PermaQuik PQ6100
by Radmat Building Products Ltd

Health Product Declaration v2.3

created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 886793216
CLASSIFICATION: 07 50 00 Membrane Roofing
PRODUCT DESCRIPTION: PermaQuik PQ6100 is a one part, hot applied, seamless, self-healing Hot Melt Monolithic membrane roofing system membrane. Consisting of a blend of synthetic and natural rubbers in a specially selected compatible bitumen, PermaQuik PQ6100 combines excellent waterproofing performance with toughness, flexibility, and strong adhesion to a variety of substrates. PermaQuik PQ6100 can be installed with zero falls and is BBA Certified for 'lifetime of the building' in protected (inverted) roof application, including green roofs. Also includes CSI MasterFormats 07 10 00 Dampproofing and Waterproofing; 07 14 00 Fluid-Applied Waterproofing; 07 20 00 Thermal Protection; 07 52 00 Modified Bituminous Membrane Roofing.

Section 1: Summary

Basic Method / Product 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
- ○ Partially Completed
- ○ Not Completed

Explanation(s) provided :
- ◉ 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.

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

PERMAQUIK PQ6100 [ASPHALT / BITUMENS LT-1 | CAN | MAM | GEN LIMESTONE, CALCIUM CARBONATE BM-3dg STYRENE BUTADIENE RUBBER (SBR) LT-UNK NATURAL RUBBER LATEX LT-UNK | RES LUBRICATING OILS LT-1 | CAN | PBT | MUL CARBON BLACK BM-1* | CAN | EYE | MAM | PHY *HYDROGEN SULFIDE* LT-P1 | END | MUL | MAM | AQU | PHY | EYE *QUARTZ* BM-1* | CAN | MAM | GEN ZINC OXIDE BM-1 | END | MUL | AQU | MAM | REP SULFUR LT-UNK | SKI | MAM MEDIUM-CHAIN CHLORINATED PARAFFINS (MCCP) - ALKANES, C14-17, CHLORO LT-1 | CAN | END | PBT | MUL | REP | AQU | DEV | MAM]

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

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This Health Product Declaration (HPD) was completed in accordance with the HPD Standard version 2.3, and discloses hazards associated with all substances present at or above 1000 parts per million (ppm) in the finished product, along with the role and percent weight.

*Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. For this reason, this score is intentionally omitted from the "Contents highest concern" line above. See HPDC's Special Conditions policy for more information.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

Material (g/l): 0 g/l Regulatory (g/l): 0 g/l
Does the product contain exempt VOCs: No
Are colorants available that do not increase the VOC content of the base paint when tinted: N/A

CERTIFICATIONS AND COMPLIANCE *See Section 3 for additional listings.*

VOC emissions: CDPH Standard Method – Not tested
VOC content: EPA Method 24 - Volatile Matter Content (EPA 24)

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: 2023-12-07
PUBLISHED DATE: 2023-12-07
EXPIRY DATE: 2026-12-07

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

PERMAQUIK PQ6100

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals or impurities with the potential to be present at or above the Content Inventory Threshold indicated that return a GS score of BM-1, LT-1, LT-P1 or NoGS have been disclosed, based on information provided in supplier disclosures and as predicted by process chemistry (Pharos CML).

OTHER PRODUCT NOTES: Percent by weight of substances reported as ranges due to disclosure preference of suppliers.

ASPHALT / BITUMENS ID: 8052-42-4

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:26**

%: **51.9000 - 61.1000** 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: Supplier documentation states that no REACH registered substances are present that are assessed to be PBT or vPvB.

RESIDUES, PETROLEUM, VACUUM ID: 64741-56-6

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:26**

%: **51.9000 - 61.1000 ALT** GreenScreen: **LT-UNK** 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
CAN	IARC	Group 2B - Possibly 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: **Supplier documentation states that no REACH registered substances are present that are assessed to be PBT or vPvB.**

ALTERNATE: This substance is an alternate substance to Asphalt / Bitumens.

RESIDUES (PETROLEUM), THERMAL CRACKED VACUUM

ID: **92062-05-0**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:26**

%: **51.9000 - 61.1000 ALT** GreenScreen: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Water resistance**

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: **Supplier documentation states that no REACH registered substances are present that are assessed to be PBT or vPvB.**

ALTERNATE: This substance is an alternate substance to Asphalt / Bitumens.

