

HPD UNIQUE IDENTIFIER: 27023

CLASSIFICATION: 11 41 23 Walk-In Coolers

PRODUCT DESCRIPTION: This HPD covers Norbec® panels by Norbec Systems Inc. Norbec® panels are high-energy-efficiency insulated panels for the building of cold rooms (freezers, refrigerators, storage space). More specifically, the HPD has been prepared based on average compositions of Norbec® (47 in.) using a polyurethane foam core of 4 inches average thick and a 26 gauge thickness for steel sheets. Other CSI masterformat® designations that apply to Norbec® panels: 11 41 26, 13 21 13, 13 21 26

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

<p>Inventory Reporting Format</p> <p><input checked="" type="radio"/> Nested Materials Method <input type="radio"/> Basic Method</p> <p>Threshold Disclosed Per</p> <p><input type="radio"/> Material <input checked="" type="radio"/> Product</p>	<p>Threshold Level</p> <p><input type="radio"/> 100 ppm <input checked="" type="radio"/> 1,000 ppm <input type="radio"/> Per GHS SDS <input type="radio"/> Other</p>	<p>Residuals/Impurities</p> <p>Considered in 3 of 4 Materials</p> <p>Explanation(s) provided for Residuals/Impurities?</p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>	<p><i>All Substances Above the Threshold Indicated Are:</i></p> <p>Characterized <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No <i>% weight and role provided for all substances.</i></p> <p>Screened <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No <i>All substances screened using Priority Hazard Lists with results disclosed.</i></p> <p>Identified <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No <i>All substances disclosed by Name (Specific or Generic) and Identifier.</i></p>
--	---	---	--

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

PRE-PAINTED GALVANIZED STEEL SHEETS [IRON LT-P1 | END
MANGANESE LT-P1 | END | MUL | REP NICKEL LT-1 | CAN | RES | MUL |
SKI | MAM CHROMIUM LT-P1 | END | SKI | RES ZINC LT-P1 | END |
MUL | PHY | AQU TITANIUM DIOXIDE LT-1 | CAN | END TERLON NoGS
BUTYL ACRYLATE - HYDROXYETHYL ACRYLATE - METHYL
METHACRYLATE COPOLYMER LT-UNK STRONTIUM CHROMATE LT-
1 | CAN | SKI | MUL | DEV | REP | GEN | AQU COPPER LT-P1 | AQU
MOLYBDENUM LT-UNK FATTY ACIDS, CASTOR-OIL, CAUSTIC-
OXIDIZED, DISTN. RESIDUES, ESTERS WITH 1,3-BUTANEDIOL NoGS
PHOSPHORIC ACID, COMPOUNDS, NICKEL(2+) ZINC SALT (2:1:2) LT-1
| CAN | RES ZINC PHOSPHATE LT-P1 | MUL | AQU 2,2,4-TRIMETHYL-
1,3-PENTANEDIOL DIISOBUTYRATE LT-P1 | END BISPHENOL A-
BISPHENOL A DIGLYCIDYL ETHER POLYMER LT-P1 | END 1,3,5-
TRIAZINE-2,4,6-TRIAMINE, POLYMER WITH FORMALDEHYDE,
METHYLATED LT-UNK FATTY ACIDS, CASTOR-OIL, CAUSTIC-
OXIDIZED, DISTN. RESIDUES, ESTERS WITH 1,3-BUTANEDIOL NoGS
POLYVINYLIDENE FLUORIDE LT-UNK] INSULATING MATERIAL [
CHLOROTRIFLUOROPROPENE NoGS POLYURETHANE FOAMS LT-
UNK] CAMLOCK [ZINC LT-P1 | AQU | END | MUL | PHY STEEL NoGS]
HIGH IMPACT POLYSTYRENE [POLYSTYRENE LT-UNK]

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

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

INVENTORY AND SCREENING NOTES:

This HPD has been prepared using the Material Content Inventory. Guidelines for reporting reaction products are still under development by HPDC. Norbec® Company will update the HPD accordingly once these guidelines get published. In this HPD, for adhesive, substances at or above the threshold, have been declared as unreacted. Substances present in Norbec® panels as well as known residuals and impurities, have been disclosed at 1,000 ppm. More details about how residuals and impurities were considered available in the appropriate sections.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: CDPH Standard Method - Not tested

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

Yes

No

PREPARER: **Vertima**

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2022-01-07

PUBLISHED DATE: 2022-01-07

EXPIRY DATE: 2025-01-07

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

PRE-PAINTED GALVANIZED STEEL SHEETS

#: 62.7800 - 63.5500

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: There are no known impurities.

