

CLASSIFICATION: 07 42 43

created via: HPDC Online Builder

PRODUCT DESCRIPTION: THIS HPD COVERS NOROC® PANELS BY NORBEC ARCHITECTURAL INC. NOROC® PANELS ARE FIRE-RATED AND INSULATED PANELS WITH A ROCK-WOOL CORE DESIGNED FOR BUILDING ENVELOPES. MORE SPECIFICALLY, THE HPD HAS BEEN PREPARED BASED ON AVERAGE COMPOSITIONS OF NOROC®-L (42½ IN.) USING A ROCK-WOOL CORE OF 4 INCHES AND A 26 GAUGE THICKNESS FOR STEEL SHEETS.

## Section 1: Summary

### CONTENT INVENTORY

Threshold per material	Residuals and impurities considered in 5 of 5 materials	Characterized.....	<input checked="" type="radio"/>	<input type="radio"/>
<input checked="" type="radio"/> 100 ppm		Are the Percent Weight and Role provided for all substances?	Yes	No
<input checked="" type="radio"/> 1,000 ppm	<input checked="" type="radio"/> see Section 2:	Screened.....	<input checked="" type="radio"/>	<input type="radio"/>
<input type="radio"/> Per GHS SDS	Material Notes	Are all substances screened using Priority Hazard Lists with results disclosed?	Yes	No
<input type="radio"/> Per OSHA MSDS	<input checked="" type="radio"/> see Section 5:	Identified.....	<input type="radio"/>	<input checked="" type="radio"/>
<input type="radio"/> Other	General Notes	Are all substances disclosed by Name (Specific or Generic) and Identifier?	Yes	No

Based on the selected Content Inventory Threshold:

### CONTENT IN DESCENDING ORDER OF QUANTITY

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

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

**FIRE-RATED INSULATING MATERIAL [ SOLID GLASS AND GLASS / MINERAL FIBER (SEE VARIANTS) LT-UNK | CAN PHENOL FORMALDEHYDE LT-P1 | RES FORMALDEHYDE LT-1 | MAM | SKI | CAN | RES | GEN | MUL | END ] PRE-PAINTED GALVANIZED STEEL SHEETS [ IRON LT-P1 | END ZINC LT-P1 | AQU | END | MUL | PHY TITANIUM DIOXIDE LT-1 | CAN | END TERLON NoGS ACRYLATES NoGS STRONTIUM CHROMATE LT-1 | MAM | CAN | AQU | DEV | REP | SKI | MUL | GEN CHROMIUM LT-P1 | RES | END COPPER LT-UNK MANGANESE LT-P1 | END | MUL | REP NICKEL LT-1 | MAM | CAN | SKI | AQU | RES | MUL ALUMINUM LT-P1 | RES | END | PHY CADMIUM LT-1 | MAM | CAN | AQU | REP | DEV | PBT | GEN | MUL | END | PHY LEAD LT-1 | MAM | AQU | DEV | REP | CAN | PBT | MUL | END | GEN ANTIMONY LT-1 | MAM | AQU | CAN POLYVINYLIDENE FLUORIDE (1,1-DIFLUOROETHENE HOMOPOLYMER) LT-UNK POLYESTER NoGS FORMALDEHYDE, MELAMINE POLYMER, METHYLATED LT-UNK ACRYLONITRILE -METHYL-METHACRYLATE - VINYLIDENE CHLORIDE COPOLYMER LT-P1 | END 2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE LT-P1 | END ] SEALANT #1 [ UNDISCLOSED LT-UNK UNDISCLOSED LT-UNK UNDISCLOSED BM-2 | MAM | CAN UNDISCLOSED LT-UNK UNDISCLOSED LT-P1 | CAN ] SEALANT #2 [ SILOXANES AND SILICONES, DI-ME, ME HYDROGEN LT-P1 LIMESTONE; CALCIUM CARBONATE LT-UNK POLYDIMETHYLSILOXANES LT-P1 | PBT 2-BUTANONE, O,O',O"- (METHYLSILYLIDYNE)TRIOXIME (8CI)(9CI) LT-UNK FUMED SILICA, CRYSTALLINE-FREE LT-UNK 1,2-ETHANEDIAMINE, N-(3-(TRIMETHOXYSILYL)PROPYL)-(9CI) LT-UNK BUTAN-2-ONE O,O',O"- (VINYLIDYNE)TRIOXIME BM-1 DIBUTYL TIN DILAUATE LT-1 | PBT | MUL | END | REP OCTAMETHYLCYCLOTETrasiloxane (D4) BM-1 | REP | END | PBT | MUL ] ADHESIVE #3 [ POLYURETHANE FOAMS LT-UNK XYLENES BM-1 | MAM | SKI | END | MUL | REP DIBUTYL TIN DILAUATE LT-1 | PBT | MUL | END | REP ETHYLBENZENE BM-2 | MAM | CAN | PHY | REP ]**

