# Nordic Joist by Nordic Structures

**Classification:** 06 17 33 00 Wood I-Joists

**Product Description:** Nordic I-joists are made with finger-jointed black spruce lumber and oriented strand board webs, ensuring consistent quality, superior strength and longer span carrying capacity. Nordic I-joists are available in heights from 7 7/8 to 24 inches and in NI-20, NI-40, NI-40x, NI-60, NI-70, NI-80, NI-80x, NI-90 and NI-90x series.

## Section 1: Summary

### Inventory Inventory

<table>
<thead>
<tr>
<th>Threshold Reporting Format</th>
<th>Threshold level</th>
<th>Residuals/Impurities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nested Materials Method</td>
<td>100 ppm</td>
<td>Considered in 2 of 6 Materials</td>
</tr>
<tr>
<td>Basic Method</td>
<td>1,000 ppm</td>
<td>Considered in 2 of 6 Materials</td>
</tr>
<tr>
<td>Other</td>
<td>Per GHS SDS</td>
<td>Considered in 2 of 6 Materials</td>
</tr>
<tr>
<td>Other</td>
<td>Per OSHA MSDS</td>
<td>Considered in 2 of 6 Materials</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>SUBSTANCE</th>
<th>RESIDUAL OR IMPURITY</th>
<th>GREENSCREEN SCORE</th>
<th>HAZARD TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOOD1</td>
<td>BLACK SPRUCE</td>
<td>BLACK SPRUCE</td>
<td>NoGS</td>
<td>NORBORD ORIENTED STRAND BOARD (OSB)</td>
</tr>
</tbody>
</table>

### Nested Method / Product Threshold

#### Are All Substances Above the Threshold Indicated:

- Characterized
- Yes: Yes, No: No

#### Percent Weight and Role Provided:

- Yes: Yes, No: No

#### Using Priority Hazard Lists with Results Disclosed:

- Yes: Yes, No: No

#### Name and Identifier Provided:

- Yes: Yes, No: No

### INVENTORY AND SCREENING NOTES:

This HPD has been prepared considering a Nested Materials Inventory with a "Per Product" threshold of 1,000 ppm. Wood and all adhesives are Special Conditions Materials (biological material and reaction products) and are present in the product. Guidelines for reporting Special Conditions materials are still under development by HPDC, Nordic Structures will update the HPD accordingly once these guidelines get published.

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**Number of Greenscreen BM-4/BM3 contents:** 1

Contents highest concern GreenScreen Benchmark or List translator Score: LT-1

Nanomaterial: No
VOLATILE ORGANIC COMPOUND (VOC) CONTENT
VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE
VOC emissions: CDPH Standard Method v1.1 - Not tested
Other: APA Green Verification Report
Other: NAHB ICC 700 NGBS Green Certified Product

CONSISTENCY WITH OTHER PROGRAMS
No pre-checks completed or disclosed

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>VERIFIER: Vertima</td>
<td>PUBLISHED DATE: 2018-01-25</td>
</tr>
<tr>
<td>No</td>
<td>VERIFICATION #: Ute-3531</td>
<td>EXPIRY DATE: 2021-01-25</td>
</tr>
</tbody>
</table>
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 2.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-standard