OTHER MATERIAL NOTES: Different suppliers of galvanized steel and different paints are used for Noroc panels. Weight percentage may vary as this HPD covers multiple configurations and thicknesses of Noroc panels. Galvanized steel represents 98% to 99,5% 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

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-01-07 15:06:11

#: 90.0000 - 95.0000

GS: LT-P1

RC: None

NANO: No

SUBSTANCE ROLE: Structure component

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

END

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-01-07 15:06:12

#: 2.0000 - 2.2300

GS: LT-P1

RC: None

NANO: No

SUBSTANCE ROLE: Alloy element

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

END

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MUL

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

REP

GHS - Japan

H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

NICKEL

ID: 7440-02-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-01-07 15:06:13

#: 0.2000 - 0.2500

GS: LT-1

RC: None

NANO: No

SUBSTANCE ROLE: Alloy element

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	MAK	Carcinogen Group 1 - Substances that cause cancer in man
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
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CAN	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H317 - May cause an allergic skin reaction [Skin sensitization - Category 1]
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]

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

CHROMIUM

ID: 7440-47-3

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

ZINC

ID: 7440-66-6

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

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H260 - In contact with water releases flammable gases which may ignite spontaneously [Substances and mixtures which, in contact with water, emit flammable gases - Category 1]
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]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-01-07 15:06:16**

#: **0.1500 - 0.4700** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Surface modifier**

HAZARD TYPE	AGENCY AND LIST TITLES	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	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

TERLON

ID: 63148-69-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-01-07 15:06:17**

#: **0.1000 - 0.1300** GS: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Surface modifier**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

BUTYL ACRYLATE - HYDROXYETHYL ACRYLATE - METHYL METHACRYLATE COPOLYMER

ID: 25951-38-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-01-07 15:06:18**

%: **0.1000 - 0.1200** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Surface modifier**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

STRONTIUM CHROMATE

ID: 7789-06-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-01-07 15:06:19**

%: **0.0600 - 0.1000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Surface modifier**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	EU - REACH Annex XVII CMRs	Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man
CAN	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
CAN	MAK	Carcinogen Group 1 - Substances that cause cancer in man
MUL	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
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
DEV	CA EPA - Prop 65	Developmental toxicity
CAN	EU - SVHC Authorisation List	Carcinogenic - Candidate list
CAN	EU - SVHC Authorisation List	Carcinogenic - Banned unless Authorised
REP	CA EPA - Prop 65	Reproductive Toxicity - Female
REP	CA EPA - Prop 65	Reproductive Toxicity - Male
GEN	MAK	Germ Cell Mutagen 2
CAN	GHS - New Zealand	6.7A - Known or presumed human carcinogens
CAN	GHS - Australia	H350 - May cause cancer [Carcinogenicity - Category 1A or 1B]
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1A]
CAN	GHS - Korea	H350 - May cause cancer [Carcinogenicity - Category 1]
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H317 - May cause an allergic skin reaction [Skin sensitization - Category 1]
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H350 - May cause cancer [Carcinogenicity - 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]
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-07-09 17:29:16		
%: 0.0000 - 0.2000	GS: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
AQU	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects		
SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.				

MOLYBDENUM ID: **7439-98-7**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-01-07 15:06:20		
%: 0.0000 - 0.1000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.				

FATTY ACIDS, CASTOR-OIL, CAUSTIC-OXIDIZED, DISTN. RESIDUES, ESTERS WITH 1,3-BUTANEDIOL ID: **113669-95-7**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-01-07 15:06:27		
%: 0.0000 - 0.1700	GS: NoGS	RC: None	NANO: No	SUBSTANCE ROLE: Surface modifier
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.				

PHOSPHORIC ACID,COMPOUNDS,NICKEL(2+) ZINC SALT (2:1:2) ID: **90053-13-7**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-01-07 15:06:26		
%: 0.0000 - 0.1000	GS: LT-1	RC: None	NANO: No	SUBSTANCE ROLE: Surface modifier
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
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		
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced		
SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.				

ZINC PHOSPHATE ID: **7779-90-0**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-01-07 15:06:25		
---	--	---	--	--

#: 0.0000 - 0.9000

GS: LT-P1

RC: None

NANO: No

SUBSTANCE ROLE: Surface modifier

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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]

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE

ID: 6846-50-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-01-07 15:06:24**

#: 0.0000 - 0.1500

GS: LT-P1

RC: None

NANO: No

SUBSTANCE ROLE: Surface modifier

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

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

BISPHENOL A-BISPHENOL A DIGLYCIDYL ETHER POLYMER

ID: 25036-25-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-01-07 15:06:30**

#: 0.0000 - 0.1700

GS: LT-P1

RC: None

NANO: No

SUBSTANCE ROLE: Surface modifier

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

1,3,5-TRIAZINE-2,4,6-TRIAMINE, POLYMER WITH FORMALDEHYDE, METHYLATED

ID: 68002-20-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-01-07 15:06:31**

#: 0.0000 - 0.1100

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Surface modifier

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.

