

CLASSIFICATION: 06 17 19

PRODUCT DESCRIPTION: Cross Laminated Timber by Stora Enso is a solid wood construction product consisting of bonded single-layer panels arranged at right angles (90°) to each other. It can measure up to 2.95 m x 16.00 m. CLT solid wood panels are made up of several layers (3, 5, 7, or 8 layers) and are available in different panel thicknesses (maximum thickness 0.4 m). The layers are bonded using formaldehyde-free adhesives. Panels of CLT are used for the construction of houses and apartment buildings, as well as for industrial and commercial buildings. Panels can be used in wall, ceiling and roof constructions.

Section 1: Summary

Nested Method / Material Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
- Basic Method

Threshold Disclosed Per

- Material
- Product

Threshold level

- 100 ppm
- 1,000 ppm
- Per GHS SDS
- Per OSHA MSDS
- Other

Residuals/Impurities

Residuals/Impurities Considered in 0 of 4 Materials

Explanation(s) provided for Residuals/Impurities?

- Yes
- No

All Substances Above the Threshold Indicated Are:

Characterized Yes Ex/SC Yes No

% weight and role not provided for all substances and/ or one or more Special Condition did not follow guidance.

Screened Yes Ex/SC Yes No

One or more substances not screened using Priority Hazard Lists with results disclosed and/ or one or more Special Condition did not follow guidance.

Identified Yes Ex/SC Yes No

One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.

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

TIMBER [SC:WOOD Not Screened WATER BM-4] POLYURETHANE ADHESIVE [AROMATIC POLYISOCYANATE PREPOLYMER Not Screened DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES Not Screened METHYLENE BISPHENYL DIISOCYANATE (PURE MDI) LT-UNK | RES | MUL | SKI | EYE | CAN O-(P-ISOCYANATOBENZYL)PHENYL ISOCYANATE Not Screened HEXAMETHYLENE DIISOCYANATE HOMOPOLYMER (HDI HOMOPOLYMER) LT-P1 PHENYL ISOCYANATE LT-P1 | MUL | RES] EMULSION POLYMER ISOCYANATE ADHESIVE [1,2-BENZISOTHIAZOLIN-3-ONE (BIT) LT-P1 | AQU | SKI | EYE | MUL MIXTURE OF: 5-CHLORO- 2-METHYL-4-ISOTHIAZOLIN- 3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL- 3-ONE [EC NO. 220-239-6] (3:1) Not Screened] EMULSION POLYMER ISOCYANATE HARDENER [ISOCYANIC ACID, POLYMETHYLENEPOLYPHENYLENE ESTER NoGS ISOCYANIC ACID, POLYMETHYLENEPOLYPHENYLENE ESTER, POLYMER WITH ALPHA-METHYL-OMEGAHYDROXPOLY (OXY-1, 2-ETHANEDIYL) LT-UNK]

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

Contents highest concern GreenScreen

Benchmark or List translator Score ... LT-P1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Inventory of the health hazard and warnings gathered from: Safety Data Sheet of LOCTITE HB S049/S079/S089/S109 PURBOND (Henkel), Safety Data Sheet of ADHESIVE 1921 (AkzoNobel), Safety Data Sheet of HARDENER 1993 (AkzoNobel), Safe handling of CLT by Stora Enso (Stora Enso).

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: VOC emissions test (ISO 16000)

LCA: Environmental Product Declaration

Sustainable forestry: FSC Certification - Chain of Custody (COC)

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?

Yes

No

PREPARER: **Self-Prepared**

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2019-07-08

PUBLISHED DATE: 2019-08-19

EXPIRY DATE: 2022-07-08



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 2.1.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-1-standard

TIMBER

%: 98.70 - 99.35

MATERIAL THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: Residuals or Impurities not added

OTHER MATERIAL NOTES: All substances in this material are below the reportable threshold.

SC:WOOD

ID: SC:Bio

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-07-08

%: 87.70 - 90.90

GS: Not Screened

RC: None

NANO: No

ROLE: Main material

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

Hazard Screening not performed

SUBSTANCE NOTES:

Version: SCBioMats/2018-02-23

Category: Tree-based materials

Identifier: Picea abies

This disclosure does not provide information on allergens, hyper-accumulation of metals, production of any toxic substances during normal metabolic activities, pesticides, and other potential hazards or sources of hazards which may be found in certain biological materials.

Wood as material is not believed to be hazardous.

Wood dust may be address hazardous. Wood dust can irritating to eyes, respiratory system and skin, may cause sensitization by inhalation and skin contact, and may cause cancer by inhalation.

WATER

ID: 7732-18-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-07-08

%: 9.10 - 12.30

GS: BM-4

RC: None

NANO: No

ROLE: Bound water in the timber

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Water is bound in the timber (moisture content), moisture content of the timber is depending on relative humidity of air.

MATERIAL THRESHOLD: Per GHS SDS

RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities not considered

OTHER MATERIAL NOTES: 1-component PU adhesive, LOCTITE HB PURBOND (Henkel)

Causes skin irritation

May cause an allergic skin reaction

Causes serious eye irritation

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause respiratory irritation

Suspected of causing cancer

May cause damage to organs through prolonged or repeated exposure

Harmful if inhaled

All substances in this material are below the reportable threshold.