<table>
<thead>
<tr>
<th>Material</th>
<th>%</th>
<th>HPD URL</th>
<th>Product Threshold</th>
<th>Residuals and Impurities Considered</th>
<th>Residuals and Impurities Notes</th>
<th>Other Material Notes</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOOD #1</td>
<td>63.10%</td>
<td>N/A</td>
<td>1000 ppm</td>
<td>Yes</td>
<td>No residuals and impurities for that material</td>
<td>Main component</td>
<td></td>
</tr>
<tr>
<td>BLACK SPRUCE (BLACK SPRUCE)</td>
<td>100.00%</td>
<td>N/A</td>
<td></td>
<td></td>
<td>Black Spruce lumber used in overall product for top and bottom flanges, depending on I-joist height and flange size.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NORBORD ORIENTED STRAND BOARD (OSB)</td>
<td>35.60%</td>
<td>N/A</td>
<td>1000 ppm</td>
<td>Yes</td>
<td>Residuals and impurities include free formaldehyde as disclosed in substances.</td>
<td>Composes the joist web.</td>
<td></td>
</tr>
<tr>
<td>WOOD (WOOD)</td>
<td>84.00% - 99.00%</td>
<td>N/A</td>
<td></td>
<td></td>
<td>Variety of Hardwood (e.g., Aspen, Poplar, Black Poplar, Birch, etc.) And/or Softwood (Southern Yellow Pine, Lodgepole Pine, Tamarack, Spruce..) But not Western Red Cedar.</td>
<td>Wood component in OSB</td>
<td></td>
</tr>
<tr>
<td>PHENOL FORMALDEHYDE (PHENOL FORMALDEHYDE)</td>
<td>1.00% - 8.00%</td>
<td>9003-35-4</td>
<td></td>
<td></td>
<td></td>
<td>Resin Solid</td>
<td></td>
</tr>
</tbody>
</table>
**Respiratory**

AOEC - Asthmagens

Asthmagen (Rs) - sensitizer-induced

**Substance Notes:** Less than 0.01% of free formaldehyde.

**Paraffin (Paraffin)**

**ID:** 8002-74-2

**%:** 0.1000 - 3.0000

**GS:** LT-UNK

**RC:** None

**NANO:** No

**Role:** Wax emulsion

**Hazards:**

None Found

No warnings found on HPD Priority lists

**Substance Notes:** Emulsion for OSB panels.

**Formaldehyde (Formaldehyde)**

**ID:** 50-00-0

**%:** Impurity/Residual

**GS:** LT-1

**RC:** None

**NANO:** No

**Role:** Impurity/Residual

**Hazards:**

- 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
<table>
<thead>
<tr>
<th>ENDOCRINE</th>
<th>TEDX - Potential Endocrine Disruptors</th>
<th>Potential Endocrine Disruptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>MULTIPLE</td>
<td>German FEA - Substances Hazardous to Waters</td>
<td>Class 3 - Severe Hazard to Waters</td>
</tr>
<tr>
<td>CANCER</td>
<td>MAK</td>
<td>Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels</td>
</tr>
<tr>
<td>SKIN SENSITIZE</td>
<td>MAK</td>
<td>Sensitizing Substance Sh - Danger of skin sensitization</td>
</tr>
<tr>
<td>MAMMALIAN</td>
<td>US EPA - EPCRA Extremely Hazardous Substances</td>
<td>Extremely Hazardous Substances</td>
</tr>
<tr>
<td>CANCER</td>
<td>Korea - GHS</td>
<td>Carcinogenicity - Category 1 [H350 - May cause cancer]</td>
</tr>
<tr>
<td>CANCER</td>
<td>EU - Annex VI CMRs</td>
<td>Carcinogen Category 1B - Presumed Carcinogen based on animal evidence</td>
</tr>
<tr>
<td>CANCER</td>
<td>Japan - GHS</td>
<td>Carcinogenicity - Category 1A</td>
</tr>
<tr>
<td>CANCER</td>
<td>Australia - GHS</td>
<td>H350i - May cause cancer by inhalation</td>
</tr>
<tr>
<td>CANCER</td>
<td>New Zealand - GHS</td>
<td>6.7A - Known or presumed human carcinogens</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** The process cures the resin, but small amounts of formaldehyde may be released from the finished product. The finished product contains less than 0.01% free formaldehyde by weight.

