratory protection.

POLYMETHYLENE POLYPHENYL ISOCYANATE

ID: 9016-87-9

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2023-10-02 12:38:21

#: 50.0000 - 70.0000

GreenScreen: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Intermediate

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
EYE	GHS - New Zealand	Eye irritation category 2
SKI	GHS - Australia	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
EYE	GHS - Australia	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
CAN	GHS - Japan	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
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]
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
MAM	Québec CSST - WHMIS 1988	Class D1A - Very toxic material causing immediate and serious toxic effects
MAM	GHS - Australia	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2]
MAM	GHS - Japan	H330 - Fatal if inhaled [Acute toxicity (inhalation: dust, mist) - Category 2]
CAN	GHS - Australia	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Formulated Consumer Products

SUBSTANCE NOTES: GHS Hazard Statements

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H332: Harmful if inhaled

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335: May cause respiratory irritation

Precautionary Statement Codes

P261, P264, P271, P272, P280, P285, P302+P352, P304+340+P312, P305+P351+P338, P333+P313, P337+P313, P342+P311, P362, P403+P233, P405, and P501

4,4'-DIPHENYLMETHANE DIISOCYANATE

ID: 101-68-8

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2023-10-02 12:38:21**

%: **30.0000 - 50.0000**

GreenScreen: **LT-UNK**

RC: **None**

NANO: **No**

SUBSTANCE ROLE: **Intermediate**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
SKI	GHS - New Zealand	Skin irritation category 2
EYE	GHS - New Zealand	Eye irritation category 2
SKI	GHS - Australia	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
EYE	GHS - Australia	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
CAN	GHS - New Zealand	Carcinogenicity category 2
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]
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen

SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]
SKI	GHS - New Zealand	Skin sensitisation category 1
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
EYE	GHS - Korea	H319 - Causes serious eye irritation [Serious eye damage/irritation - Category 2]
SKI	GHS - Korea	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
MAM	Québec CSST - WHMIS 1988	Class D1A - Very toxic material causing immediate and serious toxic effects
MAM	GHS - Australia	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2]
MAM	GHS - Japan	H330 - Fatal if inhaled [Acute toxicity (inhalation: dust, mist) - Category 2]
CAN	GHS - Australia	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
MAM	GHS - Korea	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Formulated Consumer Products

SUBSTANCE NOTES: GHS Hazard Statements

- H315: Causes skin irritation
- H317: May cause an allergic skin reaction
- H332: Harmful if inhaled
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H335: May cause respiratory irritation

Precautionary Statement Codes

P261, P264, P271, P272, P280, P285, P302+P352, P304+340+P312, P305+P351+P338, P333+P313, P337+P313, P342+P311, P362, P403+P233, P405, and P501

POLYURETHANE RESIN B-SIDE %: 50.0000 - 50.0000

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Known Residual: Ethylene glycol CAS #: 107-21-1 Percentage by weight: ≥1 - <3 Source: pharosproject.net

OSHA/HCS Status:

This material is classified hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the Substance or Mixture:

- SKIN CORROSION/IRRITATION - Category 2
- SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
- TOXIC TO REPRODUCTION (Fertility) - Category 1A
- TOXIC TO REPRODUCTION (Unborn child) - Category 1A
- AQUATIC HAZARD (ACUTE) - Category 3
- AQUATIC HAZARD (LONG-TERM) - Category 3

Hazard Statements:

- H319 - Causes serious eye irritation
- H315 - Causes skin irritation
- H360 - May damage fertility or the unborn child
- H412 - Harmful to aquatic life with long lasting effects

Prevention:

- P201 - Obtain special instructions before use
- P202 - Do not handle until all safety precautions have been read and understood
- P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing
- P273 - Avoid release to the environment
- P264 - Wash hands thoroughly after handling

B-SIDE REMAINING INGREDIENTS (NOT DECLARED AS HAZARDOUS SUBSTANCES IN SDS)

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **Not Screened**

%: **71.9500 - 71.9500** GreenScreen: **Not Screened** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
Hazard Screening not performed		

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
Additional Hazard Screening not performed		

SUBSTANCE NOTES: This is not a substance. It's the sum of all other ingredients not declared as hazardous in the product's Safety Data Sheets and therefore not accounted for in the HPD. Those ingredients account for 71.95% of the product's resin and are added to balance out material weights in the HPD.

TRIS(2-CHLORO-1-METHYLETHYL) PHOSPHATE

ID: **13674-84-5**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-10-02 12:38:21**

%: **10.0000 - 25.0000** GreenScreen: **BM-U** RC: **None** NANO: **No** SUBSTANCE ROLE: **Flame retardant**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]
REP	GHS - Japan	H361 - Suspected of damaging fertility or the unborn child [Toxic to reproduction - Category 2]
REP	GHS - Australia	H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child [Reproductive toxicity - Category 2]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Core Restrictions
RESTRICTED LIST	International Living Future Institute (ILFI)	Living Building Challenge 4.0 - Red List of Materials & Chemicals - Effective April 1, 2023 Red List substances to avoid in Living Building Challenge V4.0 projects

SUBSTANCE NOTES: Precautionary Statement Codes
P264 and P501

DIBUTYLTIN DILAURATE

ID: 77-58-7

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-10-02 12:38:22**

%: **0.1000 - 5.0000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Catalyst**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
END	ChemSec - SIN List	Endocrine Disruption
DEV	MAK	Pregnancy Risk Group B

