# SOPRALENE FLAM 180 GR
by Soprema

**Health Product Declaration v2.3**

created via: HPDC Online Builder

**HPD UNIQUE IDENTIFIER:** 339325734912
**CLASSIFICATION:** 07 52 16.13 Torch-Applied Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing
**PRODUCT TYPE:** Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing (Membrane Roofing)
**PRODUCT DESCRIPTION:** SOPRALENE FLAM 180 GR is a SBS modified-bitumen cap sheet roof membrane. It is reinforced with a non-woven polyester mat and its surface is covered with mineral granules.

## Section 1: Summary

**Nested Method / Material Threshold**

### CONTENT INVENTORY

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

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

**Threshold Level**
- ( ) 100 ppm
- (•) 1,000 ppm
- ( ) Per GHS SDS
- ( ) Other

**Residuals/Impurities Evaluation**
Completed in 5 of 5 Materials

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

*For all contents above the threshold, the manufacturer has:*

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

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

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

### CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

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

**SBS-MODIFIED BITUMEN MIXTURE [ ASPHALT (ASPHALT)** LT-1 | CAN | MAM | GEN **LIMESTONE; CALCIUM CARBONATE (LIMESTONE; CALCIUM CARBONATE)** BM-3dg **STYRENE BUTADIENE RUBBER (SBR) (STYRENE BUTADIENE RUBBER (SBR))** LT-UNK
*NAPHTHALENE (NAPHTHALENE)* LT-1 | END | PBT | CAN | MUL | AQU | EYE | MAM *POLYCYCLIC AROMATIC HYDROCARBONS (POLYCYCLIC AROMATIC HYDROCARBONS)* LT-1 | PBT | CAN *LEAD (LEAD)* BM-1 | END | PBT | MUL | CAN | DEV | REP | GEN | AQU | MAM *VANADIUM (VANADIUM)* LT-1 | CAN | MUL | GEN *NICKEL (NICKEL)* LT-1 | CAN | MUL | RES | MAM | SKI | AQU *HYDROGEN SULFIDE (HYDROGEN SULFIDE)* LT-P1 | END | MUL | MAM | AQU | PHY | EYE **] STANDARD ROOFING GRANULES [ FELDSPAR** LT-UNK | MAM **QUARTZ** BM-1 | CAN | MAM | GEN **CERAMIC MATERIALS AND WARES, CHEMICALS** LT-UNK | MUL **TITANIUM DIOXIDE** BM-1 | CAN | END | MAM
*DISTILLATES (PETROLEUM), HYDROTREATED (MILD) HEAVY NAPHTHENIC (9CI)* LT-1 | CAN | PBT | MUL | SKI | DEV **] SATURANT FOR POLYESTER REINFORCEMENT [ ASPHALT, OXIDIZED (ASPHALT, OXIDIZED)** LT-1 | CAN | EYE *NICKEL (NICKEL)* LT-1 | CAN | MUL | RES | MAM | SKI | AQU *NAPHTHALENE (NAPHTHALENE)* LT-1 | END | PBT | CAN | MUL | AQU | EYE | MAM *POLYCYCLIC AROMATIC HYDROCARBONS (POLYCYCLIC AROMATIC HYDROCARBONS)* LT-1 | PBT | CAN *LEAD (LEAD)* BM-1 | END | PBT | MUL | CAN | DEV | REP | GEN | AQU | MAM *VANADIUM (VANADIUM)* LT-1 | CAN | MUL | GEN *HYDROGEN SULFIDE (HYDROGEN SULFIDE)* LT-P1 | END | MUL | MAM | AQU | PHY | EYE **] POLYESTER MAT [ POLYESTER FIBERS** NoGS **] POLYPROPYLENE FILM [ POLYPROPYLENE** LT-UNK **]**

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

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

Nanomaterial ... No

**INVENTORY AND SCREENING NOTES:**

Antimicrobial Pesticides Reporting: This product does not contain substance(s) that are intentionally added above the [Product - 1,000 ppm] threshold to act as antimicrobials.

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 as information was not provided to the manufacturer by raw materials suppliers. The precise composition of the SBS-modified bitumen mixture was not disclosed to protect proprietary information; ranges were given.

### VOLATILE ORGANIC COMPOUND (VOC) CONTENT

### CERTIFICATIONS AND COMPLIANCE *See Section 3 for additional*

VOC Content data is not applicable for this product category.