### POLYMERIC MDI (PMDI) (POLYMERIC MDI (PMDI))

<table>
<thead>
<tr>
<th>%: 0.0000 - 5.0000</th>
<th>GS: LT-UNK</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Adhesive</th>
</tr>
</thead>
</table>

**HAZARDS:**

**RESPIRATORY**

- AOEC - Asthmagens
  - Asthmagen (G) - generally accepted

**RESTRICTED LIST**

- US EPA - PPT Chemical Action Plans
  - EPA Chemical of Concern - Action Plan published

**RESPIRATORY**

- US EPA - PPT Chemical Action Plans
  - Inhalation sensitizer causing asthma and lung damage

**CANCER**

- MAK
  - Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

**RESPIRATORY**

- MAK
  - Sensitizing Substance Sah - Danger of airway & skin sensitization

**SUBSTANCE NOTES:** Once pressed the wood panels do not contain free or unreacted MDI. (Source: Nordbord SDS)

### ADHESIVE #2

<table>
<thead>
<tr>
<th>%: 0.8000</th>
<th>HPD URL: N/A</th>
</tr>
</thead>
</table>

**PRODUCT THRESHOLD:** 1000 ppm

**RESIDUALS AND IMPURITIES CONSIDERED:** No

**RESIDUALS AND IMPURITIES NOTES:** No information regarding impurities and residuals was found and/or was available for that material.

**OTHER MATERIAL NOTES:** Web-to-web, web-to-flange and/or finger joints adhesive. Latex polymer emulsion adhesive.

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

| ID: 9003-55-8 | HPD v2.1 created via HPDC Builder Page 5 of 17 |
HAZARDS:

None Found
No warnings found on HPD Priority lists

SUBSTANCE NOTES: Adhesive component.

LIMESTONE; CALCIUM CARBONATE (LIMESTONE; CALCIUM CARBONATE)

%: 20.0000 - 30.0000

HAZARDS:

None Found
No warnings found on HPD Priority lists

SUBSTANCE NOTES: Adhesive component

WATER (WATER)

%: 16.0000

HAZARDS:

None Found
No warnings found on HPD Priority lists

SUBSTANCE NOTES: Water is used in adhesive composition.

POLYURETHANE (POLYURETHANE)

%: 10.0000 - 30.0000

HAZARDS:

None Found
No warnings found on HPD Priority lists

SUBSTANCE NOTES: Adhesive component

POLY(VINYL ALCOHOL) (POLY(VINYL ALCOHOL))

%: 10.0000

HAZARDS:

None Found
No warnings found on HPD Priority lists

SUBSTANCE NOTES: PVOH used as an adhesive component

TOLUENE (TOLUENE)
### HAZARDS:

<table>
<thead>
<tr>
<th>Agency(ies) withWarnings:</th>
<th>EU - GHS (H-Statements)</th>
<th>EU - GHS (H-Statements)</th>
<th>EU - GHS (H-Statements)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammalian</td>
<td>H304 - May be fatal if swallowed and enters airways</td>
<td>H315 - Causes skin irritation</td>
<td>H361d - Suspected of damaging the unborn child</td>
</tr>
<tr>
<td>Skin Irritation</td>
<td>R20 - Harmful by Inhalation (gas or vapor or dust/mist)</td>
<td>R38 - Irritating to skin</td>
<td>R63 - Possible risk of harm to the unborn child</td>
</tr>
<tr>
<td>Developmental</td>
<td>Developmental Neurotoxicant</td>
<td>Developmental toxicity</td>
<td>Reproductive Toxicity - Female</td>
</tr>
<tr>
<td>Reproductive</td>
<td>Reproductive Toxicity - Female</td>
<td>Reproductive Toxicity - Female</td>
<td>Reproductive Toxicity - Female</td>
</tr>
<tr>
<td>Developmental</td>
<td>Developmental Neurotoxicant</td>
<td>Developmental toxicity</td>
<td>Reproductive Toxicity - Female</td>
</tr>
<tr>
<td>Endocrine</td>
<td>Potential Endocrine Disruptor</td>
<td>Potential Endocrine Disruptor</td>
<td>Class 2 - Hazard to Waters</td>
</tr>
<tr>
<td>Multiple</td>
<td>Toxic to reproduction - Category 1A</td>
<td>Toxic to reproduction - Category 1A</td>
<td>Toxic to reproduction - Category 1A</td>
</tr>
<tr>
<td>Organ Toxicant</td>
<td>R48 - Danger of serious damage to health by prolonged exposure.</td>
<td>R48 - Danger of serious damage to health by prolonged exposure.</td>
<td>R48 - Danger of serious damage to health by prolonged exposure.</td>
</tr>
<tr>
<td>Physical Hazard (reactive)</td>
<td>H225 - Highly flammable liquid and vapour</td>
<td>H225 - Highly flammable liquid and vapour</td>
<td>H225 - Highly flammable liquid and vapour</td>
</tr>
</tbody>
</table>

