CLASSIFICATION: 07 22 16
PRODUCT DESCRIPTION: SOPRA-ISO PLUS is a polyisocyanurate thermal insulation board used in roofing assemblies, composed of a closed-cell, rigid foam core faced on both surfaces with a coated glass fiber mat facer.

Section 1: Summary

Nested Method / Material Threshold

CONTENT INVENTORY

Inventory Reporting Format
- (•) Nested Materials Method
- ( ) Basic Method

Threshold Disclosed Per
- (•) Material
- ( ) Product

Threshold level
- ( ) 100 ppm
- (•) 1,000 ppm
- ( ) Per GHS SDS
- ( ) Per OSHA MSDS
- ( ) Other

Residuals/Impurities
Residuals/Impurities Considered in 1 of 2 Materials

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

All Substances Above the Threshold Indicated Are:

Characterized ( ) Yes Ex/SC (•) Yes ( ) No
% weight and role provided for all substances.

Screened ( ) Yes Ex/SC (•) Yes ( ) No
All substances screened using Priority Hazard Lists with results disclosed.

Identified ( ) Yes Ex/SC (•) Yes ( ) No
All substances disclosed by Name (Specific or Generic) and 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.

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

POLYISOCYANURATE FOAM [POLYMERIC MDI (PMDI) LT-UNK | RES | MUL | CAN POLYETHER POLYOL LT-UNK *DIETHYLENE GLYCOL (DIETHYLENE GLYCOL)* LT-P1 | END PENTANE LT-P1 | AQU | PHY | MAM | MUL POTASSIUM ACETATE LT-UNK 2-ETHYLHEXANOIC ACID, POTASSIUM SALT LT-UNK BIS(2-DIMETHYLAMINOETHYL)(METHYL)AMINE LT-P1 | MAM | SKI | MUL POLYSILOXANE NoGS TRIS(1-CHLORO-2-PROPYL)PHOSPHATE (TCPP, TMCP) BM-U | END | PBT | MUL WATER BM-4 *METHYLENE BISPHENYL DIISOCYANATE (PURE MDI) (METHYLENE BISPHENYL DIISOCYANATE (PURE MDI))* LT-UNK | RES | MUL | SKI | EYE | CAN *DIPHENYLMETHANE-2,4'- DIISOCYANATE (2,4'-MDI) (DIPHENYLMETHANE-2,4'- DIISOCYANATE (2,4'-MDI))* LT-UNK | MUL | SKI | EYE | RES | CAN *DIPHENYLMETHANE-2,2'-DIISOCYANATE (2,2'-MDI) (DIPHENYLMETHANE-2,2'-DIISOCYANATE (2,2'-MDI))* LT-UNK | MUL | SKI | EYE | RES | CAN *ETHYLENE GLYCOL (ETHYLENE GLYCOL)* BM-1 | DEL | END] COATED GLASS FIBER MAT FACER [CALCIUM CARBONATE BM-3 STYRENE BUTADIENE RUBBER (SBR) LT-UNK SOLID GLASS AND GLASS / MINERAL FIBER (SEE VARIANTS) LT-UNK | CAN CARBON BLACK LT-1 | CAN]

Number of Greenscreen BM-4/BM3 contents ... 2

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

SOPRA-ISO PLUS is available in various thicknesses, up to 5 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 or impurities could not be considered because information was not provided to the manufacturer by the 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 V1.1 (Section 01350/CHPS) - Zero VOC emissions
Other: CAN/ULC-S107 (Drummondville)
Other: CSA A123.21 (Drummondville)
Other: FM 4470 (Drummondville)

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?
- ( ) Yes
- (•) No

PREPARER: Self-Prepared
VERIFIER:
VERIFICATION #:

SCREENING DATE: 2019-02-28
PUBLISHED DATE: 2019-03-28
EXPIRY DATE: 2022-02-28

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 2.1, available on the HPDC website at:www.hpd-collaborative.org/hpd-2-1-standard