LIMESTONE, CALCIUM CARBONATE

ID: **1317-65-3**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:27**

%: **26.0000 - 30.6000** 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: **GreenScreen Benchmark® assessment score of BM-3dg was provided by the HPD Builder Tool.**

STYRENE BUTADIENE RUBBER (SBR)

ID: 9003-55-8

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:27**

%: **4.0000 - 13.3000** GreenScreen: **LT-UNK** RC: **PostC** NANO: **No** SUBSTANCE ROLE: **Water resistance**

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: May include post-consumer recycled content from rubber crumb (recycled tyres).

NATURAL RUBBER LATEX

ID: 9006-04-6

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:28**

%: **3.4000 - 4.2000** GreenScreen: **LT-UNK** RC: **PostC** NANO: **No** SUBSTANCE ROLE: **Water resistance**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

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

SUBSTANCE NOTES: May include post-consumer recycled content from rubber crumb (recycled tyres).

LUBRICATING OILS

ID: 74869-22-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:28**

%: **1.9000 - 2.2000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Lubricant**

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 3 - Severe Hazard to Waters
CAN	GHS - Australia	H350 - May cause cancer [Carcinogenicity - Category 1A or 1B]
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H350 - May cause cancer [Carcinogenicity - Category 1A or 1B]
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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Formulated Consumer Products

SUBSTANCE NOTES: Supplier documentation for this ingredient states the following: "Highly refined reclaimed base oil. Highly refined mineral oil - DMSO extract <3% (w/w) according to IP346."

CARBON BLACK ID: **1333-86-4**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:28**

%: **1.5000 - 2.2000** 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	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification**
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route**
CAN	IARC	Group 2b - Possibly carcinogenic to humans**
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]**
PHY	GHS - Japan	H251 - Self-heating;; may catch fire [Self-heating substances and mixtures - Category 1]**

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

SUBSTANCE NOTES: May also represent residual/impurity of SBR (Origin: Rubber crumb from recycled tyres) as per Pharos CML (Additive - Non-reactive; Frequent; % Unknown).

**Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. See HPDC's Special Conditions policy for more information. Manufacturer's Safety Data Sheet (SDS), if applicable, may offer occupational health and safety information.

HYDROGEN SULFIDE

ID: **7783-06-4**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:28**

%: **0.0000 - 1.0000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe 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: **Potential residual of asphalt (8052-42-4) as per supplier documentation.**

QUARTZ

ID: **14808-60-7**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:29**

%: **0.0000 - 0.3000** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

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: Potential impurity of Limestone [1317-65-3], as per Pharos CML.

**Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. See HPDC's Special Conditions policy for more information. Manufacturer's Safety Data Sheet (SDS), if applicable, may offer occupational health and safety information.

ZINC OXIDE

ID: 1314-13-2

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:29**

%: **0.1000 - 0.2000** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Curing agent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
AQU	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]
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
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
REP	GHS - Japan	H361 - Suspected of damaging fertility or the unborn child [Toxic to reproduction - Category 2]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products

SUBSTANCE NOTES: GreenScreen Benchmark® assessment score of BM-1 was provided by the HPD Builder Tool.

SULFUR

ID: 7704-34-9

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:29**

%: **0.1000 - 0.2000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Curing agent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
SKI	GHS - New Zealand	Skin irritation category 2
SKI	GHS - Australia	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]

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

SUBSTANCE NOTES:

MEDIUM-CHAIN CHLORINATED PARAFFINS (MCCP) - ALKANES, C14-17, CHLORO

ID: 85535-85-9

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-12-07 12:28:29**

%: **0.0200 - 0.2000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Plasticizer**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTE) to the Environment (based on aquatic organisms)
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
PBT	ChemSec - SIN List	PBT / vPvB (Persistent, Bioaccumulative, & Toxic / very Persistent & very Bioaccumulative)
END	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 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]
DEV	GHS - Korea	H362 - May cause harm to breast-fed children [Reproductive toxicity, effects on or via lactation]
DEV	GHS - Australia	H362 - May cause harm to breast-fed children [Reproductive toxicity, effects on or via lactation]
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - 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 - 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]
PBT	EU - SVHC List	PBT - Candidate list
PBT	EU - SVHC List	vPvB - Candidate list
DEV	GHS - Japan	H362 - May cause harm to breast-fed children [Developmental Toxicity - May cause harm to breast-fed children]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Core Restrictions

SUBSTANCE NOTES:

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 – Not tested**

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: N/A
CERTIFICATE URL:

ISSUE DATE: 2020-01-01
EXPIRY DATE:

CERTIFIER OR LAB: N/A

CERTIFICATION AND COMPLIANCE NOTES: PermaQuik PQ6100 is applied to the exterior of the building envelope.