### Substance Notes:
- Adhesive component

### ((CARBOXYMETHYL)IMINO)BIS(ETHYLENENITRILE)TETRAACETIC ACID, PENTASODIUM SALT

**ID:** 140-01-2

### HAZARDS:

<table>
<thead>
<tr>
<th>Agency(ies) withWarnings:</th>
<th>EU - GHS (H-Statements)</th>
<th>EU - GHS (H-Statements)</th>
<th>EU - GHS (H-Statements)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammalian</td>
<td>H304 - May be fatal if swallowed and enters airways</td>
<td>H315 - Causes skin irritation</td>
<td>H361d - Suspected of damaging the unborn child</td>
</tr>
<tr>
<td>Skin Irritation</td>
<td>R20 - Harmful by Inhalation (gas or vapor or dust/mist)</td>
<td>R38 - Irritating to skin</td>
<td>R63 - Possible risk of harm to the unborn child</td>
</tr>
<tr>
<td>Developmental</td>
<td>Developmental Neurotoxicant</td>
<td>Developmental toxicity</td>
<td>Reproductive Toxicity - Female</td>
</tr>
<tr>
<td>Reproductive</td>
<td>Reproductive Toxicity - Female</td>
<td>Reproductive Toxicity - Female</td>
<td>Reproductive Toxicity - Female</td>
</tr>
<tr>
<td>Developmental</td>
<td>Developmental Neurotoxicant</td>
<td>Developmental toxicity</td>
<td>Reproductive Toxicity - Female</td>
</tr>
<tr>
<td>Endocrine</td>
<td>Potential Endocrine Disruptor</td>
<td>Potential Endocrine Disruptor</td>
<td>Class 2 - Hazard to Waters</td>
</tr>
<tr>
<td>Multiple</td>
<td>Toxic to reproduction - Category 1A</td>
<td>Toxic to reproduction - Category 1A</td>
<td>Toxic to reproduction - Category 1A</td>
</tr>
<tr>
<td>Organ Toxicant</td>
<td>R48 - Danger of serious damage to health by prolonged exposure.</td>
<td>R48 - Danger of serious damage to health by prolonged exposure.</td>
<td>R48 - Danger of serious damage to health by prolonged exposure.</td>
</tr>
<tr>
<td>Physical Hazard (reactive)</td>
<td>H225 - Highly flammable liquid and vapour</td>
<td>H225 - Highly flammable liquid and vapour</td>
<td>H225 - Highly flammable liquid and vapour</td>
</tr>
</tbody>
</table>

### Substance Notes:
- Adhesive component

### SILICA, CHRISTOBALITE (SILICA, CHRISTOBALITE)

**ID:** 14464-46-1

### HAZARDS:

<table>
<thead>
<tr>
<th>Agency(ies) withWarnings:</th>
<th>EU - GHS (H-Statements)</th>
<th>EU - GHS (H-Statements)</th>
<th>EU - GHS (H-Statements)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple</td>
<td>Class 2 - Hazard to Waters</td>
<td>Class 2 - Hazard to Waters</td>
<td>Class 2 - Hazard to Waters</td>
</tr>
</tbody>
</table>

