Norlam ®
by Norbec Architectural Inc./Norbec Systems Inc.

Health Product Declaration v2.0

created via: HPDC Online Builder

CLASSIFICATION: 07 42 43

PRODUCT DESCRIPTION: THIS HPD COVERS NORLAM® PANELS BY NORBEC ARCHITECTURAL INC. NORLAM® ARE HIGH-ENERGY-EFFICIENCY INSULATED PANELS WITH AN EXPANDED POLYSTYRENE CORE DESIGNED FOR BUILDING ENVELOPES. NORLAM® PANELS ARE OFFERED IN "L" VERSION FOR VERTICAL OR HORIZONTAL MOUNTING ON EXTERIOR WALLS, WITH AN OFFSET JOINT THAT CONCEALED THE FASTENER. MORE SPECIFICALLY, THE HPD HAS BEEN PREPARED BASED ON AVERAGE COMPOSITIONS OF NORLAM®-L (45½ IN.) TYPE I AND TYPE II, USING A POLYSTYRENE CORE OF 4 INCHES AND A 26 GAUGE THICKNESS FOR STEEL SHEETS.

Section 1: Summary

CONTENT INVENTORY

Threshold per material
- ◉ 100 ppm
- ◉ 1,000 ppm
- ○ Per GHS SDS
- ○ Per OSHA MSDS
- ◉ Other

Residuals and impurities considered in 6 of 6 materials
- ◉ see Section 2: Material Notes
- ◉ see Section 5: General Notes

Based on the selected Content Inventory Threshold:

Characterized.....	◉	○
Are the Percent Weight and Role provided for all substances?	Yes	No
Screened.....	◉	○
Are all substances screened using Priority Hazard Lists with results disclosed?	Yes	No
Identified.....	○	◉
Are all substances disclosed by Name (Specific or Generic) and Identifier?	Yes	No

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 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] INSULATING MATERIAL #2 [POLYSTYRENE LT-UNK PENTANE LT-P1 | AQU | MAM | MUL | PHY ISOPENTANE LT-P1 | AQU | MAM | MUL | PHY] 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''-(VINYLSILYLIDYNE)TRIOXIME BM-1 DIBUTYLTIN DILAURATE LT-1 | PBT | MUL | END | REP OCTAMETHYLCYCLOTETRASILOXANE (D4) BM-1 | REP | END | PBT | MUL] ADHESIVE #1 [HYDROCARBONS LT-UNK PARAFFIN LT-UNK ANOX 20 LT-UNK] ADHESIVE #2 [POLYURETHANE FOAMS LT-UNK *NONYL NONOXYNOL-10* NoGS *POLYETHYLENE GLYCOL* LT-UNK *ETHYLENE GLYCOL MONETHYL ETHER* LT-1 | MAM | REP | DEV | MUL | END *1,2-DICHLOROBENZENE* LT-P1 | MAM | EYE | SKI | AQU | END | MUL *DIPHENYLMETHANE-2,2'-DIISOCYANATE (2,2'-MDI)* LT-UNK | MAM | EYE | SKI | CAN | RES | MUL]

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. Norlam® panels have been screened at 1000 ppm. Two different sealants can be used for the fabrication and/or installation of Norlam® 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.

◉ Self-Published* ○ Third Party Verified
VERIFIER:
VERIFICATION #:
SCREENING DATE: June 28, 2017
RELEASE DATE: July 21, 2017
EXPIRY DATE*: June 28, 2020
* 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 and www.greenscreenchemicals.org.

PRE-PAINTED GALVANIZED STEEL SHEETS **%: 79.1700 - 85.0800** **HPD URL:**

Inventory Threshold: 100 ppm Residuals Considered: Yes

Material Notes: Different suppliers of galvanized steel and different paints are used for Norlam® 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

HAZARDS:	AGENCY(IES) WITH WARNINGS:
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

HAZARDS:	AGENCY(IES) WITH WARNINGS:
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

HAZARDS:		AGENCY(IES) WITH WARNINGS:
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

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

HAZARDS:		AGENCY(IES) WITH WARNINGS:
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: See Material Notes.

NICKEL ID: 7440-02-0

%: 0.0000 - 0.2000	GS: LT-1	RC: None	NANO: NO	ROLE: alloying element

HAZARDS:		AGENCY(IES) WITH WARNINGS:
MAMMALIAN	EU - R-phrases	R23 - Toxic by Inhalation (gas, vapour, dust/mist)
CANCER	EU - R-phrases	R40 - Limited Evidence of Carcinogenic Effects
SKIN SENSITIZE	EU - R-phrases	R43 - May cause sensitization by skin contact
ORGAN TOXICANT	EU - R-phrases	R48: Danger of serious damage to health by prolonged exposure.

ACUTE AQUATIC	EU - R-phrases	R52 - Harmful to Aquatic Organisms
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only
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

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

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

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

HAZARDS:	**AGENCY(IES) WITH WARNINGS:**
None Found	No warnings found on HPD Priority lists

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

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

None Found	No warnings found on HPD Priority lists

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

HAZARDS:	**AGENCY(IES) WITH WARNINGS:**
None Found	No warnings found on HPD Priority lists

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.