Number of Greenscreen BM-4/BM3 contents..... 0  
Contents highest concern GreenScreen Benchmark or List translator Score..... BM-1  
Nanomaterial..... No

### INVENTORY AND SCREENING NOTES:

This HPD has been prepared using the Material Content Inventory. Noroc® panels have been screened at 1000ppm. Two different sealants can be used for the fabrication and/or installation of Noroc® panels that is why they have been both declared under "sealant #1" and "sealant #2".

### VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

### CERTIFICATIONS AND COMPLIANCE

No certifications have been added to this HPD.

<input checked="" type="radio"/> Self-Published*	VERIFIER:	SCREENING DATE: June 22, 2017	EXPIRY DATE*: June 22, 2020
<input type="radio"/> Third Party Verified	VERIFICATION #:	RELEASE DATE: July 21, 2017	* or within 3 months of significant change in product contents
*See HPDC website for details			



## Section 2: Content in Descending Order of Quantity

This section lists materials in a product and the substances in each material based on the Inventory Threshold for each material. If residuals or impurities from the manufacturing or extraction processes are considered for a material, these are inventoried and characterized to the extent described in the Material and/or General Notes. Chemical substances are screened against the HPD Priority Hazard Lists for human and environmental health impacts. Screening is based on best available information; "Not Found" does not necessarily mean there is no potential hazard associated with the product or its contents. More information about Priority Hazard Lists and the GreenScreen can be found online: [www.hpd-collaborative.org](http://www.hpd-collaborative.org) and [www.greenscreenchemicals.org](http://www.greenscreenchemicals.org).

### **FIRE-RATED INSULATING MATERIAL** %: 59.8100 HPD URL:

Inventory Threshold: 1000 ppm Residuals Considered: Yes

Material Notes: Insulated and fire-rated rock wool panel.

#### **SOLID GLASS AND GLASS / MINERAL FIBER (SEE VARIANTS)**

ID: 65997-17-3

%: 97.0000 - 99.0000

GS: LT-UNK

RC: None

NANO: NO

ROLE: Main material

#### **HAZARDS:**

#### **AGENCY(IES) WITH WARNINGS:**

CANCER

EU - R-phrases

R40 - Limited Evidence of Carcinogenic Effects

CANCER

EU - GHS (H-Statements)

H351 - Suspected of causing cancer

SUBSTANCE NOTES: Mineral wool fibers.

#### **PHENOL FORMALDEHYDE**

ID: 9003-35-4

%: 0.0000 - 3.0000

GS: LT-P1

RC: None

NANO: NO

ROLE: Binding agent

#### **HAZARDS:**

#### **AGENCY(IES) WITH WARNINGS:**

RESPIRATORY

AOEC - Asthmagens

Asthmagens (Rs) - sensitizer-induced

SUBSTANCE NOTES: See Material Notes.