### Substance Notes:
- Adhesive component
### TRIBUTYL PHOSPHATE (TRIBUTYL PHOSPHATE)

<table>
<thead>
<tr>
<th>%: 0.1000 - 1.0000</th>
<th>GS: LT-P1</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Adhesive component</th>
</tr>
</thead>
</table>

**HAZARDS:**
- **MAMMALIAN**
  - EU - R-phrases
    - R22 - Harmful if Swallowed
- **SKIN IRRITATION**
  - EU - R-phrases
    - R38 - Irritating to skin
- **CANCER**
  - EU - R-phrases
    - R40 - Limited Evidence of Carcinogenic Effects
- **SKIN IRRITATION**
  - EU - GHS (H-Statements)
    - H315 - Causes skin irritation
- **CANCER**
  - EU - GHS (H-Statements)
    - H351 - Suspected of causing cancer
- **ENDOCRINE**
  - TEDX - Potential Endocrine Disruptors
    - Potential Endocrine Disruptor
- **MULTIPLE**
  - German FEA - Substances Hazardous to Waters
    - Class 2 - Hazard to Waters
- **CANCER**
  - MAK
    - Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

**SUBSTANCE NOTES:** Adhesive component

### ADHESIVE #4

<table>
<thead>
<tr>
<th>%: 0.3000</th>
<th>HPD URL: N/A</th>
</tr>
</thead>
</table>

**PRODUCT THRESHOLD:** 1000 ppm

**RESIDUALS AND IMPURITIES CONSIDERED:** No

**RESIDUALS AND IMPURITIES NOTES:** No information regarding impurities and residuals was found and/or was available for that material.

**OTHER MATERIAL NOTES:** Adhesive for web-to-web bonding and finger joints. Adhesive used in combination with adhesive #2.

### POLYMERIC MDI (PMDI) (POLYMERIC MDI (PMDI))

<table>
<thead>
<tr>
<th>%: 20.0000 - 30.0000</th>
<th>GS: LT-UNK</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Adhesive component</th>
</tr>
</thead>
</table>

**HAZARDS:**
- **RESPIRATORY**
  - AOEC - Asthmagens
    - Asthagen (G) - generally accepted

**SUBSTANCE NOTES:** Adhesive component
## METHYLENE BISPHENYL DIISOCYANATE (PURE MDI) (METHYLENE BISPHENYL DIISOCYANATE (PURE MDI))

**ID:** 101-68-8

### %: 20.0000 - 30.0000

<table>
<thead>
<tr>
<th>HAZARDS:</th>
<th>AGENCY(IES) WITH WARNINGS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAMMALIAN</td>
<td>EU - R-phrases</td>
</tr>
<tr>
<td>EYE IRRITATION</td>
<td>EU - R-phrases</td>
</tr>
<tr>
<td>SKIN IRRITATION</td>
<td>EU - R-phrases</td>
</tr>
<tr>
<td>CANCER</td>
<td>EU - R-phrases</td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td>EU - R-phrases</td>
</tr>
<tr>
<td>SKIN SENSITIZE</td>
<td>EU - R-phrases</td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td>AOEC - Asthmagens</td>
</tr>
<tr>
<td>RESTRICTED LIST</td>
<td>US EPA - PPT Chemical Action Plans</td>
</tr>
<tr>
<td>SKIN IRRITATION</td>
<td>EU - GHS (H-Statements)</td>
</tr>
<tr>
<td>SKIN SENSITIZE</td>
<td>EU - GHS (H-Statements)</td>
</tr>
<tr>
<td>EYE IRRITATION</td>
<td>EU - GHS (H-Statements)</td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td>EU - GHS (H-Statements)</td>
</tr>
<tr>
<td>CANCER</td>
<td>EU - GHS (H-Statements)</td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td>US EPA - PPT Chemical Action Plans</td>
</tr>
<tr>
<td>CANCER</td>
<td>MAK</td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td>MAK</td>
</tr>
<tr>
<td>ORGAN TOXICANT</td>
<td>EU - R-phrases</td>
</tr>
</tbody>
</table>