***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
Roofing Assembly Resistance to Wind Uplift: FM 4470

**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: 2025-01-17
PUBLISHED DATE: 2025-01-17
EXPIRY DATE: 2028-01-17

## Section 2: Content in Descending Order of Quantity

*This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:*

- *Basic Inventory method with Product-level threshold.*
- *Nested Material Inventory method with Product-level threshold*
- *Nested Material Inventory method with individual Material-level thresholds*

*Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.3, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-3-standard*

### SBS-MODIFIED BITUMEN MIXTURE %: 48.4000

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

#### ASPHALT (ASPHALT) ID: 8052-42-4

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:29**

%: **45.0000 - 55.0000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Water resistance**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| CAN | US CDC - Occupational Carcinogens | Occupational Carcinogen |
| CAN | MAK | Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification |
| CAN | IARC | Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources |
| MAM | GHS - Japan | H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3] |
| 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] |
| GEN | GHS - Japan | H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2] |

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

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

#### LIMESTONE; CALCIUM CARBONATE (LIMESTONE; CALCIUM CARBONATE) ID: 1317-65-3

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:30**

%: **35.0000 - 50.0000** GreenScreen: **BM-3dg** RC: **None** NANO: **No** SUBSTANCE ROLE: **Filler**

| 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: Exact percentage not disclosed to protect proprietary information.

## STYRENE BUTADIENE RUBBER (SBR) (STYRENE BUTADIENE RUBBER (SBR))

ID: **9003-55-8**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:31**

%: **5.0000 - 10.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

| 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: Exact percentage not disclosed to protect proprietary information.

## NAPHTHALENE (NAPHTHALENE)

ID: **91-20-3**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:32**

%: **0.0001** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| END | TEDX - Potential Endocrine Disruptors | Potential Endocrine Disruptor |
| PBT | OSPAR - Priority PBTs & EDs & equivalent concern | PBT - Chemical for Priority Action |
| END | ChemSec - SIN List | Endocrine Disruption |
| CAN | MAK | Carcinogen Group 1 - Substances that cause cancer in man |
| MUL | ChemSec - SIN List | CMR - Carcinogen, Mutagen &/or Reproductive Toxicant |
| CAN | CA EPA - Prop 65 | Carcinogen |
| CAN | IARC | Group 2b - Possibly carcinogenic to humans |
| CAN | MAK | Carcinogen Group 2 - Considered to be carcinogenic for man |
| CAN | US NIH - Report on Carcinogens | Reasonably Anticipated to be Human Carcinogen |

| | | |
|---|---|---|
| PBT | US EPA - Priority PBTs (NWMP) | Priority PBT |
| PBT | WA DoE - PBT | PBT |
| PBT | US EPA - Toxics Release Inventory PBTs | PBT |
| MUL | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters |
| CAN | US EPA - IRIS Carcinogens | (1986) Group C - Possible human Carcinogen |
| CAN | EU - GHS (H-Statements) Annex 6 Table 3-1 | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |
| AQU | EU - GHS (H-Statements) Annex 6 Table 3-1 | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | EU - GHS (H-Statements) Annex 6 Table 3-1 | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| EYE | GHS - New Zealand | Eye irritation category 2 |
| CAN | GHS - New Zealand | Carcinogenicity category 2 |
| 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 - 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 |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - acute category 1 |
| AQU | GHS - Japan | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | GHS - Japan | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU | GHS - Australia | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - chronic category 1 |
| AQU | GHS - Japan | H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2] |
| CAN | GHS - Malaysia | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |
| AQU | GHS - Malaysia | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU | GHS - Malaysia | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |

| | | |
|---|---|---|
| CAN | GHS - Australia | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| RESTRICTED LIST | Green Science Policy Institute (GSPI) | GSPI - Six Classes Precautionary List<br><br>Antimicrobials |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Children's Products |
| RESTRICTED LIST | International Living Future Institute (ILFI) | Living Building Challenge 4.0 - Red List of Materials & Chemicals - Effective April 1, 2024<br><br>Red List substances to avoid in Living Building Challenge V4.0 projects |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Cosmetics & Personal Care Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>All Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Cosmetics and Personal Care Products |

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

**POLYCYCLIC AROMATIC HYDROCARBONS (POLYCYCLIC AROMATIC HYDROCARBONS)** ID: **130498-29-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:31**

%: **0.0001** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

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

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| RESTRICTED LIST | International Living Future Institute (ILFI) | Living Building Challenge 4.0 - Red List of Materials & Chemicals - Effective April 1, 2024<br><br>Red List substances to avoid in Living Building Challenge V4.0 projects |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>All Products |