POLYISOCYANURATE FOAM

%: 47.9000 - 83.8000

MATERIAL THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

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 PLUS varies with thickness of the product as follows: 1-inch SOPRA-ISO PLUS: 47.9% foam; 2-inch SOPRA-ISO PLUS: 63.9% foam; 4-inch SOPRA-ISO PLUS: 78.9% foam; 5-inch SOPRA-ISO PLUS: 83.8% 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 SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **55.0000 - 65.0000** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Isocyanate base for polymer backbone**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (G) - generally accepted
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
RESPIRATORY	US EPA - PPT Chemical Action Plans	Inhalation sensitizer causing asthma and lung damage
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: Polymeric MDI reacts completely during production of the foam.

POLYETHER POLYOL

ID: 9082-00-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **25.0000 - 30.0000** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Polyol base for polymer backbone**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	No hazards found	

SUBSTANCE NOTES: Polyester polyol reacts completely during foam production.

DIETHYLENE GLYCOL (DIETHYLENE GLYCOL)

ID: 111-46-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **Impurity/Residual** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES: This substance is an impurity found in polyether polyol and potassium-based catalyst.

PENTANE

ID: 109-66-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **3.0000 - 10.0000** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Blowing agent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CHRON AQUATIC	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H225 - Highly flammable liquid and vapour
MAMMALIAN	EU - GHS (H-Statements)	H304 - May be fatal if swallowed and enters airways
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters

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

POTASSIUM ACETATE

ID: 127-08-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **0.1000 - 1.0000** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Catalyst**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	No hazards found	

SUBSTANCE NOTES: Catalyst for polymerization.

2-ETHYLHEXANOIC ACID, POTASSIUM SALT

ID: 3164-85-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **0.1000 - 2.0000** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Catalyst**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	No hazards found	

SUBSTANCE NOTES: Catalyst for polymerization.

BIS(2-DIMETHYLAMINOETHYL)(METHYL)AMINE

ID: 3030-47-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **0.1000 - 1.0000** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Catalyst**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MAMMALIAN	EU - GHS (H-Statements)	H311 - Toxic in contact with skin
SKIN IRRITATION	EU - GHS (H-Statements)	H314 - Causes severe skin burns and eye damage
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters

SUBSTANCE NOTES: Catalyst for polymerization.

POLYSILOXANE

ID: 9011-19-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **0.1000 - 1.0000** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Surfactant**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	No hazards found	

SUBSTANCE NOTES: Foam control agent.

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

ID: 13674-84-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **0.1000 - 5.0000** GS: **BM-U** RC: **None** NANO: **No** ROLE: **Fire retardant**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
PBT	EHP - San Antonio Statement on BFRs & CFRs	Flame retardant substance class of concern for PB&T & long range transport
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - ongoing chemical (risk) assessment

SUBSTANCE NOTES: TCPP is used as flame retardant.

WATER

ID: 7732-18-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **0.1000 - 1.0000** GS: **BM-4** RC: **None** NANO: **No** ROLE: **Co-blowing agent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	No hazards found	

SUBSTANCE NOTES: Plain water

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

ID: 101-68-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

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

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (G) - generally accepted
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
RESPIRATORY	EU - GHS (H-Statements)	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
RESPIRATORY	US EPA - PPT Chemical Action Plans	Inhalation sensitizer causing asthma and lung damage
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

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 SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

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

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
RESPIRATORY	EU - GHS (H-Statements)	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
RESPIRATORY	US EPA - PPT Chemical Action Plans	Inhalation sensitizer causing asthma and lung damage

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 SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

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

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
RESPIRATORY	EU - GHS (H-Statements)	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
RESPIRATORY	US EPA - PPT Chemical Action Plans	Inhalation sensitizer causing asthma and lung damage

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

ETHYLENE GLYCOL (ETHYLENE GLYCOL)

ID: **107-21-1**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **Impurity/Residual** GS: **BM-1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
DEVELOPMENTAL	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES: This substance is an impurity in potassium acetate.

COATED GLASS FIBER MAT FACER

%: 16.2000 - 52.1000

MATERIAL THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: Residuals were not considered because information could not be disclosed to the manufacturer by the materials suppliers.