### HAZARDS:

- **R20** - Harmful by Inhalation (gas or vapor or dust/mist)
- **R36** - Irritating to eyes
- **R38** - Irritating to skin
- **R40** - Limited Evidence of Carcinogenic Effects
- **R42** - May cause sensitization by inhalation
- **R43** - May cause sensitization by skin contact
- **R48** - Danger of serious damage to health by prolonged exposure
- **H315** - Causes skin irritation
- **H317** - May cause an allergic skin reaction
- **H319** - Causes serious eye irritation
- **H334** - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- **H351** - Suspected of causing cancer
- **H354** - Causes skin irritation
- **H355** - Causes skin irritation
- **H356** - Causes skin irritation
- **H357** - Causes skin irritation
- **H358** - Causes skin irritation
- **H359** - Causes skin irritation

### SUBSTANCE NOTES:

- Adhesive component.
### DIPHENYLMETHANE DIISOCYANATE (MDI) - NON ISOMER SPECIFIC

**ID:** 26447-40-5  
**%:** 10.0000 - 15.0000  
**GS:** LT-UNK  
**RC:** None  
**NANO:** No  
**ROLE:** Adhesive component

**HAZARDS:**

<table>
<thead>
<tr>
<th>Agency(ies) with warnings</th>
<th>EU - R-phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammalian</td>
<td>R20 - Harmful by Inhalation (gas or vapor or dust/mist)</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>R36 - Irritating to eyes</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>R38 - Irritating to skin</td>
</tr>
<tr>
<td>Cancer</td>
<td>R40 - Limited Evidence of Carcinogenic Effects</td>
</tr>
<tr>
<td>Respiratory</td>
<td>R42 - May cause sensitization by inhalation</td>
</tr>
<tr>
<td>Skin sensitize</td>
<td>R43 - May cause sensitization by skin contact</td>
</tr>
<tr>
<td>Restricted list</td>
<td>US EPA - PPT Chemical Action Plans</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>EPA Chemical of Concern - Action Plan published</td>
</tr>
</tbody>
</table>

**Substance Notes:** Adhesive component.

### ADHESIVE #3

**%:** 0.1000  
**HPD URL:** N/A

**PRODUCT THRESHOLD:** 1000 ppm  
**RESIDUALS AND IMPURITIES CONSIDERED:** No

**Residuals and impurities notes:** No information regarding impurities and residuals was found and/or was available for that material.

**Other material notes:** Adhesive for finger joints. Adhesive used in combination with adhesive #2.

### POLYMERIC MDI (PMDI) (POLYMERIC MDI (PMDI))

**ID:** 9016-87-9  
**%:** 20.0000 - 30.0000  
**GS:** LT-UNK  
**RC:** None  
**NANO:** No  
**ROLE:** Adhesive component

**HAZARDS:**

<table>
<thead>
<tr>
<th>Agency(ies) with warnings</th>
<th>EU - R-phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respirotory</td>
<td>AOEC - Asthmagens</td>
</tr>
<tr>
<td>Restricted list</td>
<td>US EPA - PPT Chemical Action Plans</td>
</tr>
<tr>
<td>Respiratory</td>
<td>US EPA - PPT Chemical Action Plans</td>
</tr>
</tbody>
</table>

**Asthmagen (G) - generally accepted**  
**EPA Chemical of Concern - Action Plan published**  
**Inhalation sensitizer causing asthma and lung damage**

**Substance Notes:** Adhesive component.
| Substance Notes: | Adhesive component. |

**METHYLENE BISPHENYL DIISOCYANATE (PURE MDI) (METHYLENE BISPHENYL DIISOCYANATE (PURE MDI))**  
**ID:** 101-68-8  
**%:** 20.0000 - 30.0000  
**GB:** LT-UNK  
**RC:** None  
**NANO:** No  
**ROLE:** Adhesive component  

