

HPD UNIQUE IDENTIFIER: 2535600256000

CLASSIFICATION: 07 22 16 Roof Board Insulation

PRODUCT TYPE: Polyisocyanurate Foam-Plastic Board (Insulation)

PRODUCT DESCRIPTION: SOPRA-ISO is a polyisocyanurate thermal insulation board used in roofing assemblies, composed of a closed-cell, rigid foam core faced on both surfaces with a glass fiber reinforced cellulosic facer.

Section 1: Summary

Nested Method / Material Threshold

CONTENT INVENTORY

Inventory Reporting Format	Threshold Level	Residuals/Impurities Evaluation	For all contents above the threshold, the manufacturer has:
☒ Nested Materials Method ☐ Basic Method	☐ 100 ppm ☒ 1,000 ppm ☐ Per GHS SDS ☐ Other	Completed in 2 of 2 Materials Explanation(s) provided for Residuals/Impurities? ☒ Yes ☐ No	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

POLYISOCYANURATE FOAM [POLYMERIC MDI (PMDI) LT-UNK] CAN | RES | EYE | SKI | MAM **POLYETHER POLYOL LT-UNK PENTANE LT-P1** MUL | PHY | AQU | MAM | EYE *DIETHYLENE GLYCOL (DIETHYLENE GLYCOL) LT-P1* END | MAM | REP **TRIS(1-CHLORO-2-PROPYL)PHOSPHATE (TCPP, TMCP) BM-U** END | MUL | AQU | MAM | REP **2-ETHYLHEXANOIC ACID, POTASSIUM SALT LT-1** | REP | DEV | SKI | EYE **POTASSIUM ACETATE LT-UNK BIS(2-DIMETHYLAMINOETHYL) (METHYL)AMINE LT-P1** MUL | SKI | MAM | EYE **POLYSILOXANE NoGS WATER BM-4 METHYLENE BISPHENYL DIISOCYANATE (PURE MDI) (METHYLENE BISPHENYL DIISOCYANATE (PURE MDI)) LT-UNK** | CAN | RES | SKI | EYE | MAM *DIPHENYLMETHANE-2,4'- DIISOCYANATE (2,4'-MDI) (DIPHENYLMETHANE-2,4'- DIISOCYANATE (2,4'-MDI)) LT-UNK* | SKI | EYE | CAN | MAM *DIPHENYLMETHANE-2,2'-DIISOCYANATE (2,2'-MDI) (DIPHENYLMETHANE-2,2'-DIISOCYANATE (2,2'-MDI)) LT-UNK* | SKI | EYE | CAN | MAM **GLASS FIBER REINFORCED CELLULOSIC FACER [CELLULOSE, MICROCRYSTALLINE (KRAFT PAPER (CELLULOSE, MICROCRYSTALLINE)) LT-UNK SOLID GLASS AND GLASS / MINERAL FIBER (SEE VARIANTS) LT-UNK]**

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

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

SOPRA-ISO is available in various thicknesses, up to 6 inches. The percentage of foam and facer will vary with thickness, which explains why ranges were given. The exact composition of the polyisocyanurate foam was not disclosed to protect proprietary information; ranges were also given. No substance other than those listed in this HPD have been added to the finished product during its manufacturing. Residuals could not be considered for all materials because information was not provided by all raw materials vendors.

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: CDPH Standard Method V1.2 (Section 01350/CHPS) - Classroom & Office scenario

VOC emissions: UL/GreenGuard Gold Certified

Fire resistance of roof assembly: CAN/ULC-S107 (Drummondville)

Resistance to dynamic wind uplift: CSA A123.21 (Drummondville)

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Option 1.

Pre-checked for LEED v4.1 Option 1.

