

CLASSIFICATION: 07 52 16

PRODUCT DESCRIPTION: SOPRALENE 180 SP 3.5 is a SBS-modified bitumen vapor barrier used in low-slope roofing assemblies. It has a mineral top surface and is reinforced with a non-woven polyester mat.

Section 1: Summary

Nested Method / Material Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
- Basic Method

Threshold level

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

Residuals/Impurities

Residuals/Impurities  
Considered in 3 of 5 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.

Threshold Disclosed Per

- Material
- Product

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**

**SBS-MODIFIED BITUMEN MIXTURE [ ASPHALT (ASPHALT) LT-1 | CAN LIMESTONE; CALCIUM CARBONATE (LIMESTONE; CALCIUM CARBONATE) LT-UNK STYRENE BUTADIENE RUBBER (SBR) (STYRENE BUTADIENE RUBBER (SBR)) LT-UNK HYDROGEN SULFIDE (HYDROGEN SULFIDE) LT-P1 | AQU | PHY | MAM | END | MUL NICKEL (NICKEL) LT-1 | RES | CAN | SKI | MAM | MUL VANADIUM (VANADIUM) LT-1 | MUL | CAN | GEN LEAD (LEAD) LT-1 | DEL | CAN | PBT | REP | MUL | END | GEN POLYCYCLIC AROMATIC HYDROCARBONS (POLYCYCLIC AROMATIC HYDROCARBONS) LT-1 | PBT | CAN NAPHTHALENE (NAPHTHALENE) BM-1 | CAN | PBT | AQU | MUL | END ] SATURANT FOR POLYESTER REINFORCEMENT [ ASPHALT, OXIDIZED (ASPHALT, OXIDIZED) LT-1 | CAN HYDROGEN SULFIDE (HYDROGEN SULFIDE) LT-P1 | AQU | PHY | MAM | END | MUL NICKEL (NICKEL) LT-1 | RES | CAN | SKI | MAM | MUL VANADIUM (VANADIUM) LT-1 | MUL | CAN | GEN LEAD (LEAD) LT-1 | DEL | CAN | PBT | REP | MUL | END | GEN POLYCYCLIC AROMATIC HYDROCARBONS (POLYCYCLIC AROMATIC HYDROCARBONS) LT-1 | PBT | CAN NAPHTHALENE (NAPHTHALENE) BM-1 | CAN | PBT | AQU | MUL | END ] MINERAL AGGREGATE SURFACING [ FELDSPAR (FELDSPAR) LT-UNK | RES ALUMINUM SILICATE, NATURAL (ALUMINUM SILICATE, NATURAL - FELDSPATH) LT-UNK QUARTZ (QUARTZ) LT-1 | CAN MICA (MICA) LT-UNK FERRIC OXIDE (FERRIC OXIDE) BM-2 | CAN SODIUM OXIDE (SODIUM OXIDE) LT-UNK DIPOTASSIUM OXIDE (DIPOTASSIUM OXIDE) LT-UNK CALCIUM OXIDE (CALCIUM OXIDE) LT-P1 MAGNESIUM OXIDE (MAGNESIUM OXIDE) LT-UNK | CAN ] POLYESTER REINFORCING MAT [ POLYESTER (POLYESTER) NoGS ] POLYPROPYLENE FILM [ POLYPROPYLENE LT-UNK ]**

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

Contents highest concern GreenScreen  
Benchmark or List translator Score ... BM-1  
Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

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. The precise composition of the bitumen mixture was not disclosed to protect proprietary information; ranges were given.

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

Management: ISO 9001:2015 Quality management systems

Management: ISO 14001:2015 Environmental management systems

Management: OHSAS-18001 Occupational Health and Safety Assessment Standard

**CONSISTENCY WITH OTHER PROGRAMS**

Pre-checked for LEED v4 Material Ingredients, Option 1

Third Party Verified?

- Yes
- No

PREPARER: **Self-Prepared**

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2019-03-01

PUBLISHED DATE: 2019-03-01

EXPIRY DATE: 2022-03-01



## 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](http://www.hpd-collaborative.org/hpd-2-1-standard)

### SBS-MODIFIED BITUMEN MIXTURE

#: 77.0000

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: The modified bitumen is composed of different substances blended to a homogeneous mixture.