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

**LEAD (LEAD)** ID: **7439-92-1**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:31**

%: **0.0001** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| END | TEDX - Potential Endocrine Disruptors | Potential Endocrine Disruptor |
| PBT | OSPAR - Priority PBTs & EDs & equivalent concern | PBT - Chemical for Priority Action |
| PBT | OR DEQ - Priority Persistent Pollutants | Priority Persistent Pollutant - Tier 1 |
| MUL | ChemSec - SIN List | CMR - Carcinogen, Mutagen &/or Reproductive Toxicant |
| CAN | CA EPA - Prop 65 | Carcinogen |
| CAN | IARC | Group 2b - Possibly carcinogenic to humans |
| CAN | MAK | Carcinogen Group 2 - Considered to be carcinogenic for man |
| CAN | US NIH - Report on Carcinogens | Reasonably Anticipated to be Human Carcinogen |
| DEV | G&L - Neurotoxic Chemicals | Developmental Neurotoxicant |
| CAN | US EPA - IRIS Carcinogens | (1986) Group B2 - Probable human Carcinogen |
| CAN | IARC | Group 2a - Agent is probably Carcinogenic to humans |
| DEV | CA EPA - Prop 65 | Developmental toxicity |
| PBT | US EPA - Priority PBTs (NWMP) | Priority PBT |
| PBT | US EPA - Toxics Release Inventory PBTs | PBT |
| DEV | US NIH - Reproductive & Developmental Monographs | Clear Evidence of Adverse Effects - Developmental Toxicity |
| REP | US NIH - Reproductive & Developmental Monographs | Clear Evidence of Adverse Effects - Reproductive Toxicity |
| REP | EU - Annex VI CMRs | Reproductive Toxicity - Category 1A |
| GEN | MAK | Germ Cell Mutagen 3a |
| REP | CA EPA - Prop 65 | Reproductive Toxicity - Female |

| | | |
|---|---|---|
| REP | CA EPA - Prop 65 | Reproductive Toxicity - Male |
| CAN | GHS - Korea | H350 - May cause cancer [Carcinogenicity - Category 1] |
| REP | GHS - Korea | H360 - May damage fertility or the unborn child [Reproductive toxicity - Category 1] |
| REP | GHS - Japan | H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1A] |
| DEV | GHS - Australia | H360Df - May damage the unborn child. Suspected of damaging fertility [Reproductive toxicity - Category 1A or 1B] |
| REP | EU - GHS (H-Statements) Annex 6 Table 3-1 | H360FD - May damage fertility. May damage the unborn child [Reproductive toxicity - Category 1A or 1B] |
| AQU | EU - GHS (H-Statements) Annex 6 Table 3-1 | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | EU - GHS (H-Statements) Annex 6 Table 3-1 | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| DEV | EU - GHS (H-Statements) Annex 6 Table 3-1 | H362 - May cause harm to breast-fed children [Reproductive toxicity, effects on or via lactation] |
| REP | GHS - New Zealand | Reproductive toxicity category 1 |
| CAN | GHS - New Zealand | Carcinogenicity category 2 |
| 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] |
| GEN | GHS - Australia | H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2] |
| GEN | GHS - Japan | H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2] |
| MAM | GHS - New Zealand | Specific target organ toxicity - repeated exposure category 1 |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - acute category 1 |
| AQU | GHS - Australia | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - chronic category 1 |
| AQU | GHS - Korea | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | GHS - Korea | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| GEN | GHS - New Zealand | Germ cell mutagenicity category 2 |
| MAM | GHS - New Zealand | Acute oral toxicity category 3 |
| REP | GHS - New Zealand | Effects on or via lactation |
| CAN | GHS - Australia | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |

| | | |
|---|---|---|
| REP | EU - SVHC List | Toxic to reproduction - Candidate list |
| REP | EU - SVHC List | Toxic to reproduction - Prioritized for listing |
| REP | EU - REACH Annex XVII CMRs | Reproductive toxicants: Category 1A |

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| RESTRICTED LIST | Perkins+Will (P+W) | P&W - Precautionary List<br><br>Precautionary list of substances recommended for avoidance |
| RESTRICTED LIST | Green Science Policy Institute (GSPI) | GSPI - Six Classes Precautionary List<br><br>Certain Metals |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Core Restrictions |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Biological and Environmentally Released Materials |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Children's Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Formulated Consumer Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Footwear, Apparel & Jewelry Products |
| RESTRICTED LIST | International Living Future Institute (ILFI) | Living Building Challenge 4.0 - Red List of Materials & Chemicals - Effective April 1, 2024<br><br>Red List substances to avoid in Living Building Challenge V4.0 projects |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>All Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Electronics (RoHS) |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Children's Toy Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Cosmetics and Personal Care Products |

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

## VANADIUM (VANADIUM)

ID: **7440-62-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:30**

%: **0.0001** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| CAN | MAK | Carcinogen Group 2 - Considered to be carcinogenic for man |
| MUL | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters |
| GEN | MAK | Germ Cell Mutagen 2 |