Third Party Verified? ☐ Yes ☒ No	PREPARER: Self-Prepared VERIFIER: VERIFICATION #:	SCREENING DATE: 2025-06-26 PUBLISHED DATE: 2025-06-26 EXPIRY DATE: 2028-06-26
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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

POLYISOCYANURATE FOAM			%: 66.3000 - 92.4000		
MATERIAL THRESHOLD: 1000 ppm		RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes		MATERIAL TYPE: Polymeric Material	
RESIDUALS AND IMPURITIES NOTES: Residuals were considered through information disclosed to the manufacturer by the materials suppliers.					
OTHER MATERIAL NOTES: Percentage of foam in SOPRA-ISO varies with thickness of the product as follows:					
1-inch SOPRA-ISO: 66.3% foam;					
2-inch SOPRA-ISO: 79.0% foam;					
4-inch SOPRA-ISO: 88.3% foam;					
5-inch SOPRA-ISO: 92.4% foam.					
The exact percentage of substances in foam were not disclosed to protect proprietary information. Ranges were given.					

POLYMERIC MDI (PMDI)				ID: 9016-87-9
HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2025-06-26 5:39:25		
%: 55.0000 - 65.0000	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 (C2CP II)	C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
		Formulated Consumer Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024
		All Products
SUBSTANCE NOTES: Polymeric MDI reacts completely during production of the foam.		

POLYETHER POLYOL				ID: 9082-00-2
HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-06-26 5:39:26	
%: 25.0000 - 30.0000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Intermediate
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: Polyester polyol reacts completely during foam production.				

PENTANE				ID: 109-66-0
HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-06-26 5:39:26	
%: 3.0000 - 10.0000	GreenScreen: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Blowing agent

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
EYE	GHS - New Zealand	Eye irritation category 2
AQU	GHS - Australia	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
AQU	GHS - Japan	H401 - Toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 2]
PHY	GHS - New Zealand	Flammable liquids category 2
PHY	GHS - Japan	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
PHY	GHS - Malaysia	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
PHY	GHS - Australia	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
AQU	GHS - Malaysia	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H304 - May be fatal if swallowed and enters airways [Aspiration hazard - Category 1]
MAM	GHS - Malaysia	H304 - May be fatal if swallowed and enters airways [Aspiration hazard - Category 1]
MAM	GHS - Australia	H304 - May be fatal if swallowed and enters airways [Aspiration hazard - Category 1]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List
		Some Solvents

SUBSTANCE NOTES: Pentane isomer(s) used as blowing agent. Exact nature and percentages of isomers are not disclosed to protect proprietary information.

DIETHYLENE GLYCOL (DIETHYLENE GLYCOL)

ID: 111-46-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library				HAZARD SCREENING DATE: 2025-06-26 5:39:27	
%: 3.0000 - 7.0000	GreenScreen: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Impurity/Residual	
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 v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
		Cosmetics & Personal Care Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024
		Cosmetics and Personal Care Products
SUBSTANCE NOTES: This substance is an impurity found in polyether polyol and potassium-based catalyst.		

TRIS(1-CHLORO-2-PROPYL)PHOSPHATE (TCPP, TMCP)

ID: 13674-84-5

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-06-26 5:39:27	
%: 0.1000 - 5.0000	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 3 - Severe 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 (C2CP II)	C2C Certified v4.0 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 February 1, 2025		
		Red List substances to avoid in Living Building Challenge V4.0 projects		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024		
		Avoidance of Organohalogens and Functionally Related Chemical Classes of Concern		

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-06-26 5:39:25	
%: 0.1000 - 2.0000	GreenScreen: LT-1	RC: None	NANO: No	SUBSTANCE ROLE: Catalyst
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
REP	EU - Annex VI CMRs		Reproductive Toxicity - Category 1B	
DEV	EU - GHS (H-Statements) Annex 6 Table 3-1		H360D - May damage the unborn child [Reproductive toxicity - Category 1A or 1B]	
SKI	GHS - Australia		H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]	
EYE	GHS - Australia		H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]	
DEV	GHS - Australia		H361 - Suspected of damaging fertility or the unborn child [Reproductive toxicity - Category 2]	
REP	EU - REACH Annex XVII CMRs		Reproductive toxicants: Category 1B	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)		C2C Certified v4.0 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 v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022	
			Formulated Consumer Products	
SUBSTANCE NOTES: Catalyst for polymerization.				