FATTY ACIDS, CASTOR-OIL, CAUSTIC-OXIDIZED, DISTN. RESIDUES, ESTERS WITH 1,3-BUTANEDIOL

ID: 113669-95-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-01-07 15:06:31	
%: 0.0000 - 0.3300	GS: NoGS	RC: None	NANO: No SUBSTANCE ROLE: Surface modifier
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS	
None found		No warnings found on HPD Priority Hazard Lists	
SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.			

POLYVINYLIDENE FLUORIDE ID: **24937-79-9**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-01-07 15:06:32	
%: 0.0000 - 0.4000	GS: LT-UNK	RC: None	NANO: No SUBSTANCE ROLE: Surface modifier
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS	
None found		No warnings found on HPD Priority Hazard Lists	
SUBSTANCE NOTES: Ranges are used to cover all Norbec panels configurations and thicknesses. The percentage vary because, different pre-painted galvanized steel sheets suppliers have different recipes.			

INSULATING MATERIAL %: **29.9700 - 30.2900**

PRODUCT THRESHOLD: 1000 ppm	RESIDUALS AND IMPURITIES CONSIDERED: Yes	MATERIAL TYPE: Polymeric Material
RESIDUALS AND IMPURITIES NOTES: According to the manufacturer, there are no impurities. Substances are entirely consumed during the chemical reaction but the blowing agent may still be present in the final product at a weight percentage of 6.75%, hence, it was included.		
OTHER MATERIAL NOTES: Weight percentage may vary as this HPD covers multiple configurations and thicknesses of Norbec panels.		

CHLOROTRIFLUOROPROPENE ID: **102687-65-0**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-07-09 18:41:21	
%: 0.0000 - 6.7500	GS: NoGS	RC: None	NANO: No SUBSTANCE ROLE: Blowing agent
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS	
None found		No warnings found on HPD Priority Hazard Lists	
SUBSTANCE NOTES: Substance weight percentage intervals are used to cover different configurations and thicknesses of Norbec panels. Residuals and impurities declared by the manufacturers are below the reporting threshold.			

POLYURETHANE FOAMS ID: **9009-54-5**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-01-07 15:06:28	
%: 0.0000 - 93.2500	GS: LT-UNK	RC: None	NANO: No SUBSTANCE ROLE: Reagent
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS	
None found		No warnings found on HPD Priority Hazard Lists	
SUBSTANCE NOTES: Substance weight percentage intervals are used to cover different configurations and thicknesses of Norbec panels. Residuals and impurities declared by the manufacturers are below the reporting threshold.			

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: There are no known impurities.

OTHER MATERIAL NOTES: Weight percentage may vary as this HPD covers multiple configurations and thicknesses of Norbec panels.

ZINC

ID: 7440-66-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-07-09 18:47:37**%: **0.0000 - 6.8000**GS: **LT-P1**RC: **None**NANO: **No**SUBSTANCE ROLE: **Galvanizing**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
AQU	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
AQU	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
PHY	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air
PHY	EU - GHS (H-Statements)	H260 - In contact with water releases flammable gases which may ignite spontaneously

SUBSTANCE NOTES: Substance weight percentage intervals are used to cover different configurations and thicknesses of Norbec panels. Residuals and impurities declared by the manufacturers are below the reporting threshold.

STEEL

ID: 12597-69-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-07-09 18:45:54**%: **0.0000 - 93.2000**GS: **NoGS**RC: **None**NANO: **No**SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Substance weight percentage intervals are used to cover different configurations and thicknesses of Norbec panels. Residuals and impurities declared by the manufacturers are below the reporting threshold.

HIGH IMPACT POLYSTYRENE%: **1.2000**

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: According to the manufacturer, there are no know impurities. Substances are entirely consumed during the chemical reaction but an additive may still be present in the final product and it is below reporting threshold.

OTHER MATERIAL NOTES: High impact polystyrene materials is used when Norbec panels are installed in a wall or roof corners.

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-01-07 15:06:10**

%: **100.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: **There are no known residuals and impurities in this substance**

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	ISSUE DATE: 2021-07-	EXPIRY DATE:	CERTIFIER OR LAB: Norbec
APPLICABLE FACILITIES: Norbec	20		
CERTIFICATE URL:			
CERTIFICATION AND COMPLIANCE NOTES:			

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.

No accessories are required for this product.

Section 5: General Notes

MANUFACTURER INFORMATION

MANUFACTURER: Norbec Architectural Inc./Norbec Systems Inc.
ADDRESS: 97 Rue de Vaudreuil, Boucherville
 Quebec Quebec J4B 1K7, Canada
WEBSITE: <https://norbec.com/>

CONTACT NAME: Alexandre Belisle
TITLE: R&D Director
PHONE: 514 688-8628
EMAIL: abelisle@norbec.com

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

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.)
BM-2 Benchmark 2 (use but search for safer substitutes)	NoGS No GreenScreen.
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)	

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.