#### **FORMALDEHYDE**

ID: 50-00-0

%: Impurity/Residual

GS: LT-1

RC: None

NANO: NO

ROLE: Impurity/Residual

#### **HAZARDS:**

#### **AGENCY(IES) WITH WARNINGS:**

MAMMALIAN

EU - R-phrases

R23 - Toxic by Inhalation (gas, vapour, dust/mist)

MAMMALIAN

EU - R-phrases

R24 - Toxic in Contact with Skin

MAMMALIAN

EU - R-phrases

R25 - Toxic if Swallowed

SKIN IRRITATION

EU - R-phrases

R34 - Causes burns

CANCER

EU - R-phrases

R40 - Limited Evidence of Carcinogenic Effects

SKIN SENSITIZE	EU - R-phrases	R43 - May cause sensitization by skin contact
RESPIRATORY	AOEC - Asthmagens	Asthmagen (G) - generally accepted
CANCER	US EPA - IRIS Carcinogens	(1986) Group B1 - Probable human Carcinogen
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Known to be a human Carcinogen
MAMMALIAN	EU - GHS (H-Statements)	H301 - Toxic if swallowed
MAMMALIAN	EU - GHS (H-Statements)	H311 - Toxic in contact with skin
SKIN IRRITATION	EU - GHS (H-Statements)	H314 - Causes severe skin burns and eye damage
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
MAMMALIAN	EU - GHS (H-Statements)	H331 - Toxic if inhaled
GENE MUTATION	EU - GHS (H-Statements)	H341 - Suspected of causing genetic defects
CANCER	EU - GHS (H-Statements)	H350 - May cause cancer
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization
MAMMALIAN	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances
CANCER	Korea - GHS	Carcinogenicity - Category 1 [H350 - May cause cancer]
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
CANCER	Japan - GHS	Carcinogenicity - Category 1A
<p>SUBSTANCE NOTES: Residual from the phenolic resin. Present in the final product at concentrations below 7 ppm. GREENGUARD GOLD certified.</p>		

**PRE-PAINTED GALVANIZED STEEL SHEETS**

Inventory Threshold: 100 ppm

%: **40.1900**

Residuals Considered: Yes

**HPD URL:**

Material Notes: Different suppliers of galvanized steel and different paints are used for Noroc® panels. Their compositions have been adapted to the variations and ranges may apply. Galvanized steel represents 98,25% to 98,86% of prepainted sheets and the remaining is paint. An average composition of most common paint used for those panels has been used for the HPD preparation.

**IRON**

ID: 7439-89-6

%: 88.0000 - 98.8600      GS: LT-P1      RC: None      NANO: NO      ROLE: main element

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

ENDOCRINE      TEDX - Potential Endocrine Disruptors      Potential Endocrine Disruptor

SUBSTANCE NOTES: See Material Notes.

**ZINC**

ID: 7440-66-6

%: 0.1500 - 9.0000      GS: LT-P1      RC: None      NANO: NO      ROLE: galvanizing element

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

ACUTE AQUATIC      EU - R-phrases      R50 - Very Toxic to Aquatic Organisms

ACUTE AQUATIC      EU - GHS (H-Statements)      H400 - Very toxic to aquatic life

CHRON AQUATIC      EU - GHS (H-Statements)      H410 - Very toxic to aquatic life with long lasting effects

ENDOCRINE      TEDX - Potential Endocrine Disruptors      Potential Endocrine Disruptor

MULTIPLE      German FEA - Substances Hazardous to Waters      Class 2 - Hazard to Waters

PHYSICAL HAZARD (REACTIVE)      EU - GHS (H-Statements)      H250 - Catches fire spontaneously if exposed to air

PHYSICAL HAZARD (REACTIVE)      EU - GHS (H-Statements)      H260 - In contact with water releases flammable gases which may ignite spontaneously

SUBSTANCE NOTES: See Material Notes.

**TITANIUM DIOXIDE**

ID: 13463-67-7

%: 0.1500 - 0.4700      GS: LT-1      RC: None      NANO: NO      ROLE: Paint ingredient

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

CANCER      US CDC - Occupational Carcinogens      Occupational Carcinogen

CANCER      CA EPA - Prop 65      Carcinogen - specific to chemical form or exposure route

CANCER      IARC      Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources

ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
SUBSTANCE NOTES: See Material Notes.		