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-06-26 5:39:26	
?: 0.1000 - 1.0000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Catalyst
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: Catalyst for polymerization.				

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-06-26 5:39:26	
?: 0.1000 - 1.0000	GreenScreen: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Catalyst

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H311 - Toxic in contact with skin [Acute toxicity (dermal) - Category 3]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
EYE	GHS - New Zealand	Serious eye damage category 1
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
SKI	GHS - Australia	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
SKI	GHS - New Zealand	Skin corrosion category 1B
MAM	GHS - Japan	H311 - Toxic in contact with skin [Acute Toxicity (dermal) - Category 3]
MAM	GHS - Australia	H311 - Toxic in contact with skin [Acute toxicity (dermal) - Category 3]
MAM	GHS - New Zealand	Acute dermal toxicity category 3
MAM	GHS - New Zealand	Acute oral toxicity category 3
SKI	GHS - Japan	H314 - Causes severe skin burns and eye damage [Skin corrosion / irritation - Category 1B]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List
		Some Solvents

SUBSTANCE NOTES: Catalyst for polymerization.

POLYSILOXANE				ID: 9011-19-2
HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-06-26 5:39:27	
%: 0.1000 - 1.0000	GreenScreen: NoGS	RC: None	NANO: No	SUBSTANCE ROLE: Surfactant
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: Foam control agent.				

WATER				ID: 7732-18-5
HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-06-26 5:39:27	
?: 0.1000 - 1.0000	GreenScreen: BM-4	RC: None	NANO: No	SUBSTANCE ROLE: Blowing agent
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
EXEMPT	European Union / European Commission (EU EC)	EU - REACH Exemptions
		Exempted from REACH Annex IV listing due to intrinsic safety
SUBSTANCE NOTES: Plain water		

METHYLENE BISPHENYL DIISOCYANATE (PURE MDI)
(METHYLENE BISPHENYL DIISOCYANATE (PURE MDI))

ID: 101-68-8

HAZARD DATA SOURCE:	Pharos Chemical and Materials Library	HAZARD SCREENING DATE:	2025-06-26 5:39:28
%: 0.0000 - 0.1000	GreenScreen: LT-UNK	RC: None	NANO: No
SUBSTANCE ROLE: Impurity/Residual			

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 v4.0 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 v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
		Formulated Consumer Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024
		All Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024
		Cosmetics and Personal Care Products
SUBSTANCE NOTES: This substance is an impurity in polymeric MDI.		

DIPHENYLMETHANE-2,4'- DIISOCYANATE (2,4'-MDI)
(DIPHENYLMETHANE-2,4'- DIISOCYANATE (2,4'-MDI))

ID: 5873-54-1

HAZARD DATA SOURCE: Pharos Chemical and Materials Library				HAZARD SCREENING DATE: 2025-06-26 5:39:29
?: 0.0000 - 0.1000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
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 - 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]		
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]		
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen		
MAM	GHS - Australia	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 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 (C2CP II)	C2C Certified v4.0 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 v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
		Formulated Consumer Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024
		All Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024
		Cosmetics and Personal Care Products
SUBSTANCE NOTES: This substance is an impurity in polymeric MDI.		

DIPHENYLMETHANE-2,2'-DIISOCYANATE (2,2'-MDI)
(DIPHENYLMETHANE-2,2'-DIISOCYANATE (2,2'-MDI))

ID: 2536-05-2

HAZARD DATA SOURCE: Pharos Chemical and Materials Library				HAZARD SCREENING DATE: 2025-06-26 5:39:29
?: 0.0000 - 0.1000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
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 - 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]		
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]		
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen		
MAM	GHS - Australia	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 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 (C2CP II)	C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
		Formulated Consumer Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024
		All Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024
		Cosmetics and Personal Care Products

SUBSTANCE NOTES: This substance is an impurity in polymeric MDI.