### ASPHALT (ASPHALT)

ID: 8052-42-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-03-01

#: 45.0000 - 55.0000

GS: LT-1

RC: None

NANO: No

ROLE: Main waterproofing compound

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	IARC	Group 2B - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
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: Exact percentage not disclosed to protect proprietary information.

### LIMESTONE; CALCIUM CARBONATE (LIMESTONE; CALCIUM CARBONATE)

ID: 1317-65-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-03-01

#: 35.0000 - 50.0000

GS: LT-UNK

RC: None

NANO: No

ROLE: Mineral stabilizer and hardener

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	No hazards found	

SUBSTANCE NOTES: Exact percentage not disclosed to protect proprietary information.

**STYRENE BUTADIENE RUBBER (SBR) (STYRENE BUTADIENE RUBBER (SBR))**

ID: 9003-55-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

#: **5.0000 - 10.0000**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Polymeric modifier for adhesion and heat resistance**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

No hazards found

SUBSTANCE NOTES: **Exact percentage not disclosed to protect proprietary information.**

**HYDROGEN SULFIDE (HYDROGEN SULFIDE)**

ID: 7783-06-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

#: **Impurity/Residual**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Impurity/Residual**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

ACUTE AQUATIC

EU - GHS (H-Statements)

H400 - Very toxic to aquatic life

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H220 - Extremely flammable gas

MAMMALIAN

EU - GHS (H-Statements)

H330 - Fatal if inhaled

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

MAMMALIAN

US EPA - EPCRA Extremely Hazardous Substances

Extremely Hazardous Substances

SUBSTANCE NOTES: **Hydrogen sulfide may be present as an impurity in asphalt.**

**NICKEL (NICKEL)**

ID: 7440-02-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

#: **Impurity/Residual**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	IARC	Group 2B - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: Nickel may be present as an impurity in asphalt.

## VANADIUM (VANADIUM)

ID: 7440-62-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

#: **Impurity/Residual** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
GENE MUTATION	MAK	Germ Cell Mutagen 2

SUBSTANCE NOTES: Vanadium may be present as an impurity in asphalt.

## LEAD (LEAD)

ID: 7439-92-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

#: **Impurity/Residual** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
DEVELOPMENTAL	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
CANCER	US EPA - IRIS Carcinogens	(1986) Group B2 - Probable human Carcinogen
CANCER	IARC	Group 2A - Agent is probably Carcinogenic to humans
CANCER	IARC	Group 2B - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
PBT	US EPA - Priority PBTs (NWMP)	Priority PBT
PBT	WA DoE - PBT	PBT
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Female
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory PBTs	PBT
REPRODUCTIVE	EU - SVHC Authorisation List	Toxic to reproduction - Candidate list
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
DEVELOPMENTAL	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity
REPRODUCTIVE	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Reproductive Toxicity
REPRODUCTIVE	EU - GHS (H-Statements)	H360FD - May damage fertility. May damage the unborn child
DEVELOPMENTAL	EU - GHS (H-Statements)	H362 - May cause harm to breast-fed children
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 1 - Substances known to impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
CANCER	Korea - GHS	Carcinogenicity - Category 1 [H350 - May cause cancer]
REPRODUCTIVE	Korea - GHS	Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]
REPRODUCTIVE	New Zealand - GHS	6.8A - Known or presumed human reproductive or developmental toxicants
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1A
GENE MUTATION	MAK	Germ Cell Mutagen 3a
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1A

SUBSTANCE NOTES: Lead may be present as an impurity in asphalt.

## POLYCYCLIC AROMATIC HYDROCARBONS (POLYCYCLIC AROMATIC HYDROCARBONS)

ID: 130498-29-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-03-01**

#: **Impurity/Residual** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
PBT	WA DoE - PBT	PBT
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory PBTs	PBT
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man

SUBSTANCE NOTES: Polycyclic aromatic hydrocarbons may be present as impurity in asphalt.

## NAPHTHALENE (NAPHTHALENE)

ID: 91-20-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-03-01**

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

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	US EPA - IRIS Carcinogens	(1986) Group C - Possible human Carcinogen
CANCER	IARC	Group 2B - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
PBT	US EPA - Priority PBTs (NWMP)	Priority PBT
PBT	WA DoE - PBT	PBT
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory PBTs	PBT
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man

SUBSTANCE NOTES: Naphthalene may be present as an impurity in asphalt.