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

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

## NICKEL (NICKEL)

ID: **7440-02-0**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:33**

%: **0.0001** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| CAN | US CDC - Occupational Carcinogens | Occupational Carcinogen |
| CAN | MAK | Carcinogen Group 1 - Substances that cause cancer in man |
| MUL | German FEA - Substances Hazardous to Waters | Class 3 - Severe Hazard to Waters |
| CAN | IARC | Group 1 - Agent is Carcinogenic to humans |
| CAN | CA EPA - Prop 65 | Carcinogen |
| CAN | US NIH - Report on Carcinogens | Known to be a human Carcinogen |
| CAN | IARC | Group 2b - Possibly carcinogenic to humans |
| CAN | US NIH - Report on Carcinogens | Reasonably Anticipated to be Human Carcinogen |
| RES | MAK | Sensitizing Substance Sah - Danger of airway & skin sensitization |
| CAN | EU - GHS (H-Statements) Annex 6 Table 3-1 | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |
| MAM | EU - GHS (H-Statements) Annex 6 Table 3-1 | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1] |
| CAN | GHS - New Zealand | Carcinogenicity category 2 |
| 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 - 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 - New Zealand | Skin sensitisation category 1 |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - acute category 1 |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - chronic category 1 |
| CAN | GHS - Australia | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| RESTRICTED LIST | Green Science Policy Institute (GSPI) | GSPI - Six Classes Precautionary List<br><br>Certain Metals |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Biological and Environmentally Released Materials |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Children's Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Footwear, Apparel & Jewelry Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>All Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Children's Toy Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Cosmetics and Personal Care Products |

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

**HYDROGEN SULFIDE (HYDROGEN SULFIDE)** ID: **7783-06-4**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:32**

%: **0.0001** 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 |
| MUL | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters |
| MAM | US EPA - EPCRA Extremely Hazardous Substances | Extremely Hazardous Substances |
| AQU | EU - GHS (H-Statements) Annex 6 Table 3-1 | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| MAM | EU - GHS (H-Statements) Annex 6 Table 3-1 | H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2] |
| PHY | EU - GHS (H-Statements) Annex 6 Table 3-1 | H220 - Extremely flammable gas [Flammable gases - Category 1] |

| | | |
|---|---|---|
| EYE | GHS - New Zealand | Eye irritation category 2 |
| MAM | GHS - New Zealand | Specific target organ toxicity - repeated exposure category 1 |
| MAM | GHS - Japan | H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1] |
| MAM | GHS - New Zealand | Acute inhalation toxicity category 2 |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - acute category 1 |
| AQU | GHS - Japan | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | GHS - Japan | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - chronic category 1 |
| AQU | GHS - Korea | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| EYE | GHS - Korea | H319 - Causes serious eye irritation [Serious eye damage/irritation - Category 2] |
| MAM | Québec CSST - WHMIS 1988 | Class D1A - Very toxic material causing immediate and serious toxic effects |
| MAM | GHS - Korea | H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 2] |
| PHY | GHS - Korea | H220 - Extremely flammable gas [Flammable gases - Category 1] |
| PHY | Québec CSST - WHMIS 1988 | Class B1 - Flammable gases |
| MAM | GHS - Japan | H330 - Fatal if inhaled [Acute toxicity (inhalation: gas) - Category 2] |
| PHY | GHS - Japan | H220 - Extremely flammable gas [Flammable gases - Category 1] |
| MAM | GHS - Australia | H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2] |
| EYE | GHS - Japan | H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2A] |
| AQU | GHS - Malaysia | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | GHS - Australia | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| PHY | GHS - New Zealand | Flammable gas category 1A |
| PHY | GHS - Malaysia | H220 - Extremely flammable gas [Flammable gases - Category 1] |
| MAM | GHS - Malaysia | H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2] |
| PHY | GHS - Australia | H220 - Extremely flammable gas [Flammable gases - Category 1] |

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

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

## STANDARD ROOFING GRANULES

**%: 28.7000**

MATERIAL THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: No

MATERIAL TYPE: Geologically Derived Material

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

OTHER MATERIAL NOTES: Mineral granules are used as top surfacing of SOPRALENE FLAM 250 GR and are responsible for UV protection of the modified bitumen compound.

### FELDSPAR

ID: **68476-25-5**

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

HAZARD SCREENING DATE: **2025-01-17 6:54:33**

%: **65.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Insulator**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| MAM | GHS - New Zealand | Specific target organ toxicity - repeated exposure category 1 |

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

SUBSTANCE NOTES: Granules are naturally occuring stones based of various minerals. They are crushed and sized appropriately.

### QUARTZ

ID: **14808-60-7**

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

HAZARD SCREENING DATE: **2025-01-17 6:54:33**

%: **25.0000** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Insulator**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| CAN | US CDC - Occupational Carcinogens | Occupational Carcinogen |
| CAN | CA EPA - Prop 65 | Carcinogen - specific to chemical form or exposure route |
| CAN | US NIH - Report on Carcinogens | Known to be Human Carcinogen (respirable size - occupational setting) |
| CAN | MAK | Carcinogen Group 1 - Substances that cause cancer in man |
| CAN | IARC | Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources |
| CAN | IARC | Group 1 - Agent is Carcinogenic to humans |
| CAN | US NIH - Report on Carcinogens | Known to be a human Carcinogen |
| CAN | GHS - Japan | H350 - May cause cancer [Carcinogenicity - Category 1A] |
| CAN | GHS - Australia | H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B] |
| CAN | GHS - New Zealand | Carcinogenicity category 1 |
| MAM | GHS - Japan | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1] |
| GEN | GHS - Japan | H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2] |
| MAM | GHS - Australia | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1] |
| MAM | GHS - New Zealand | Specific target organ toxicity - repeated exposure category 1 |

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

SUBSTANCE NOTES: Granules are naturally occuring stones based of various minerals. They are crushed and sized appropriately.