TERLON		ID: 63148-69-6		
%: 0.1000 - 0.1300	GS: NoGS	RC: None	NANO: NO	ROLE: Paint ingredient
<b>HAZARDS:</b>		<b>AGENCY(IES) WITH WARNINGS:</b>		
None Found		No warnings found on HPD Priority lists		
SUBSTANCE NOTES: Approximation for "Alkyd polyester resin".				

ACRYLATES		ID: 102256-29-1		
%: 0.1000 - 0.2000	GS: NoGS	RC: None	NANO: NO	ROLE: Paint ingredient
<b>HAZARDS:</b>		<b>AGENCY(IES) WITH WARNINGS:</b>		
None Found		No warnings found on HPD Priority lists		
SUBSTANCE NOTES: Approximation for "acrylic resin".				

STRONTIUM CHROMATE		ID: 7789-06-2		
%: 0.0600 - 0.0900	GS: LT-1	RC: None	NANO: NO	ROLE: Paint ingredient
<b>HAZARDS:</b>		<b>AGENCY(IES) WITH WARNINGS:</b>		
MAMMALIAN	EU - R-phrases	R22 - Harmful if Swallowed		
CANCER	EU - R-phrases	R45 - May cause cancer		
ACUTE AQUATIC	EU - R-phrases	R50 - Very Toxic to Aquatic Organisms		
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans		
CANCER	CA EPA - Prop 65	Carcinogen		
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity		
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Female		
CANCER	US NIH - Report on Carcinogens	Known to be a human Carcinogen		
CANCER	EU - SVHC Authorisation List	Carcinogenic - Banned unless Authorised		

ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CANCER	EU - GHS (H-Statements)	H350 - May cause cancer
CANCER	EU - GHS (H-Statements)	H350i - May cause cancer by inhalation
CANCER	EU - REACH Annex XVII CMRs	Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization
CANCER	Korea - GHS	Carcinogenicity - Category 1 [H350 - May cause cancer]
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
CANCER	New Zealand - GHS	6.7A - Known or presumed human carcinogens
CANCER	Japan - GHS	Carcinogenicity - Category 1A
GENE MUTATION	MAK	Germ Cell Mutagen 2
CANCER	Australia - GHS	H350 - May cause cancer
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male

SUBSTANCE NOTES: See Material Notes.

**CHROMIUM**

ID: 7440-47-3

%: 0.0000 - 0.6400      GS: LT-P1      RC: None      NANO: NO      ROLE: alloying element

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES: See Material Notes.

## COPPER

ID: 7440-50-8

%: 0.0000 - 0.2000	GS: LT-UNK	RC: None	NANO: NO	ROLE: alloying element
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**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

## MANGANESE

ID: 7439-96-5

%: 0.0000 - 2.2000	GS: LT-P1	RC: None	NANO: NO	ROLE: alloying element
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**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
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MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
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REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1B
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SUBSTANCE NOTES: See Material Notes.

## NICKEL

ID: 7440-02-0

%: 0.0000 - 0.2000	GS: LT-1	RC: None	NANO: NO	ROLE: alloying element
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**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

MAMMALIAN	EU - R-phrases	R23 - Toxic by Inhalation (gas, vapour, dust/mist)
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CANCER	EU - R-phrases	R40 - Limited Evidence of Carcinogenic Effects
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SKIN SENSITIZE	EU - R-phrases	R43 - May cause sensitization by skin contact
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ORGAN TOXICANT	EU - R-phrases	R48: Danger of serious damage to health by prolonged exposure.
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ACUTE AQUATIC	EU - R-phrases	R52 - Harmful to Aquatic Organisms
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CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
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CANCER	IARC	Group 2b - Possibly carcinogenic to humans
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CANCER	CA EPA - Prop 65	Carcinogen
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CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
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CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
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RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only
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SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: See Material Notes.

**ALUMINUM**

ID: 7429-90-5

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

**AGENCY(IES) WITH WARNINGS:**

RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H228 - Flammable solid
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H261 - In contact with water releases flammable gases

SUBSTANCE NOTES: Galvanizing may add trace amounts of aluminum at 0.055w% max, antimony at 0.011w% max and lead at 0.004w% max.