GLASS FIBER REINFORCED CELLULOSIC FACER		%: 7.6000 - 33.7000	
MATERIAL THRESHOLD: 1000 ppm		RESIDUALS AND IMPURITIES EVALUATION COMPLETED: No	MATERIAL TYPE: Paper or Cardboard
RESIDUALS AND IMPURITIES NOTES: Residuals were not considered because this information was not disclosed to the manufacturer by the materials suppliers.			
OTHER MATERIAL NOTES: Percentage of cellulosic facer in SOPRA-ISO varies with thickness of the product as follows:			
1-inch SOPRA-ISO: 33.7% facer;			
2-inch SOPRA-ISO: 21.0% facer;			
4-inch SOPRA-ISO: 11.7% facer;			
5-inch SOPRA-ISO: 7.6% facer.			

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-06-26 5:39:30	
%: 90.0000 - 90.0000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Structure component
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: Main base for cellulosic facer material on the SOPRA-ISO boards.				

SOLID GLASS AND GLASS / MINERAL FIBER (SEE VARIANTS)

ID: 65997-17-3

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-06-26 5:39:30	
%: 10.0000 - 10.0000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Structure component
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
EXEMPT	European Union / European Commission (EU EC)		EU - REACH Exemptions	
			Exempted from REACH Annex V listing due to intrinsic safety	
SUBSTANCE NOTES: Continuous filament glass fiber.				

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		CDPH Standard Method V1.2 (Section 01350/CHPS) - Classroom & Office scenario	
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Drummondville, QC, Canada. CERTIFICATE URL: https://spot.ul.com/		ISSUE DATE: 2019-03-29 00:00:00 EXPIRY DATE:	CERTIFIER OR LAB: UL Environment
CERTIFICATION AND COMPLIANCE NOTES: UL Environment Report # 1000577602-1947844.			
VOC EMISSIONS		UL/GreenGuard Gold Certified	
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Drummondville, QC, Canada. CERTIFICATE URL: https://spot.ul.com/main-app/products/detail/606375416f2e19d43629cee3		ISSUE DATE: 2021-03-29 00:00:00 EXPIRY DATE: 2026-03-29 00:00:00	CERTIFIER OR LAB: UL Environment
CERTIFICATION AND COMPLIANCE NOTES: Certificate Number 228127-420.			
FIRE RESISTANCE OF ROOF ASSEMBLY			CAN/ULC-S107 (Drummondville)
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Drummondville, Québec, Canada CERTIFICATE URL: http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/showpage.html?name=TGFU.R19921&ccnshorttitle=Roofing+Systems&objid=1083620758&cfgid=1073741824&version=versionless&parent_id=1073993597&sequence=1			ISSUE DATE: 2012-01-01 00:00:00 EXPIRY DATE:
CERTIFICATION AND COMPLIANCE NOTES: This product is listed in a large number of fire-rated roofing assemblies. These listings are maintained through periodic audits from ULC in the SOPREMA plants.			CERTIFIER OR LAB: Underwriters Laboratories of Canada
RESISTANCE TO DYNAMIC WIND ULPIFT		CSA A123.21 (Drummondville)	
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Drummondville, Québec, Canada CERTIFICATE URL:		ISSUE DATE: 2020-03-19 00:00:00 EXPIRY DATE: 2025-03-19 00:00:00	CERTIFIER OR LAB: Exp
CERTIFICATION AND COMPLIANCE NOTES: This product has been tested in a large number of roofing assemblies. One example of certification report is report SOPI-246544-07-5100. .			
RESISTANCE TO STATIC WIND UPLIFT		FM 4470 (Drummondville)	
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Drummondville, Québec, Canada CERTIFICATE URL:		ISSUE DATE: 2012-01-01 00:00:00 EXPIRY DATE:	CERTIFIER OR LAB: FM Approvals (Factory Mutual)
CERTIFICATION AND COMPLIANCE NOTES: This product is present in a large number of roofing assemblies tested for resistance to wind uplift. FM Approvals Certificate Number 3010173. These listings are maintained through periodic audits from FM in the SOPREMA plants.			
MANAGEMENT		ISO 9001:2015 Quality management systems	
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Facilities covered by this certification: St Julien du Sault, France; Strasbourg, France; Val de Reuil, France; Sorgues, France; Luynes, France; Ambert, France; Cestas, France; La Chapelle Saint Luc, France; Saint Rambert, France; Golbey, France; Drummondville, Québec, Canada; Chilliwack, British Columbia, Canada; Wadsworth, Ohio, USA; Richmond, Québec, Canada; Gulfport, Mississippi, USA; Beauport, Québec, Canada; Oberrosbach, Germany; Grobbendonk, Belgium; Andenne, Belgium; Ijlst, Netherlands; Chignolo d'Isola Bergamo, Italy; Frosinone, Italy; San Vito al Tagliamento, Italy; Verolanuova, Italy; Salgareda, Italy; Blonie, Poland; Spreitenbach, Switzerland; Cham, Switzerland. CERTIFICATE URL: https://www.soprema.ca/wp-content/uploads/2021/10/SOPREMA-ISO-9001-EN-1.pdf		ISSUE DATE: 2024-06-11 00:00:00 EXPIRY DATE: 2027-05-07 00:00:00	CERTIFIER OR LAB: SGS ICS
CERTIFICATION AND COMPLIANCE NOTES: Certificate number FR18/81842815. Although all the plants cited above are covered by the certification, the only plant that manufactures the product covered by this HPD is the plant in Drummondville.			