**CERAMIC MATERIALS AND WARES, CHEMICALS** ID: **66402-68-4**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:34**

%: **2.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Insulator**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| MUL | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters |

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| EXEMPT | European Union / European Commission (EU EC) | EU - REACH Exemptions<br><br>Exempted from REACH Annex V listing due to intrinsic safety |

SUBSTANCE NOTES: Granules are naturally occuring stones based of various minerals. They are crushed and sized appropriately.

**TITANIUM DIOXIDE** ID: **13463-67-7**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:35**

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

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| CAN | US CDC - Occupational Carcinogens | Occupational Carcinogen |
| CAN | CA EPA - Prop 65 | Carcinogen - specific to chemical form or exposure route |
| CAN | IARC | Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources |
| CAN | MAK | Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value |
| END | TEDX - Potential Endocrine Disruptors | Potential Endocrine Disruptor |
| CAN | MAK | Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels |
| CAN | IARC | Group 2b - Possibly carcinogenic to humans |
| CAN | EU - GHS (H-Statements) Annex 6 Table 3-1 | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |
| 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] |

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Children's Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Formulated Consumer Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Cosmetics & Personal Care Products |
| POSITIVE LIST | US Environmental Protection Agency (US EPA) | US EPA - DfE Safer Chemicals Ingredients list (SCIL)<br><br>Colorants - Green Circle (Verified Low Concern) |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Cosmetics and Personal Care Products |

SUBSTANCE NOTES: Granules are naturally occuring stones which are coated with pigments to provide a distinct color.

**DISTILLATES (PETROLEUM), HYDROTREATED (MILD) HEAVY NAPHTHENIC (9CI)** ID: **64742-52-5**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:36**

%: **0.0000 - 0.1000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| CAN | EU - Annex VI CMRs | Carcinogen Category 1B - Presumed Carcinogen based on animal evidence |
| PBT | EC - CEPA DSL | Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans |
| MUL | ChemSec - SIN List | CMR - Carcinogen, Mutagen &/or Reproductive Toxicant |
| MUL | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters |
| CAN | GHS - Australia | H350 - May cause cancer [Carcinogenicity - Category 1A or 1B] |
| CAN | GHS - Japan | H350 - May cause cancer [Carcinogenicity - Category 1A] |
| CAN | EU - GHS (H-Statements) Annex 6 Table 3-1 | H350 - May cause cancer [Carcinogenicity - Category 1A or 1B] |
| SKI | GHS - Australia | H315 - Causes skin irritation [Skin corrosion/irritation - Category 2] |
| SKI | GHS - Japan | H315 - Causes skin irritation [Skin corrosion / irritation - Category 2] |
| DEV | GHS - Australia | H361d - Suspected of damaging the unborn child [Reproductive toxicity - Category 2] |
| CAN | EU - REACH Annex XVII CMRs | Carcinogens: Category 1B |

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Children's Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Formulated Consumer Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>All Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Cosmetics and Personal Care Products |

SUBSTANCE NOTES: Oil is used as a lubricant in the process.

**SATURANT FOR POLYESTER REINFORCEMENT** **%: 17.3000**

MATERIAL THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Other: Asphalt derived from crude oil

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 DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:36**

%: **100.0000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Water resistance**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| CAN | MAK | Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification |
| EYE | GHS - Korea | H318 - Causes serious eye damage [Serious eye damage/irritation - Category 1] |
| CAN | IARC | Group 2A - Agent is probably carcinogenic to humans - inhaled from occupational sources |

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

SUBSTANCE NOTES: Oxidized asphalt is one option for reinforcement saturation.