**HAZARDS:**  
**AGENCY(ES) 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  
**RESPIRATORY**  
AOEC - Asthmagens  
Asthmagen (G) - generally accepted  
**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  
**CANCER**  
MAK  
Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels  
**RESPIRATORY**  
MAK  
Sensitizing Substance Sah - Danger of airway & skin sensitization  
**ORGAN TOXICANT**  
EU - R-phrases  
R48 - Danger of serious damage to health by prolonged exposure.

**SUBSTANCE NOTES:** Adhesive component

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**DIPHENYL METHANE DIISOCYANATE (MDI) - NON ISOMER SPECIFIC (DIPHENYL METHANE DIISOCYANATE (MDI) - NON ISOMER SPECIFIC)**  
**ID:** 26447-40-5  
**%:** 10.0000 - 15.0000  
**GB:** LT-UNK  
**RC:** None  
**NANO:** No  
**ROLE:** Adhesive component

---
HAZARDS:

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

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

ORGAN TOXICANT

EU - R-phrases

R48 - Danger of serious damage to health by prolonged exposure.

SUBSTANCE NOTES: Adhesive component

ADHESIVE #5

%: 0.1000

HPD URL: N/A

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: No information regarding impurities and residuals was found and/or was available for that material.


POLYMERIC MDI (PMDI) (POLYMERIC MDI (PMDI))

%: 50.0000 - 60.0000

GB: LT-UNK

RC: None

NANO: No

ROLE: Adhesive component

HAZARDS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (G) - generally accepted

RESTRICTED LIST

US EPA - PPT Chemical Action Plans

EPA Chemical of Concern - Action Plan published

RESPIRATORY

US EPA - PPT Chemical Action Plans

Inhalation sensitizer causing asthma and lung damage

CANCER

MAK

Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

RESPIRATORY

MAK

Sensitizing Substance Sah - Danger of airway & skin
**METHYLENE BISPHENYL DIISOCYANATE (PURE MDI) (METHYLENE BISPHENYL DIISOCYANATE (PURE MDI))**

**ID:** 101-68-8

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<th>%</th>
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<th>NANO</th>
<th>ROLE</th>
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<td>LT-UNK</td>
<td>None</td>
<td>No</td>
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</table>

**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

- **RESPIRATORY**
  - AOEC - Asthmagens
  - Asthmagen (G) - generally accepted

- **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

- **CANCER**
  - MAK
  - Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

- **RESPIRATORY**
  - MAK
  - Sensitizing Substance Sah - Danger of airway & skin sensitization

- **ORGAN TOXICANT**
  - EU - R-phrases
  - R48 - Danger of serious damage to health by prolonged exposure.

**SUBSTANCE NOTES:** Adhesive component.

**DIPHENYLMETHANE DIISOCYANATE (MDI) - NON ISOMER SPECIFIC (DIPHENYLMETHANE DIISOCYANATE (MDI) - NON ISOMER SPECIFIC)**

**ID:** 26447-40-5

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<th>NANO</th>
<th>ROLE</th>
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<tbody>
<tr>
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<td>None</td>
<td>No</td>
<td>Adhesive component</td>
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**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