## SATURANT FOR POLYESTER REINFORCEMENT

#: 9.0000

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: Saturant used to fill all voids within reinforcing mat.

### ASPHALT, OXIDIZED (ASPHALT, OXIDIZED)

ID: 64742-93-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-03-01

#: 100.0000

GS: LT-1

RC: None

NANO: No

ROLE: Saturation of reinforcing mat



HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	IARC	Group 2A - Agent is probably Carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
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: Oxidized asphalt is one option for reinforcement saturation.

### HYDROGEN SULFIDE (HYDROGEN SULFIDE)

ID: 7783-06-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

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

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H220 - Extremely flammable gas
MAMMALIAN	EU - GHS (H-Statements)	H330 - Fatal if inhaled
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
MAMMALIAN	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances

SUBSTANCE NOTES: Hydrogen sulfide may be present as an impurity in asphalt.

### NICKEL (NICKEL)

ID: 7440-02-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

#: **Impurity/Residual** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	IARC	Group 2B - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: Nickel may be present as an impurity in asphalt.

## VANADIUM (VANADIUM)

ID: 7440-62-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

#: **Impurity/Residual** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
GENE MUTATION	MAK	Germ Cell Mutagen 2

SUBSTANCE NOTES: Vanadium may be present as an impurity in asphalt.

## LEAD (LEAD)

ID: 7439-92-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
DEVELOPMENTAL	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
CANCER	US EPA - IRIS Carcinogens	(1986) Group B2 - Probable human Carcinogen
CANCER	IARC	Group 2A - Agent is probably Carcinogenic to humans
CANCER	IARC	Group 2B - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
PBT	US EPA - Priority PBTs (NWMP)	Priority PBT
PBT	WA DoE - PBT	PBT
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Female
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory PBTs	PBT
REPRODUCTIVE	EU - SVHC Authorisation List	Toxic to reproduction - Candidate list
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
DEVELOPMENTAL	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity
REPRODUCTIVE	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Reproductive Toxicity
REPRODUCTIVE	EU - GHS (H-Statements)	H360FD - May damage fertility. May damage the unborn child
DEVELOPMENTAL	EU - GHS (H-Statements)	H362 - May cause harm to breast-fed children
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 1 - Substances known to impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
CANCER	Korea - GHS	Carcinogenicity - Category 1 [H350 - May cause cancer]
REPRODUCTIVE	Korea - GHS	Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]
REPRODUCTIVE	New Zealand - GHS	6.8A - Known or presumed human reproductive or developmental toxicants
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1A
GENE MUTATION	MAK	Germ Cell Mutagen 3a

REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1A
DEVELOPMENTAL	Australia - GHS	H360Df - May damage the unborn child. Suspected of damaging fertility

SUBSTANCE NOTES: Lead may be present as an impurity in asphalt.

**POLYCYCLIC AROMATIC HYDROCARBONS (POLYCYCLIC AROMATIC HYDROCARBONS)**

ID: 130498-29-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-03-01**

#: **Impurity/Residual**      GS: **LT-1**      RC: **None**      NANO: **No**      ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
PBT	WA DoE - PBT	PBT
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory PBTs	PBT
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man

SUBSTANCE NOTES: Polycyclic aromatic hydrocarbons may be present as an impurity in asphalt.

**NAPHTHALENE (NAPHTHALENE)**

ID: 91-20-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-03-01**

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

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	US EPA - IRIS Carcinogens	(1986) Group C - Possible human Carcinogen
CANCER	IARC	Group 2B - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
PBT	US EPA - Priority PBTs (NWMP)	Priority PBT
PBT	WA DoE - PBT	PBT
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory PBTs	PBT
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man

SUBSTANCE NOTES: Naphthalene may be present as an impurity in asphalt.

## MINERAL AGGREGATE SURFACING

%: 7.0000

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: Top surfacing material used to improve adhesion of subsequent materials.

### FELDSPAR (FELDSPAR)

ID: 68476-25-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-03-01

%: 28.0000 - 32.0000

GS: LT-UNK

RC: None

NANO: No

ROLE: Sand surfacing component

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only

SUBSTANCE NOTES: Mineral aggregate surfacing is composed of natural sand, which is composed of different minerals. Feldspar is one of these minerals.