## NICKEL (NICKEL)

ID: **7440-02-0**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:35**

%: **0.0001** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| CAN | US CDC - Occupational Carcinogens | Occupational Carcinogen |
| CAN | MAK | Carcinogen Group 1 - Substances that cause cancer in man |
| MUL | German FEA - Substances Hazardous to Waters | Class 3 - Severe Hazard to Waters |
| CAN | IARC | Group 1 - Agent is Carcinogenic to humans |
| CAN | CA EPA - Prop 65 | Carcinogen |
| CAN | US NIH - Report on Carcinogens | Known to be a human Carcinogen |
| CAN | IARC | Group 2b - Possibly carcinogenic to humans |
| CAN | US NIH - Report on Carcinogens | Reasonably Anticipated to be Human Carcinogen |
| RES | MAK | Sensitizing Substance Sah - Danger of airway & skin sensitization |
| CAN | EU - GHS (H-Statements) Annex 6 Table 3-1 | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |
| MAM | EU - GHS (H-Statements) Annex 6 Table 3-1 | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1] |
| CAN | GHS - New Zealand | Carcinogenicity category 2 |
| 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 - 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 - New Zealand | Skin sensitisation category 1 |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - acute category 1 |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - chronic category 1 |
| CAN | GHS - Australia | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| RESTRICTED LIST | Green Science Policy Institute (GSPI) | GSPI - Six Classes Precautionary List<br><br>Certain Metals |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Biological and Environmentally Released Materials |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Children's Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Footwear, Apparel & Jewelry Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>All Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Children's Toy Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Cosmetics and Personal Care Products |

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

**NAPHTHALENE (NAPHTHALENE)** ID: **91-20-3**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:37**

%: **0.0001** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| END | TEDX - Potential Endocrine Disruptors | Potential Endocrine Disruptor |
| PBT | OSPAR - Priority PBTs & EDs & equivalent concern | PBT - Chemical for Priority Action |
| END | ChemSec - SIN List | Endocrine Disruption |
| CAN | MAK | Carcinogen Group 1 - Substances that cause cancer in man |
| MUL | ChemSec - SIN List | CMR - Carcinogen, Mutagen &/or Reproductive Toxicant |
| CAN | CA EPA - Prop 65 | Carcinogen |
| CAN | IARC | Group 2b - Possibly carcinogenic to humans |
| CAN | MAK | Carcinogen Group 2 - Considered to be carcinogenic for man |

| | | |
|---|---|---|
| CAN | US NIH - Report on Carcinogens | Reasonably Anticipated to be Human Carcinogen |
| PBT | US EPA - Priority PBTs (NWMP) | Priority PBT |
| PBT | WA DoE - PBT | PBT |
| PBT | US EPA - Toxics Release Inventory PBTs | PBT |
| MUL | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters |
| CAN | US EPA - IRIS Carcinogens | (1986) Group C - Possible human Carcinogen |
| CAN | EU - GHS (H-Statements) Annex 6 Table 3-1 | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |
| AQU | EU - GHS (H-Statements) Annex 6 Table 3-1 | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | EU - GHS (H-Statements) Annex 6 Table 3-1 | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| EYE | GHS - New Zealand | Eye irritation category 2 |
| CAN | GHS - New Zealand | Carcinogenicity category 2 |
| 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 - 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 |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - acute category 1 |
| AQU | GHS - Japan | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | GHS - Japan | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU | GHS - Australia | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - chronic category 1 |
| AQU | GHS - Japan | H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2] |
| CAN | GHS - Malaysia | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |
| AQU | GHS - Malaysia | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |

| | | |
|---|---|---|
| AQU | GHS - Malaysia | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| CAN | GHS - Australia | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| RESTRICTED LIST | Green Science Policy Institute (GSPI) | GSPI - Six Classes Precautionary List<br><br>Antimicrobials |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Children's Products |
| RESTRICTED LIST | International Living Future Institute (ILFI) | Living Building Challenge 4.0 - Red List of Materials & Chemicals - Effective April 1, 2024<br><br>Red List substances to avoid in Living Building Challenge V4.0 projects |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Cosmetics & Personal Care Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>All Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Cosmetics and Personal Care Products |

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

**POLYCYCLIC AROMATIC HYDROCARBONS (POLYCYCLIC AROMATIC HYDROCARBONS)** ID: **130498-29-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:36**

%: **0.0001** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

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

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| RESTRICTED LIST | International Living Future Institute (ILFI) | Living Building Challenge 4.0 - Red List of Materials & Chemicals - Effective April 1, 2024<br><br>Red List substances to avoid in Living Building Challenge V4.0 projects |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>All Products |

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

**LEAD (LEAD)** ID: **7439-92-1**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:35**

%: **0.0001** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| END | TEDX - Potential Endocrine Disruptors | Potential Endocrine Disruptor |
| PBT | OSPAR - Priority PBTs & EDs & equivalent concern | PBT - Chemical for Priority Action |
| PBT | OR DEQ - Priority Persistent Pollutants | Priority Persistent Pollutant - Tier 1 |
| MUL | ChemSec - SIN List | CMR - Carcinogen, Mutagen &/or Reproductive Toxicant |
| CAN | CA EPA - Prop 65 | Carcinogen |
| CAN | IARC | Group 2b - Possibly carcinogenic to humans |
| CAN | MAK | Carcinogen Group 2 - Considered to be carcinogenic for man |
| CAN | US NIH - Report on Carcinogens | Reasonably Anticipated to be Human Carcinogen |
| DEV | G&L - Neurotoxic Chemicals | Developmental Neurotoxicant |
| CAN | US EPA - IRIS Carcinogens | (1986) Group B2 - Probable human Carcinogen |
| CAN | IARC | Group 2a - Agent is probably Carcinogenic to humans |
| DEV | CA EPA - Prop 65 | Developmental toxicity |
| PBT | US EPA - Priority PBTs (NWMP) | Priority PBT |
| PBT | US EPA - Toxics Release Inventory PBTs | PBT |
| DEV | US NIH - Reproductive & Developmental Monographs | Clear Evidence of Adverse Effects - Developmental Toxicity |
| REP | US NIH - Reproductive & Developmental Monographs | Clear Evidence of Adverse Effects - Reproductive Toxicity |
| REP | EU - Annex VI CMRs | Reproductive Toxicity - Category 1A |
| GEN | MAK | Germ Cell Mutagen 3a |