**CADMIUM**

ID: 7440-43-9

%: Impurity/Residual	GS: LT-1	RC: None	NANO: NO	ROLE: Impurity/Residual
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**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

MAMMALIAN	EU - R-phrases	R23 - Toxic by Inhalation (gas, vapour, dust/mist)
MAMMALIAN	EU - R-phrases	R25 - Toxic if Swallowed
MAMMALIAN	EU - R-phrases	R26 - Very Toxic by Inhalation
CANCER	EU - R-phrases	R45 - May cause cancer



ORGAN TOXICANT	EU - R-phrases	R48: Danger of serious damage to health by prolonged exposure.
ACUTE AQUATIC	EU - R-phrases	R50 - Very Toxic to Aquatic Organisms
REPRODUCTIVE	EU - R-phrases	R62 - Possible risk of impaired fertility
DEVELOPMENTAL	EU - R-phrases	R63 - Possible risk of harm to the unborn child
CANCER	US EPA - IRIS Carcinogens	(1986) Group B1 - Probable human Carcinogen
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
PBT	US EPA - Priority PBTs (NWMP)	Priority PBT
PBT	WA DoE - PBT	PBT
GENE MUTATION	EU - R-phrases	R68 - May cause irreversible effects
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CANCER	EU - SVHC Authorisation List	Carcinogenic - Candidate list
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
MAMMALIAN	EU - GHS (H-Statements)	H330 - Fatal if inhaled
GENE MUTATION	EU - GHS (H-Statements)	H341 - Suspected of causing genetic defects
CANCER	EU - GHS (H-Statements)	H350 - May cause cancer
REPRODUCTIVE	EU - GHS (H-Statements)	H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
CANCER	EU - REACH Annex XVII CMRs	Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	Korea - GHS	Carcinogenicity - Category 1 [H350 - May cause cancer]
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
GENE MUTATION	New Zealand - GHS	6.6A - Known or presumed human mutagens
CANCER	New Zealand - GHS	6.7A - Known or presumed human carcinogens
REPRODUCTIVE	New Zealand - GHS	6.8A - Known or presumed human reproductive or developmental toxicants
GENE MUTATION	MAK	Germ Cell Mutagen 3a
CANCER	Malaysia - GHS	H350 - May cause cancer
CANCER	Australia - GHS	H350 - May cause cancer
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air

SUBSTANCE NOTES: May be present as impurities in the galvanized steel.

**LEAD**

ID: 7439-92-1

%: Impurity/Residual      GS: LT-1      RC: None      NANO: NO      ROLE: Impurity/Residual

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

MAMMALIAN	EU - R-phrases	R20 - Harmful by Inhalation (gas or vapor or dust/mist)
MAMMALIAN	EU - R-phrases	R22 - Harmful if Swallowed
ACUTE AQUATIC	EU - R-phrases	R50 - Very Toxic to Aquatic Organisms
DEVELOPMENTAL	EU - R-phrases	R61 - May cause harm to the unborn child
REPRODUCTIVE	EU - R-phrases	R62 - Possible risk of impaired fertility
DEVELOPMENTAL	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
CANCER	US EPA - IRIS Carcinogens	(1986) Group B2 - Probable human Carcinogen
CANCER	IARC	Group 2a - Agent is probably Carcinogenic to humans
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity

PBT	US EPA - Priority PBTs (NWMP)	Priority PBT
PBT	WA DoE - PBT	PBT
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Female
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Priority PBTs (PPT)	Priority PBT
PBT	US EPA - Toxics Release Inventory PBTs	PBT
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
DEVELOPMENTAL	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity
REPRODUCTIVE	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Reproductive Toxicity
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
DEVELOPMENTAL	EU - GHS (H-Statements)	H360Df - May damage the unborn child. Suspected of damaging fertility
REPRODUCTIVE	EU - GHS (H-Statements)	H360FD - May damage fertility. May damage the unborn child
DEVELOPMENTAL	EU - GHS (H-Statements)	H362 - May cause harm to breast-fed children
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 1 - Substances known to impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
REPRODUCTIVE	New Zealand - GHS	6.8A - Known or presumed human reproductive or developmental toxicants
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1A
GENE MUTATION	MAK	Germ Cell Mutagen 3a
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1A

SUBSTANCE NOTES: Galvanizing may add trace amounts of aluminum at 0.055w% max, antimony at 0.011w% max and lead at 0.004w% max. Lead may also be present as an impurity in the steel at a concentration < 1ppm.