**SUBSTANCE NOTES:** Adhesive component.
<table>
<thead>
<tr>
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<th></th>
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</thead>
<tbody>
<tr>
<td>MAMMALIAN</td>
<td>R20 - Harmful by Inhalation (gas or vapor or dust/mist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EYE IRRITATION</td>
<td>R36 - Irritating to eyes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SKIN IRRITATION</td>
<td>R38 - Irritating to skin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CANCER</td>
<td>R40 - Limited Evidence of Carcinogenic Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td>R42 - May cause sensitization by inhalation</td>
<td></td>
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<tr>
<td>SKIN SENSITIZE</td>
<td>R43 - May cause sensitization by skin contact</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SKIN IRRITATION</td>
<td>R36 - Irritating to eyes</td>
<td>H315 - Causes skin irritation</td>
<td></td>
</tr>
<tr>
<td>SKIN SENSITIZE</td>
<td>R38 - Irritating to skin</td>
<td>H317 - May cause an allergic skin reaction</td>
<td></td>
</tr>
<tr>
<td>EYE IRRITATION</td>
<td>R39 - Causes serious eye irritation</td>
<td>H319 - Causes serious eye irritation</td>
<td></td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td>R42 - May cause sensitization by inhalation</td>
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<tr>
<td>CANCER</td>
<td>R40 - Limited Evidence of Carcinogenic Effects</td>
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<td></td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORGAN TOXICANT</td>
<td>R48 - Danger of serious damage to health by prolonged exposure.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Adhesive component.

---

**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**

| CERTIFYING PARTY: | Self-declared |  |
|-------------------|---------------|  |
| APPLICABLE FACILITIES: | All. |  |
| CERTIFICATE URL: |  |  |
| CERTIFICATION AND COMPLIANCE NOTES: |  |  |

**CDPH Standard Method v1.1 - Not tested**

| ISSUE DATE: | 2017-12-15 |  |
| EXPIRY DATE: |  |  |
| CERTIFIER OR LAB: | - |  |

**OTHER**

| CERTIFYING PARTY: | Second Party |  |
| APPLICABLE FACILITIES: | All |  |

**APA Green Verification Report**

| ISSUE DATE: | 2017-01-23 |  |
| EXPIRY DATE: |  |  |
| CERTIFIER OR LAB: | APA - The Engineered Wood Association |  |
FORMALDEHYDE EMISSIONS

APA Product Report - PR-E730 Qualified Wood I-Joists with Low Formaldehyde Emissions

CERTIFYING PARTY: Second Party
APPLICABLE FACILITIES: All.
CERTIFICATION AND COMPLIANCE NOTES: Certificate for low formaldehyde emission level disclosure.

OTHER

NAHB ICC 700 NGBS Green Certified Product

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: All
CERTIFICATION AND COMPLIANCE NOTES: Certificate for points toward NGBS Green Certification to the ICC 700 National Green Building Standard.

LCA

Environmental Product Declaration (EPD) by UL - Industry Generic

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: All.

SUSTAINABLE FORESTRY

FSC Certification - Chain of Custody (COC)

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: All.
CERTIFICATE URL: http://nordic.ca/data/files/datasheet/file/CCL_NordicStructuresFSCCoCcertIN-2016-1ENG.pdf
CERTIFICATION AND COMPLIANCE NOTES: Chantiers Chibougamau Ltée and Nordic Structures are certified for the Single Chain of Custody and Controlled Wood for sustainable forestry practices. Products included in certificate scope are: planks; woodchips and sawdust; Footing, Glued-laminated, Isolated stud, cross-laminated timber, Joist; Oriented Strand Board (OSB); Softwood lumber.

OTHER

ILFI Declare - LBC Compliant - Third Party Verified

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: All.
CERTIFICATE URL: http://nordic.ca/data/files/datasheet/file/NWP-3001_170118.jpeg
CERTIFICATION AND COMPLIANCE NOTES: LBC Compliant Declare certification.
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

There are no residuals and impurities for wood material. No residuals and impurities were considered for adhesive because no residuals and impurities remain in substance in post-manufacture state.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: Nordic Structures
ADDRESS: 504-1100, Avenue des Canadiens-de-Montréal
Montréal Québec H3B 2S2, Canada
WEBSITE: www.nordic.ca

CONTACT NAME: Julie Frappier
TITLE: Director, Technical Services
PHONE: 5148718526
EMAIL: info@nordicewp.com

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
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 Unspecified (insufficient 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)
NoGS 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 Terms

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.