| | | |
|---|---|---|
| REP | CA EPA - Prop 65 | Reproductive Toxicity - Female |
| REP | CA EPA - Prop 65 | Reproductive Toxicity - Male |
| CAN | GHS - Korea | H350 - May cause cancer [Carcinogenicity - Category 1] |
| REP | GHS - Korea | H360 - May damage fertility or the unborn child [Reproductive toxicity - Category 1] |
| REP | GHS - Japan | H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1A] |
| DEV | GHS - Australia | H360Df - May damage the unborn child. Suspected of damaging fertility [Reproductive toxicity - Category 1A or 1B] |
| REP | EU - GHS (H-Statements) Annex 6 Table 3-1 | H360FD - May damage fertility. May damage the unborn child [Reproductive toxicity - Category 1A or 1B] |
| AQU | EU - GHS (H-Statements) Annex 6 Table 3-1 | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | EU - GHS (H-Statements) Annex 6 Table 3-1 | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| DEV | EU - GHS (H-Statements) Annex 6 Table 3-1 | H362 - May cause harm to breast-fed children [Reproductive toxicity, effects on or via lactation] |
| REP | GHS - New Zealand | Reproductive toxicity category 1 |
| CAN | GHS - New Zealand | Carcinogenicity category 2 |
| 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] |
| GEN | GHS - Australia | H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2] |
| GEN | GHS - Japan | H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2] |
| MAM | GHS - New Zealand | Specific target organ toxicity - repeated exposure category 1 |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - acute category 1 |
| AQU | GHS - Australia | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - chronic category 1 |
| AQU | GHS - Korea | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | GHS - Korea | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| GEN | GHS - New Zealand | Germ cell mutagenicity category 2 |
| MAM | GHS - New Zealand | Acute oral toxicity category 3 |
| REP | GHS - New Zealand | Effects on or via lactation |

| | | |
|---|---|---|
| CAN | GHS - Australia | H351 - Suspected of causing cancer [Carcinogenicity - Category 2] |
| REP | EU - SVHC List | Toxic to reproduction - Candidate list |
| REP | EU - SVHC List | Toxic to reproduction - Prioritized for listing |
| REP | EU - REACH Annex XVII CMRs | Reproductive toxicants: Category 1A |

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE | NOTIFICATION |
|---|---|---|
| RESTRICTED LIST | Perkins+Will (P+W) | P&W - Precautionary List<br><br>Precautionary list of substances recommended for avoidance |
| RESTRICTED LIST | Green Science Policy Institute (GSPI) | GSPI - Six Classes Precautionary List<br><br>Certain Metals |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Core Restrictions |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Biological and Environmentally Released Materials |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Children's Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Formulated Consumer Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Footwear, Apparel & Jewelry Products |
| RESTRICTED LIST | International Living Future Institute (ILFI) | Living Building Challenge 4.0 - Red List of Materials & Chemicals - Effective April 1, 2024<br><br>Red List substances to avoid in Living Building Challenge V4.0 projects |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>All Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Electronics (RoHS) |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Children's Toy Products |
| RESTRICTED LIST | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024<br><br>Cosmetics and Personal Care Products |

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

## VANADIUM (VANADIUM)

ID: **7440-62-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:34**

%: **0.0001** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

| HAZARD TYPE | LIST NAME AND SOURCE | WARNINGS |
|---|---|---|
| CAN | MAK | Carcinogen Group 2 - Considered to be carcinogenic for man |
| MUL | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters |
| GEN | MAK | Germ Cell Mutagen 2 |