**ANTIMONY**

ID: 7440-36-0

%: Impurity/Residual	GS: LT-1	RC: None	NANO: NO	ROLE: Impurity/Residual
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**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

MAMMALIAN	EU - R-phrases	R20 - Harmful by Inhalation (gas or vapor or dust/mist)
MAMMALIAN	EU - R-phrases	R22 - Harmful if Swallowed
ACUTE AQUATIC	EU - R-phrases	R51 - Toxic to Aquatic Organisms
CHRON AQUATIC	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man

SUBSTANCE NOTES: Galvanizing may add trace amounts of aluminum at 0.055w% max, antimony at 0.011w% max and lead at 0.004w% max.

**POLYVINYLIDENE FLUORIDE (1,1-DIFLUOROETHENE HOMOPOLYMER)**

ID: 24937-79-9

%: 0.0000 - 0.4000	GS: LT-UNK	RC: None	NANO: NO	ROLE: Paint ingredient
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**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

None Found	No warnings found on HPD Priority lists
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SUBSTANCE NOTES: PVDF paint only. See Material Notes.

**POLYESTER**

ID: 113669-95-7

%: 0.0000 - 0.3300	GS: NoGS	RC: None	NANO: NO	ROLE: Paint ingredient
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**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

None Found	No warnings found on HPD Priority lists
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SUBSTANCE NOTES: See Material Notes.

**FORMALDEHYDE, MELAMINE POLYMER, METHYLATED**

ID: 68002-20-0

%: 0.0000 - 0.1100	GS: LT-UNK	RC: None	NANO: NO	ROLE: Paint ingredient
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**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

None Found	No warnings found on HPD Priority lists
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SUBSTANCE NOTES: See Material Notes.

ACRYLONITRILE -METHYL-METHACRYLATE -VINYLIDENE CHLORIDE COPOLYMER ID: 25036-25-3

%: 0.0000 - 0.1700 GS: LT-P1 RC: None NANO: NO ROLE: Paint ingredient

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

ENDOCRINE EU - Priority Endocrine Disrupters Category 1 - In vivo evidence of Endocrine Disruption Activity

SUBSTANCE NOTES: Only for PVDF paint. See Material Notes.

2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE ID: 6846-50-0

%: 0.0000 - 0.1500 GS: LT-P1 RC: None NANO: NO ROLE: Paint ingredient

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

ENDOCRINE TEDX - Potential Endocrine Disruptors Potential Endocrine Disruptor

SUBSTANCE NOTES: See Material Notes.

**SEALANT #1**

%: 0.0000 - 1.0000

HPD URL:

Inventory Threshold: 1000 ppm

Residuals Considered: Yes

Material Notes: Butyl sealant. Confidential information have been retained. The exact composition, as well as names and CAS# of substances are protected by a NDA.

UNDISCLOSED

%: 50.0000 - 60.0000 GS: LT-UNK RC: None NANO: NO ROLE: Additive

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

UNDISCLOSED

%: 20.0000 - 30.0000 GS: LT-UNK RC: None NANO: NO ROLE: Reagent

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

UNDISCLOSED

%: 10.0000 - 20.0000 GS: BM-2 RC: None NANO: NO ROLE: Solvent

HAZARDS:

AGENCY(IES) WITH WARNINGS:

MAMMALIAN EU - GHS (H-Statements) H304 - May be fatal if swallowed and enters airways

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

SUBSTANCE NOTES: See Material Notes.

UNDISCLOSED

%: 1.0000 - 10.0000 GS: LT-UNK RC: None NANO: NO ROLE: Reagent

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

UNDISCLOSED

%: 1.0000 - 5.0000 GS: LT-P1 RC: None NANO: NO ROLE: Filler

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER Japan - GHS Carcinogenicity - Category 1A

SUBSTANCE NOTES: See Material Notes.