VOC CONTENT — **EPA Method 24 - Volatile Matter Content (EPA 24)**

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: All
CERTIFICATE URL:

ISSUE DATE: 2020-01-01
EXPIRY DATE:

CERTIFIER OR LAB: N/A

CERTIFICATION AND COMPLIANCE NOTES: VOC content calculated from formulation.

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.

ESHAPRIMER
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: EshaPrimer is a quick drying black bitumen priming solution designed to penetrate and seal a variety of porous surfaces including masonry, concrete, cementitious screed/renders, existing bituminous waterproofing and structural steelwork. EshaPrimer creates a base seal and improves the adhesion of bituminous waterproofing solutions.

PERMAQUIK PQ2017 REINFORCING FABRIC
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: PQ2017 Reinforcing Fabric is a 50 g/m² 100% spunbonded polyester fabric for use as a reinforcement to PermaQuik PQ6100 hot melt monolithic membrane. PQ2017 polyester reinforcement layer is lightly brushed into the first 3mm (minimum thickness) coat of PermaQuik PQ6100 membrane ensuring complete embedment.

PROTHERM QUANTUM® VACUUM INSULATION PANEL
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: ProTherm Quantum® Inverted Roof Insulation System has been developed to allow the thinnest possible construction. Consisting of Quantum® VIP panels (Vacuum Insulation Panels), Regupol RCM, XPS Infill, XPS layer and Grey Thermal Sheet, a ProTherm Quantum® VIP Inverted Roof System achieves a 'U' value of 0.15 W/mk2 using 80% less thickness than a traditional XPS insulation. Quantum® VIP panels consist of a microporous core which is evacuated of air and moisture prior to being encased and sealed in thin, gas-tight special hybrid aluminium. This combination provides outstanding aged design value thermal conductivity of 0.008 W/m.K, thereby achieving the thinnest possible insulation solution available today.

PROTHERM XPS LAYER
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: ProTherm XPS Layer is used to compliment the thermal performance of ProTherm Quantum VIP Panels, and as a packer board to achieve a required height in ProTherm Quantum 'Hybrid' systems. For use in the ProTherm Quantum VIP Insulation System installed over any BBA Certified Inverted roofing systems. ProTherm XPS Layer is a rigid, closed cell type Extruded polystyrene board with integral high density skin. ProTherm XPS Layer has a Zero Ozone Depletion Potential (ODP), a Global Warming Potential (GWP) of less than 5 and an A rating in accordance with the Green Guide to Specification.

PROTHERM G XENERGY SLP
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: ProTherm G XENERGY SLP Inverted Roof Insulation is a unique rigid, closed cell type Extruded polystyrene board with integral high density skin. ProTherm G inverted roof insulation utilizes infra-red blocking particles to scatter and reflect heat radiation. ProTherm G XENERGY SLP Inverted Roof Insulation has a Zero Ozone Depletion Potential (ODP), a Global Warming Potential (GWP) of less than 5 and a Green Guide to Specification A+ rating. For use with Inverted Roof Waterproofing such as PermaQuik PQ6100, EshaFlex, EshaUniversal and ParaFlex. Use with ProTherm XENERGY MinK Water Flow Reducing Layer prior to the installation of paving, ballast, a green roof or timber decking.

PROTHERM XENERGY™ MINK
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: ProTherm XENERGY™ MinK Water Flow Reducing Layer is a spun bonded polyethylene geotextile based upon Tyvek® by DuPont that is waterproof and vapour permeable. ProTherm XENERGYTM MinK Water Flow Reducing Layer replaces the usual separating layer laid between the insulation and ballast, prevented water from reaching the waterproofing layer and almost completely eliminating the rainwater cooling effect. When installed with ProTherm Quantum inverted roof insulation in an inverted roof ProTherm XENERGY MinK Water Flow Reducing Layer reduces the rainwater cooling, reducing the required insulation thickness by 2%. ProTherm XENERGYTM MinK Water Flow Reducing Layer is for use with inverted roof waterproofing such as PermaQuik PQ6100, EshaFlex, EshaUniversal and ParaFlex.

PROTHERM GREY THERMAL SHEET
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: ProTherm Grey Thermal Sheet is a spun bonded polyethylene geotextile based upon Tyvek® by DuPont that is waterproof and vapour permeable. ProTherm Grey Thermal Sheet replaces the usual separating layer laid between the insulation and ballast, prevented water from reaching the waterproofing layer and almost completely eliminating the rainwater cooling effect. When installed with ProTherm Quantum inverted roof insulation in an inverted roof ProTherm Grey Thermal Sheet reduces the rainwater cooling, reducing the required insulation thickness by 2%.