REP	EU - Annex VI CMRs	Reproductive Toxicity - Category 1B
MUL	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]
REP	GHS - Australia	H360FD - May damage fertility. May damage the unborn child [Reproductive toxicity - Category 1A or 1B]
REP	EU - GHS (H-Statements) Annex 6 Table 3-1	H360FD - May damage fertility. May damage the unborn child [Reproductive toxicity - Category 1A or 1B]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
GEN	EU - GHS (H-Statements) Annex 6 Table 3-1	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
SKI	GHS - New Zealand	Skin irritation category 2
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
GEN	GHS - Australia	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
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
SKI	GHS - Australia	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
MAM	GHS - New Zealand	Acute oral toxicity category 2
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 - New Zealand	Hazardous to the aquatic environment - chronic category 1

GEN	EU - Annex VI CMRs	Mutagen - Category 2
MAM	GHS - New Zealand	Acute dermal toxicity category 3
MAM	GHS - Australia	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2]
EYE	GHS - Japan	H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2A]
MAM	GHS - Japan	H330 - Fatal if inhaled [Acute toxicity (inhalation: dust, mist) - Category 2]
MAM	GHS - Japan	H301 - Toxic if swallowed [Acute Toxicity (oral) - Category 3]
REP	EU - REACH Annex XVII CMRs	Reproductive toxicants: Category 1B
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Core Restrictions
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	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 (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Formulated Consumer Products

SUBSTANCE NOTES: GHS Hazard Statements

H360: May damage fertility; May damage the unborn child

Precautionary Statement Codes

P201, P202, P264, P280, P305+P351+P338, P308+P313, P405, and P501

ETHYLENE GLYCOL

ID: 107-21-1

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2023-10-02 12:38:22**

%: **Impurity/Residual**

GreenScreen: **LT-1**

RC: **None**

NANO: **No**

SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
DEV	CA EPA - Prop 65	Developmental toxicity
DEV	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents

SUBSTANCE NOTES: Precautionary Statement Codes
P264 and P501

DIETHYLENE GLYCOL (2,2 - OXIBISETHANOL)

ID: 111-46-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2023-10-02 12:38:22

%: 1.0000 - 3.0000 GreenScreen: LT-P1 RC: None NANO: No SUBSTANCE ROLE: Monomer

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
REP	GHS - Japan	H361 - Suspected of damaging fertility or the unborn child [Toxic to reproduction - Category 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Cosmetics & Personal Care Products

SUBSTANCE NOTES: Precautionary Statement Codes
P264 and P501

GLYCERIN (GLYCEROL)

ID: 56-81-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-10-02 12:38:22**

%: **1.0000 - 3.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Monomer**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents

SUBSTANCE NOTES:

1,1,3,3-TETRAMETHYLGUANIDINE

ID: 80-70-6

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-10-02 12:38:22**

%: **1.0000 - 3.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Catalyst**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
SKI	GHS - New Zealand	Skin corrosion category 1C
EYE	GHS - New Zealand	Serious eye damage category 1

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Precautionary Statement Codes
P264, P280, P305+P351+P338, P405, and P501

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	ISSUE DATE: 2018-11-08	CERTIFIER OR LAB: UL
APPLICABLE FACILITIES: Huntsman Building Solutions - Boisbriand Facility 870 Boulevard du Curé-Boivin, Boisbriand QC J7G 2A7 Canada	EXPIRY DATE:	
CERTIFICATE URL: https://spot.ul.com/main-app/products/catalog/?keywords=AIRM%C3%89TIC+SOYA+HFO		
CERTIFICATION AND COMPLIANCE NOTES: GREENGUARD GOLD Certificate Number: 133163-420 In accordance with California Department of Public Health (CDPH). Product tested in accordance with UL 2821 test method to show compliance to emission limits on UL 2818. Section 7.1 and 7.2.		

VOC CONTENT	UL/GreenGuard Gold Certified	
CERTIFYING PARTY: Third Party	ISSUE DATE: 2018-11-08	CERTIFIER OR LAB: UL
APPLICABLE FACILITIES: Huntsman Building Solutions - Boisbriand Facility 870 Boulevard du Curé-Boivin, Boisbriand QC J7G 2A7 Canada	EXPIRY DATE:	
CERTIFICATE URL: https://spot.ul.com/main-app/products/catalog/?keywords=AIRM%C3%89TIC+SOYA+HFO		
CERTIFICATION AND COMPLIANCE NOTES: GREENGUARD GOLD Certificate Number: 133163-420 In accordance with California Department of Public Health (CDPH). Product tested in accordance with UL 2821 test method to show compliance to emission limits on UL 2818. Section 7.1 and 7.2.		

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

UNDISCLOSED MATERIAL

The product's second material, marked as UNDISCLOSED, is part A (A-100) of the spray foam insulation product. The material name is withheld for confidentiality purposes.

MANUFACTURER INFORMATION

MANUFACTURER: Huntsman Building Solutions
ADDRESS: 870 Boulevard du Curé-Boivin
 Boisbriand, Québec J7G 2A7
COUNTRY: Canada

WEBSITE: <https://huntsmanbuildingsolutions.com/>
CONTACT NAME: Mickel Maalouf
TITLE: Manager, Sustainable Building Science
PHONE: 514-838-8113
EMAIL: mmaalouf@huntsmanbuilds.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	LAN Land toxicity	PHY Physical hazard (flammable or reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive
DEV Developmental toxicity	MUL Multiple	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	NF Not found on Priority Hazard Lists	UNK Unknown
GEN Gene mutation	OZO Ozone depletion	
GLO Global warming	PBT Persistent, bioaccumulative, and toxic	

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible 1 (Possible Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS No GreenScreen.
BM-U Benchmark Unspecified (due to insufficient data)	

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