SEALANT #2

%: 0.0000 - 1.0000

HPD URL:

Inventory Threshold: 1000 ppm

Residuals Considered: Yes

Material Notes: Silicone based sealant. According to the manufacturer, limestone and fumed silica are encapsulated in the final silicone mix and are not airborne.

SILOXANES AND SILICONES, DI-ME, ME HYDROGEN

ID: 68037-59-2

%: 30.0000 - 70.0000 GS: LT-P1 RC: None NANO: NO ROLE: Reagent

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

**LIMESTONE; CALCIUM CARBONATE**

ID: 1317-65-3

%: 10.0000 - 25.0000

GS: LT-UNK

RC: UNK

NANO: NO

ROLE: Colorant

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

**POLYDIMETHYLSILOXANES**

ID: 63148-62-9

%: 10.0000 - 30.0000

GS: LT-P1

RC: None

NANO: NO

ROLE: Reagent

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

PBT

EC - CEPA DSL

Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans

SUBSTANCE NOTES: See Material Notes.

**2-BUTANONE, O,O',O''-(METHYLSILYLIDYNE)TRIOXIME (8CI)(9CI)**

ID: 22984-54-9

%: 3.0000 - 5.0000

GS: LT-UNK

RC: None

NANO: NO

ROLE: ingredient

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

**FUMED SILICA, CRYSTALLINE-FREE**

ID: 112945-52-5

%: 3.0000 - 9.0000

GS: LT-UNK

RC: None

NANO: NO

ROLE: Additive

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

## 1,2-ETHANEDIAMINE, N-(3-(TRIMETHOXYSILYL)PROPYL)-(9CI)

ID: 1760-24-3

%: 0.3000 - 1.0000

GS: LT-UNK

RC: None

NANO: NO

ROLE: ingredient

**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

## BUTAN-2-ONE O,O',O''-(VINYL-SILYLIDYNE)TRIOXIME

ID: 2224-33-1

%: 0.3000 - 1.0000

GS: BM-1

RC: None

NANO: NO

ROLE: ingredient

**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

## DIBUTYL TIN DILAURATE

ID: 77-58-7

%: 0.3000 - 1.5000

GS: LT-1

RC: None

NANO: NO

ROLE: Catalyst

**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

PBT

OSPAR - Priority PBTs &amp; EDs &amp; equivalent concern

PBT - Chemical for Priority Action

MULTIPLE

ChemSec - SIN List

CMR - Carcinogen, Mutagen &amp;/or Reproductive Toxicant

ENDOCRINE

ChemSec - SIN List

Endocrine Disruption

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 3 - Severe Hazard to Waters

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

SUBSTANCE NOTES: See Material Notes.

## OCTAMETHYLCYCLOTETrasiloxane (D4)

ID: 556-67-2

%: 0.1000 - 0.3000

GS: BM-1

RC: None

NANO: NO

ROLE: reagent

**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

REPRODUCTIVE

EU - R-phrases

R62 - Possible risk of impaired fertility

ENDOCRINE

EU - Priority Endocrine Disrupters

Category 1 - In vivo evidence of Endocrine Disruption Activity



PBT	EU - ESIS PBT	Under PBT evaluation
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTE) to the Environment (based on aquatic organisms)
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - Action Plan in development
REPRODUCTIVE	EU - GHS (H-Statements)	H361f - Suspected of damaging fertility
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - ongoing chemical (risk) assessment
SUBSTANCE NOTES: See Material Notes.		

**ADHESIVE #3**

**%: 0.0000 - 1.0000 HPD URL:**

Inventory Threshold: 1000 ppm Residuals Considered: Yes

Material Notes: polyurethane based adhesive.

**POLYURETHANE FOAMS**

ID: 9009-54-5

%: 100.0000      GS: LT-UNK      RC: None      NANO: NO      ROLE: Main material

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: The exact chemistry is known but no CAS number could be assigned to the product of this reaction. Reaction between isocyanates and polyols. It was decided to add a generic CAS for polyurethane.