### ALUMINUM SILICATE, NATURAL (ALUMINUM SILICATE, NATURAL - FELDSPATH)

ID: 12141-46-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

#: **27.0000 - 31.0000** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Sand surfacing component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
	No hazards found	

SUBSTANCE NOTES: Mineral aggregate surfacing is composed of natural sand, which is composed of different minerals. Feldspath is one of these minerals.

### QUARTZ (QUARTZ)

ID: 14808-60-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

#: **26.0000 - 35.0000** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Sand surfacing component**

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 1 - Agent is carcinogenic to humans - inhaled from occupational sources
CANCER	US NIH - Report on Carcinogens	Known to be Human Carcinogen (respirable size - occupational setting)
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	New Zealand - GHS	6.7A - Known or presumed human carcinogens
CANCER	Australia - GHS	H350 - May cause cancer
CANCER	Japan - GHS	Carcinogenicity - Category 1A

SUBSTANCE NOTES: Mineral aggregate surfacing is composed of natural sand, which is composed of different minerals. Quartz is one of these minerals.

### MICA (MICA)

ID: 12001-26-2

%: **2.0000 - 5.0000**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Sand surfacing component**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

No hazards found

SUBSTANCE NOTES: Mineral aggregate surfacing is composed of natural sand, which is composed of different minerals. Mica is one of these minerals.

**FERRIC OXIDE (FERRIC OXIDE)**ID: **1309-37-1**%: **Impurity/Residual**GS: **BM-2**RC: **None**NANO: **No**ROLE: **Impurity/Residual**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

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

SUBSTANCE NOTES: Mineral aggregate surfacing is composed of natural sand, which is composed of different minerals. Iron oxide may be present as an impurity in natural sand.

**SODIUM OXIDE (SODIUM OXIDE)**ID: **1313-59-3**%: **Impurity/Residual**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Impurity/Residual**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

No hazards found

SUBSTANCE NOTES: Mineral aggregate surfacing is composed of natural sand, which is composed of different minerals. Sodium oxide may be present as an impurity in natural sand.

**DIPOTASSIUM OXIDE (DIPOTASSIUM OXIDE)**ID: **12136-45-7**%: **Impurity/Residual**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Impurity/Residual**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

No hazards found

SUBSTANCE NOTES: Mineral aggregate surfacing is composed of natural sand, which is composed of different minerals. Dipotassium oxide may be present as an impurity in natural sand.

**CALCIUM OXIDE (CALCIUM OXIDE)**

ID: 1305-78-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-03-01**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
No hazards found		

SUBSTANCE NOTES: Mineral aggregate surfacing is composed of natural sand, which is composed of different minerals. Calcium oxide may be present as an impurity in natural sand.

**MAGNESIUM OXIDE (MAGNESIUM OXIDE)**

ID: 1309-48-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-03-01**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES: Mineral aggregate surfacing is composed of natural sand, which is composed of different minerals. Magnesium oxide may be present as an impurity in natural sand.

**POLYESTER REINFORCING MAT**

%: 4.0000

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: Polyester reinforcing mat is responsible for the product's mechanical properties.

**POLYESTER (POLYESTER)**

ID: 113669-95-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-03-01**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
No hazards found		

SUBSTANCE NOTES: Polyester fibres in a non-woven configuration.

**POLYPROPYLENE FILM**

%: 0.1000



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: Polypropylene film is used as the bottom surfacing material.

**POLYPROPYLENE**

ID: 9003-07-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-03-01**

#: **100.0000**

GS: **LT-UNK**

RC:

**None**

NANO:

**No**

ROLE: **Surface material - burns when membrane is installed**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

No hazards found

SUBSTANCE NOTES: **BOPP film.**

## 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**

ISSUE DATE: **2019-**

EXPIRY DATE:

CERTIFIER OR LAB: **N/A**

APPLICABLE FACILITIES: **N/A**

**03-01**

CERTIFICATE URL:

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

### MANAGEMENT

### ISO 9001:2015 Quality management systems

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2018-**

EXPIRY DATE: **2021-**

CERTIFIER OR LAB: **SGS ICS**

APPLICABLE FACILITIES: **Facilities covered by this**

**05-28**

**05-07**

**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/2015/05/SOPREMA-certificat-iso-9001-v2-ENG.pdf>

CERTIFICATION AND COMPLIANCE NOTES: **Certificate number FR18/81842815. Although all the plants cited above are covered by the certification, the only plants that manufacture the product covered by this HPD are the plants in Drummondville, Chilliwack, Wadsworth and Gulfport.**

### MANAGEMENT

### ISO 14001:2015 Environmental management systems

CERTIFYING PARTY: <b>Third Party</b>	ISSUE DATE: <b>2018-</b>	EXPIRY DATE: <b>2021-</b>	CERTIFIER OR LAB: <b>SGS ICS</b>
APPLICABLE FACILITIES: <b>Facilities covered by this certification: St Julien du Sault, France; Strasbourg, France; Val de Reuil, France; Sorgues, France; La Chapelle Saint Luc, France; Saint Rambert, France; Golbey, France; Drummondville, Québec, Canada; Chilliwack, British Columbia, Canada; Wadsworth, Ohio, USA; Richmond, Québec, Canada; Beauport, Québec, Canada; Grobbendonk, Belgium; Andenne, Belgium; Ijlst, Netherlands; Chignolo d'Isola Bergamo, Italy; Frosinone, Italy; Salgareda, Italy; San Vito al Tagliamento, Italy; Verolanuova, Italy; Blonie, Poland; Spreitenbach, Switzerland; Cham, Switzerland.</b>	<b>05-28</b>	<b>05-07</b>	
CERTIFICATE URL: <a href="https://www.soprema.ca/wp-content/uploads/2015/05/SOPREMA-certificat-iso-14001-v2-ENG.pdf">https://www.soprema.ca/wp-content/uploads/2015/05/SOPREMA-certificat-iso-14001-v2-ENG.pdf</a>			

CERTIFICATION AND COMPLIANCE NOTES: Certificate number FR18/81842816. Although all the plants cited above are covered by the certification, the only plants that manufacture the product covered by this HPD are the plants in Drummondville, Chilliwack, Wadsworth and Gulfport.

**MANAGEMENT** **OHSAS-18001 Occupational Health and Safety Assessment Standard**

CERTIFYING PARTY: <b>Third Party</b>	ISSUE DATE: <b>2018-</b>	EXPIRY DATE: <b>2021-</b>	CERTIFIER OR LAB: <b>SGS ICS</b>
APPLICABLE FACILITIES: <b>Facilities covered by this certification: St Julien du Sault, France; Strasbourg, France; La Chapelle Saint Luc, France; Saint Rambert, France; Drummondville, Québec, Canada; Chilliwack, British Columbia, Canada; Beauport, Québec, Canada; Wadsworth, Ohio, USA; Gulfport, Mississippi, USA; Andenne, Belgium; Chignolo d'Isola Bergamo, Italy; Frosinone, Italy; San Vito al Tagliamento, Italy; Verolanuova, Italy; Salgareda, Italy.</b>	<b>05-28</b>	<b>05-07</b>	
CERTIFICATE URL: <a href="https://www.soprema.ca/wp-content/uploads/2015/05/SOPREMA-certificat-ohsas-18001-v2-ENG.pdf">https://www.soprema.ca/wp-content/uploads/2015/05/SOPREMA-certificat-ohsas-18001-v2-ENG.pdf</a>			

CERTIFICATION AND COMPLIANCE NOTES: Certificate number FR18/81842817. Although all the plants cited above are covered by the certification, the only plants that manufacture the product covered by this HPD are the plants in Drummondville, Chilliwack, Wadsworth and Gulfport.

**+ 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.*

**BITUMINOUS-BASED ROOFING PRIMER**

HPD URL: **No HPD Available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

The use of a primer may be required or recommended depending on the type of substrate on which is installed SOPRALENE 180 SP 3.5. Acceptable primers include ELASTOCOL 500 (340 g/L VOC content) and ELASTOCOL 350 (31 g/L VOC content).

## Section 5: General Notes

Residuals could not be considered for all materials as information was not provided to the manufacturer by raw materials suppliers.



## 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

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

### GreenScreen (GS)

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

### 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.*