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

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

## HYDROGEN SULFIDE (HYDROGEN SULFIDE)

ID: **7783-06-4**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:34**

%: **0.0001** 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 |
| MUL | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters |
| MAM | US EPA - EPCRA Extremely Hazardous Substances | Extremely Hazardous Substances |
| AQU | EU - GHS (H-Statements) Annex 6 Table 3-1 | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| MAM | EU - GHS (H-Statements) Annex 6 Table 3-1 | H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2] |
| PHY | EU - GHS (H-Statements) Annex 6 Table 3-1 | H220 - Extremely flammable gas [Flammable gases - Category 1] |
| EYE | GHS - New Zealand | Eye irritation category 2 |
| MAM | GHS - New Zealand | Specific target organ toxicity - repeated exposure category 1 |
| MAM | GHS - Japan | H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1] |
| MAM | GHS - New Zealand | Acute inhalation toxicity category 2 |

| | | |
|---|---|---|
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - acute category 1 |
| AQU | GHS - Japan | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | GHS - Japan | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU | GHS - New Zealand | Hazardous to the aquatic environment - chronic category 1 |
| AQU | GHS - Korea | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| EYE | GHS - Korea | H319 - Causes serious eye irritation [Serious eye damage/irritation - Category 2] |
| MAM | Québec CSST - WHMIS 1988 | Class D1A - Very toxic material causing immediate and serious toxic effects |
| MAM | GHS - Korea | H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 2] |
| PHY | GHS - Korea | H220 - Extremely flammable gas [Flammable gases - Category 1] |
| PHY | Québec CSST - WHMIS 1988 | Class B1 - Flammable gases |
| MAM | GHS - Japan | H330 - Fatal if inhaled [Acute toxicity (inhalation: gas) - Category 2] |
| PHY | GHS - Japan | H220 - Extremely flammable gas [Flammable gases - Category 1] |
| MAM | GHS - Australia | H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2] |
| EYE | GHS - Japan | H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2A] |
| AQU | GHS - Malaysia | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| AQU | GHS - Australia | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1] |
| PHY | GHS - New Zealand | Flammable gas category 1A |
| PHY | GHS - Malaysia | H220 - Extremely flammable gas [Flammable gases - Category 1] |
| MAM | GHS - Malaysia | H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2] |
| PHY | GHS - Australia | H220 - Extremely flammable gas [Flammable gases - Category 1] |

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

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

**POLYESTER MAT** **%: 5.4000**

MATERIAL THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: No MATERIAL TYPE: Polymeric Material

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 FIBERS** ID: **80595-68-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:35**

%: **100.0000** GreenScreen: **NoGS** 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: Polyester fibres in a non-woven configuration.

**POLYPROPYLENE FILM** **%: 0.1000**

MATERIAL THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: No MATERIAL TYPE: Polymeric Material

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 DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-01-17 6:54:36**

%: **100.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Anti-adhesive 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 |
|---|---|---|
| None found | | No listings found on Additional Hazard Lists |

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
APPLICABLE FACILITIES: N/A
CERTIFICATE URL:

ISSUE DATE: 2019-02-28 00:00:00
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.

**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 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: Third Party
APPLICABLE FACILITIES: 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.
CERTIFICATE URL: https://www.soprema.ca/wp-content/uploads/2021/10/SOPREMA-ISO-14001-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 FR18/81842816. 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.

**ROOFING ASSEMBLY RESISTANCE TO WIND UPLIFT** — **FM 4470**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: Drummondville, Chilliwack, Wadsworth and Gulfport.
CERTIFICATE URL: https://www.roofnav.com

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. An example is assembly #364877-362220-0 found in ROOFNAV. These listings are maintained through periodic audits from FM in the SOPREMA plants.

**ROOFING ASSEMBLY RESISTANCE TO DYNAMIC WIND UPLIFT** **CSA A123.21**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: Drummondville, Chilliwack, Wadsworth and Gulfport.
CERTIFICATE URL: https://www.soprema.ca/wp-content/uploads/2018/02/SOPI-204337-12-Soprarock-DD-Plus-over-Soprarock-DD-Plus-cold-applied-PUB-DRS-349011-SIGN.pdf
ISSUE DATE: 2012-09-27 00:00:00
EXPIRY DATE:
CERTIFIER OR LAB: EXP services

CERTIFICATION AND COMPLIANCE NOTES: This product is present in a large number of roofing assemblies tested for resistance to wind uplift. An example is assembly SOPI-204337-12.

**MANAGEMENT** **ISO 45001:2018 Occupational health and safety management system**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: 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.
CERTIFICATE URL: https://www.soprema.ca/wp-content/uploads/2021/10/SOPREMA-ISO-45001-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 FR18/81842817. 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.*

**SBS-MODIFIED BITUMEN BASE SHEET**
MANUFACTURER (OR GENERIC): **SOPREMA**

HPD URL: http://hpdrepository.hpd-collaborative.org
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: SOPRALENE FLAM 180 GR can be installed over any suitable SBS base sheet such as SOPRALENE FLAM 180 and ELASTOPHENE 180 PS.

## 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**
COUNTRY: **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**

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

**KEY**

**Hazard Types**

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

**GreenScreen (GS)**

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

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

**Recycled Types**

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

**Other Terms:**

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

**Inventory Methods:**

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

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

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

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

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

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

*The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and*

*for compliance with the HPD standard noted.*