INSULATING MATERIAL #2 **%: 14.9300 - 20.8300** **HPD URL:**
Inventory Threshold: 1000 ppm Residuals Considered: Yes
Material Notes: The manufacturer reported no residuals or impurities.

POLYSTYRENE ID: 9003-53-6

%: 92.0000 - 97.0000	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: See Material Notes.

PENTANE ID: 109-66-0

%: 3.0000 - 8.0000	GS: LT-P1	RC: None	NANO: NO	ROLE: blowing agent

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
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
MAMMALIAN	EU - GHS (H-Statements)	H304 - May be fatal if swallowed and enters airways
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H225 - Highly flammable liquid and vapour

SUBSTANCE NOTES: See Material Notes.

ISOPENTANE ID: 78-78-4

%: 0.0000 - 3.0000	GS: LT-P1	RC: None	NANO: NO	ROLE: blowing agent

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
CHRON AQUATIC	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects
MAMMALIAN	EU - GHS (H-Statements)	H304 - May be fatal if swallowed and enters airways
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H224 - Extremely flammable liquid and vapour

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''-(VINYLSILYLIDYNE)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.

DIBUTYLTIN 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 & 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: 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 #1 **%: 0.0000 - 1.0000** **HPD URL:**

Inventory Threshold: Other Residuals Considered: Yes

Material Notes: Composition given by the adhesive manufacturer. No residuals or impurities reported.

HYDROCARBONS ID: 68920-06-9

%: 40.0000	GS: LT-UNK	RC: None	NANO: NO	ROLE: Tackifier

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material Notes.

PARAFFIN ID: 8002-74-2

%: 20.0000 - 30.0000	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.

ANOX 20 ID: 6683-19-8

%: 0.1000 - 1.0000	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.

ADHESIVE #2 **%: 0.0000 - 1.0000 HPD URL:**

Inventory Threshold: 1000 ppm Residuals Considered: Yes

Material Notes: Polyurethane 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: See Material Notes.

NONYL NONOXYNOL-10 ID: 9014-93-1

%: Impurity/Residual	GS: NoGS	RC: None	NANO: NO	ROLE: Impurity/Residual

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES: Residual in final foam.

POLYETHYLENE GLYCOL ID: 25322-68-3

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

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES: Residual in final foam.

ETHYLENE GLYCOL MONETHYL ETHER ID: 110-80-5

%: 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	R21 - Harmful in Contact with Skin
MAMMALIAN	EU - R-phrases	R22 - Harmful if Swallowed
REPRODUCTIVE	EU - R-phrases	R60 - May impair fertility
DEVELOPMENTAL	EU - R-phrases	R61 - May cause harm to the unborn child
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
REPRODUCTIVE	EU - SVHC Authorisation List	Toxic to reproduction - Candidate list
MAMMALIAN	EU - GHS (H-Statements)	H331 - Toxic if inhaled
REPRODUCTIVE	EU - GHS (H-Statements)	H360FD - May damage fertility. May damage the unborn child
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 2 - Substances which should be regarded as if they 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

MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
DEVELOPMENTAL	MAK	Pregnancy Risk Group B
REPRODUCTIVE	Korea - GHS	Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]
REPRODUCTIVE	New Zealand - GHS	6.8A - Known or presumed human reproductive or developmental toxicants
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1B
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1B
REPRODUCTIVE	Malaysia - GHS	H360Fd - May damage fertility. Suspected of damaging the unborn child
REPRODUCTIVE	Australia - GHS	H360Fd - May damage fertility. Suspected of damaging the unborn child

SUBSTANCE NOTES: Residual in final foam.

1,2-DICHLOROBENZENE ID: 95-50-1

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

HAZARDS:	**AGENCY(IES) WITH WARNINGS:**	
MAMMALIAN	EU - R-phrases	R22 - Harmful if Swallowed
EYE IRRITATION	EU - R-phrases	R36 - Irritating to eyes
SKIN IRRITATION	EU - R-phrases	R38 - Irritating to skin
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
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters

SUBSTANCE NOTES: Residual in final foam.

DIPHENYLMETHANE-2,2'-DIISOCYANATE (2,2'-MDI) ID: 2536-05-2

%: Impurity/Residual	GS: LT-UNK	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)
EYE IRRITATION	EU - R-phrases	R36 - Irritating to eyes
SKIN IRRITATION	EU - R-phrases	R38 - Irritating to skin
CANCER	EU - R-phrases	R40 - Limited Evidence of Carcinogenic Effects
RESPIRATORY	EU - R-phrases	R42 - May cause sensitization by inhalation
SKIN SENSITIZE	EU - R-phrases	R43 - May cause sensitization by skin contact
ORGAN TOXICANT	EU - R-phrases	R48: Danger of serious damage to health by prolonged exposure.
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
RESPIRATORY	EU - GHS (H-Statements)	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
RESPIRATORY	US EPA - PPT Chemical Action Plans	Inhalation sensitizer causing asthma and lung damage

SUBSTANCE NOTES: Residual in final foam.

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

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: Norbec Architectural Inc./Norbec Systems Inc.

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KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classi cation and Labeling of Chemicals Safety Data Sheet

Hazard Types

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

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 Unspeci ed (insu cient data to benchmark)
LT-P1 List Translator Possible Benchmark 1
LT-1 List Translator Likely Benchmark 1
LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists 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.