**XYLENES**

ID: 1330-20-7

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

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

MAMMALIAN

EU - R-phrases

R20 - Harmful by Inhalation (gas or vapor or dust/mist)

MAMMALIAN	EU - R-phrases	R21 - Harmful in Contact with Skin
SKIN IRRITATION	EU - R-phrases	R38 - Irritating to skin
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1B

SUBSTANCE NOTES: Solvent that may be present in the final product after polymerization, due to incomplete vaporization.

**DIBUTYLTIN DILAURATE**

ID: 77-58-7

%: Impurity/Residual	GS: LT-1	RC: None	NANO: NO	ROLE: Impurity/Residual
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**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1B

SUBSTANCE NOTES: Catalyst in the reaction.

**ETHYLBENZENE**

ID: 100-41-4

%: Impurity/Residual	GS: BM-2	RC: None	NANO: NO	ROLE: Impurity/Residual
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**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

MAMMALIAN	EU - R-phrases	R20 - Harmful by Inhalation (gas or vapor or dust/mist)
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H225 - Highly flammable liquid and vapour
MAMMALIAN	EU - GHS (H-Statements)	H304 - May be fatal if swallowed and enters airways
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

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SUBSTANCE NOTES: Solvent that may be present in the final product after polymerization, due to incomplete vaporization.

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### 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.



### 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.



### Section 5: General Notes



## MANUFACTURER INFORMATION

MANUFACTURER: Norbec Architectural Inc./Norbec Systems Inc. CONTACT NAME: Daniel Fournier

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## KEY

**OSHA MSDS** Occupational Safety and Health Administration Material Safety Data Sheet

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

### Hazard Types

**AQU** Aquatic toxicity

**GLO** Global warming

**PHY** Physical Hazard (reactive)

**CAN** Cancer

**MAM** Mammalian/systemic/organ toxicity

**REP** Reproductive toxicity

**DEV** Developmental toxicity

**MUL** Multiple hazards

**RES** Respiratory sensitization

**END** Endocrine activity

**NEU** Neurotoxicity

**SKI** Skin sensitization/irritation/corrosivity

**EYE** Eye irritation/corrosivity

**OZO** Ozone depletion

**LAN** Land Toxicity

**GEN** Gene mutation

**PBT** Persistent Bioaccumulative Toxic

**NF** Not found on Priority Hazard Lists

### GreenScreen (GS)

**BM-4** Benchmark 4 (prefer-safer chemical)

**LT-P1** List Translator Possible Benchmark 1

**BM-3** Benchmark 3 (use but still opportunity for improvement) BM-2  
Benchmark 2 (use but search for safer substitutes)

**LT-1** List Translator Likely Benchmark 1

**BM-1** Benchmark 1 (avoid - chemical of high concern)

**LT-UNK** List Translator Benchmark Unknown (insufficient  
information from List Translator lists to benchmark)

**BM-U** Benchmark Unspecified (insufficient data to benchmark)

**UNK** Unknown (no data on List Translator Lists)

### Recycled Types

**PreC** Preconsumer (Post-Industrial)

**PostC** Postconsumer

**Both** Both Preconsumer and Postconsumer

**Unk** Inclusion of recycled content is unknown

**None** Does not include recycled content

### Other

**Nano** Composed of nanoscale particles or nanotechnology

### Declaration Level

**Self-declared** Manufacturer's self-declaration (First Party)

**Independent Lab** Manufacturer's self-declaration using results from an independent lab

**Second Party** Verification by trade association or other interested party

**Third Party** Verification by independent certifier

**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 does not provide an assessment of health impacts throughout the product life cycle. It does not provide an assessment of exposure or risk associated with product handling or use. It also does not address potential health impacts of: (i) substances used or created during the manufacturing process unless they remain in the final product, or (ii) substances created after the product is delivered for end use (e.g., if the product burns, degrades, or otherwise changes chemical composition).

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

A disclosure completed in compliance with the HPD Open Standard is referred to as a "Health Product Declaration," or "HPD." 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 Open Standard noted.