OTHER MATERIAL NOTES: Percentage of coated glass facer in SOPRA-ISO PLUS varies with thickness of the product as follows: 1-inch SOPRA-ISO PLUS: 52.1% facer; 2-inch SOPRA-ISO PLUS: 36.1% facer; 4-inch SOPRA-ISO PLUS: 21.1% facer; 5-inch SOPRA-ISO PLUS: 16.2% facer.

CALCIUM CARBONATE

ID: 471-34-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **75.0000 - 85.0000** GS: **BM-3** RC: **None** NANO: **No** ROLE: **Filler material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	No hazards found	

SUBSTANCE NOTES: N/A

STYRENE BUTADIENE RUBBER (SBR)

ID: 9003-55-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **6.0000 - 12.0000** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Binder for glass mat**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	No hazards found	

SUBSTANCE NOTES: Portion of polymeric binder for glass mat. Styrene butadiene and styrene acrylic combination.

SOLID GLASS AND GLASS / MINERAL FIBER (SEE VARIANTS)

ID: 65997-17-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **5.0000 - 7.0000** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Provide dimensional stability**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer

SUBSTANCE NOTES: Fibrous glass mat.

CARBON BLACK

ID: 1333-86-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-02-28**

%: **0.0000 - 0.0150** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: Additive to binder for glass mat.

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 V1.1 (Section 01350/CHPS) - Zero VOC emissions**

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: N/A
CERTIFICATE URL:
ISSUE DATE: 2019-03-28
EXPIRY DATE:
CERTIFIER OR LAB: N/A

CERTIFICATION AND COMPLIANCE NOTES: N/A - This product is an exterior product therefore is not to be tested for VOC emissions.

OTHER — **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:	EXPIRY DATE:	CERTIFIER OR LAB:
2012-01-01		Underwriters Laboratories of Canada

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.

OTHER — **CSA A123.21 (Drummondville)**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: Drummondville, Québec, Canada
CERTIFICATE URL: http://www.exp.com/exp.do?action=getFile&fileId=2872&lang=en
ISSUE DATE: 2010-12-05
EXPIRY DATE: 2018-04-30
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 PUB-DRU168540 .

OTHER — **FM 4470 (Drummondville)**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: Drummondville, Québec, Canada
CERTIFICATE URL:
ISSUE DATE: 2012-01-01
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.

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 — HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:
SOPRA-ISO PLUS 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 PLUS panels are then laid in adhesive.

FASTENER — HPD URL: **No HPD Available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:
SOPRA-ISO PLUS can be installed by various methods. Installation with fasteners (screws and plates) is one of these methods. SOPRA-ISO PLUS boards are laid down and metal fasteners are screwed through the boards at spacing determined by the required wind uplift resistance.

HOT ASPHALT — HPD URL: **No HPD Available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:
SOPRA-ISO PLUS 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 PLUS 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 as information was not provided to the manufacturer by raw materials suppliers.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Soprema**
ADDRESS: **1688 Jean-Berchmans-Michaud**

Drummondville Quebec J2C 8E9, Canada
WEBSITE: **www.soprema.ca**

CONTACT NAME: **Jean-François Côté**
TITLE: **Director, Standards and Scientific Affairs**
PHONE: **819-478-8166 x.3290**
EMAIL: **jfcote@soprema.ca**

KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

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

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)
BM-3 Benchmark 3 (use but still opportunity for improvement)
BM-2 Benchmark 2 (use but search for safer substitutes)
BM-1 Benchmark 1 (avoid - chemical of high concern)
BM-U Benchmark Unspecified (insuficient data to benchmark)
LT-P1 List Translator Possible Benchmark 1
LT-1 List Translator Likely Benchmark 1
LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
NoGS Unknown (no data on List Translator Lists)

Recycled Types

PreC Preconsumer (Post-Industrial)
PostC Postconsumer
Both Both Preconsumer and Postconsumer
Unk Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms
Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- *a method for the assessment of exposure or risk associated with product handling or use,*
- *a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.