PERMAQUIK PQ2060 DETAILING MEMBRANE
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: PQ2060 is an elastomeric membrane (Neoprene Compound) for use as a reinforcment to PermaQuik PQ6100 hot melt monolothic membrane. PQ2060 is used as a detailing membrane at parapets, outlets and/or blockwork. PQ2060 elastomeric membrane is embedded into the first 3mm (minimum thickness) coat of PermaQuik PQ6100 membrane; overlaps should be at least 75 mm. Installation to be according to guidelines and specifications supplied by Radmat Building Products Ltd.

PERMAQUIK PQ2061 DETAILING MEMBRANE
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: PQ2061 is an elastomeric membrane (Neoprene Compound) for use as a reinforcment to PermaQuik PQ6100 hot melt monolothic membrane. PQ2061 is used as a detailing membrane at parapets, outlets and/or blockwork. PQ2061 elastomeric membrane is embedded into the first 3mm (minimum thickness) coat of PermaQuik PQ6100 membrane; membrane overlaps should be at least 75 mm. Installation to be according to guidelines and specifications supplied by Radmat Building Products Ltd.

PERMAQUIK PQ1800 PROTECTION SHEET
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: PQ1800 Protection Sheet has a bituminous glass fabric as lining and is suitable as a protection/access sheet over PermaQuik PQ6100 in protected inverted roof applications. Loose laid and bedded in PermaQuik PQ6100. Application in accordance with the Radmat specification.

PERMAQUIK STANDARD PROTECTION SHEET
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Standard Protection Sheet is a bituminised polyester mat. Standard Protection Sheet is used as secondary layer or a top surface over PermaQuik PQ6100. Standard Protection Sheet is laid into the upper surface of the PermaQuik PQ6100 whilst the PermaQuik PQ6100 is still hot. Standard Protection Sheet is cut and formed using sharp hand tools; do not expose the Sheet to hydrocarbon based solvent products. Installation to be according to guidelines and specifications supplied by Radmat Building Products Ltd.

PERMAQUIK TEXSA PROTECTION SHEET
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: FLL Certified Texsa Protection Sheet consists of a high performance polyester carrier coated both sides with an APP modified bitumen compound incorporating an anti-root treatment. Texsa Protection Sheet is used as secondary layer or a top surface over PermaQuik PQ6100. Texsa Protection Sheet is laid into the upper surface of the PermaQuik PQ6100 whilst the PermaQuik PQ6100 is still hot. Texsa Protection Sheet is cut and formed using sharp hand tools; do not expose the Sheet to hydrocarbon based solvent products. Installation to be according to guidelines and specifications supplied by Radmat Building Products Ltd.

PROTHERM G XENERGY ULTRA INVERTED ROOF INSULATION
MANUFACTURER (OR GENERIC): **Radmat Building Products Ltd**

HPD URL: No HPD available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: ProTherm G XENERGY Ultra Inverted Roof Insulation is a unique rigid, closed cell type extruded polystyrene board with integral high density skin. ProTherm G XENERGY Ultra Inverted Roof Insulation utilises infra-red blocking particles to scatter and reflect heat radiation. ProTherm G XENERGY Ultra Inverted Roof Insulation has a Zero Ozone Depletion Potential (ODP), and a Global Warming Potential (GWP) of less than 5. For use with Inverted Roof Waterproofing such as PermaQuik PQ6100, EshaFlex, EshaUniversal and ParaFlex. Use with ProTherm XENERGY MinK Water Flow Reducing Layer prior to the installation of paving, ballast, a green roof or timber decking.

Section 5: General Notes

Developed in Canada in the 1960s, PermaQuik is manufactured in the UK following extensive research and development with Shell UK in an ISO14001 certified production facility. Its unique blend of bitumen, natural rubbers and polymers create a membrane that has self-healing properties, can be installed to zero falls in accordance with BBA Information Bulletin No 4, and has a BBA Certified durability for ‘the design life of the roof in which it is incorporated’.

Installed to achieve a minimum thickness of 6mm, PermaQuik PQ6100 is finished with either a standard or root prevention wearing sheet prior to being electronically tested. In Inverted Roof applications, Radmat ProTherm Inverted Roof Insulation board and MinK water control layer are installed prior to the chosen surface finish. A range of finishes are possible, including paving, ballast, porcelain tiles and Radmat MedO living green roofs.

Section 6: References

MANUFACTURER INFORMATION

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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.