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.

DUOTACK
MANUFACTURER (OR GENERIC): **SOPREMA**

HPD URL: No HPD available
ACCESSORY TYPE: Adhesive
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: SOPRA-ISO can be installed by various methods. Installation with DUOTACK adhesive (0 g/L VOC content) is one of these methods. DUOTACK is installed in ribbons spaced as specified to obtain required wind uplift resistance. SOPRA-ISO panels are then laid in adhesive.

FASTENER
MANUFACTURER (OR GENERIC): **SOPREMA**

HPD URL: NO HPD available
ACCESSORY TYPE: Fastener
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: SOPRA-ISO can be installed by various methods. Installation with fasteners (screws and plates) is one of these methods. SOPRA-ISO boards are laid down and metal fasteners are screwed through the boards at spacing determined by the required wind uplift resistance.

HOT ASPHALT
MANUFACTURER (OR GENERIC): **SOPREMA**

HPD URL: No HPD available
ACCESSORY TYPE: Adhesive
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: SOPRA-ISO can be installed by various methods. Installation with hot asphalt is one of these methods. Asphalt is heated in a kettle to a liquid form and installed on the roof deck with a mop. SOPRA-ISO is then laid down on the asphalt. Upon cooling, asphalt solidifies and holds the boards.

 Section 5: General Notes

Residuals could not be considered for all materials because information was not provided by all raw materials vendors.

MANUFACTURER INFORMATION

MANUFACTURER: Soprema	WEBSITE: www.soprema.ca
ADDRESS: 1688 Jean-Berchmans-Michaud	CONTACT NAME: Jean-François Côté
Drummondville, Québec J2C 8E9	TITLE: Director, Standards and Scientific Affairs
COUNTRY: Canada	PHONE: 819-478-8166 x.3290
	EMAIL: jfcote@soprema.ca

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 HPD and for compliance with the HPD standard noted.