AROMATIC POLYISOCYANATE PREPOLYMERID: **Undisclosed**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-07-08**%: **60.00 - 80.00**GS: **Not Screened**RC: **None**NANO: **No**ROLE: **Substance**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

Hazard Screening not performed

SUBSTANCE NOTES: Skin Irrit. 2 H315 Causes skin irritation

Skin Sens. 1 H317 May cause an allergic skin reaction

Eye Irrit. 2 H319 Causes serious eye irritation

Acute Tox. 4 H332 Harmful if inhaled

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

STOT SE 3 H335 May cause respiratory irritation

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure

DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUESID: **Undisclosed**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-07-08**%: **10.00 - 20.00**GS: **Not Screened**RC: **None**NANO: **No**ROLE: **Substance**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

Hazard Screening not performed

SUBSTANCE NOTES: Carc. 2 H351 Suspected of causing cancer

Acute Tox. 4; Inhalation H332 Harmful if inhaled

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure

Eye Irrit. 2 H319 Causes serious eye irritation

STOT SE 3 H335 May cause respiratory irritation

Skin Irrit. 2 H315 Causes skin irritation

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

Skin Sens. 1 H317 May cause an allergic skin reaction

METHYLENE BISPHENYL DIISOCYANATE (PURE MDI)ID: **101-68-8**

#: **5.00 - 10.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Substance**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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

SUBSTANCE NOTES: **4,4'-methylenediphenyl diisocyanate**

Carc. 2 H351 Suspected of causing cancer

Acute Tox. 4; Inhalation H332 Harmful if inhaled

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure

Eye Irrit. 2 H319 Causes serious eye irritation

STOT SE 3 H335 May cause respiratory irritation

Skin Irrit. 2 H315 Causes skin irritation

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

Skin Sens. 1 H317 May cause an allergic skin reaction

O-(P-ISOCYANATOBENZYL)PHENYL ISOCYANATEID: **Undisclosed**

#: **5.00 - 10.00** GS: **Not Screened** RC: **None** NANO: **No** ROLE: **Substance**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
		Hazard Screening not performed

SUBSTANCE NOTES: **Carc. 2 H351 Suspected of causing cancer**

Acute Tox. 4; Inhalation H332 Harmful if inhaled

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure

Eye Irrit. 2 H319 Causes serious eye irritation

STOT SE 3 H335 May cause respiratory irritation

Skin Irrit. 2 H315 Causes skin irritation

Skin Sens. 1 H317 May cause an allergic skin reaction

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

HEXAMETHYLENE DIISOCYANATE HOMOPOLYMER (HDI HOMOPOLYMER)ID: **28182-81-2**

%: **1.00 - 5.00**GS: **LT-P1**RC: **None**NANO: **No**ROLE: **Substance**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: **Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23****Acute Tox. 4 H332 Harmful if inhaled****STOT SE 3 H335 May cause respiratory irritation****Skin Sens. 1 H317 May cause an allergic skin reaction****PHENYL ISOCYANATE**ID: **103-71-9**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-07-08**%: **0.01 - 0.10**GS: **LT-P1**RC: **None**NANO: **No**ROLE: **Substance**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

RESPIRATORY

MAK

Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: **Flam. Liq. 3 H226 Flammable liquid and vapor****Acute Tox. 4; Oral H302 Harmful if swallowed****Skin Corr. 1C H314 Causes severe skin burns and eye damage****Skin Sens. 1A; Dermal H317 May cause an allergic skin reaction****Acute Tox. 1; Inhalation H330 Fatal if inhaled****Resp. Sens. 1; Inhalation H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled****Aquatic Acute 1 H400 Very toxic to aquatic life****STOT SE 3 H335 May cause respiratory irritation****Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects****EMULSION POLYMER ISOCYANATE ADHESIVE**%: **0.09 - 0.17**MATERIAL THRESHOLD: **Per GHS SDS**RESIDUALS AND IMPURITIES CONSIDERED: **No**RESIDUALS AND IMPURITIES NOTES: **Residuals and impurities not considered**OTHER MATERIAL NOTES: **Water-based dispersion adhesive, ADHESIVE 1921(AkzoNobel)****No known significant effects or critical hazards.****All substances in this material are below the reportable threshold.**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-07-08**

#: **0.00 - 0.05** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Substance**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
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)	H318 - Causes serious eye damage
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: 1,2-benzisothiazol-3(2H)-one content 0.0015-0.05%
 Acute Tox. 4, H302 Harmful if swallowed
 Skin Irrit. 2, H315 Causes skin irritation
 Eye Dam. 1, H318 Causes serious eye damage
 Skin Sens. 1, H317 May cause an allergic skin reaction
 Aquatic Acute 1, H400 Very toxic to aquatic life

MIXTURE OF: 5-CHLORO- 2-METHYL-4-ISOTHIAZOLIN- 3-ONE [EC NO. 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL- 3-ONE [EC NO. 220-239-6] (3:1)

ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-07-08**

#: **0.00** GS: **Not Screened** RC: **None** NANO: **No** ROLE: **Substance**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
Hazard Screening not performed		

SUBSTANCE NOTES: Substance content <0.0015
 Acute Tox. 3, H301 Toxic if swallowed
 Acute Tox. 3, H311 Toxic in contact with skin
 Acute Tox. 3, H331 Toxic if inhaled
 Skin Corr. 1B, H314 Causes severe skin burns and eye damage
 Skin Sens. 1, H317 May cause an allergic skin reaction
 Aquatic Acute 1, H400 Very toxic to aquatic life
 Aquatic Chronic 1, H410 Very toxic to aquatic life with long lasting effects

EMULSION POLYMER ISOCYANATE HARDENER

%: **0.01 - 0.03**

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities not considered

OTHER MATERIAL NOTES: Isocyanate hardener, HARDENER 1993 (AkzoNobel)

- Harmful if inhaled.
- Causes serious eye irritation.
- Causes skin irritation.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause an allergic skin reaction.
- Suspected of causing cancer.
- May cause respiratory irritation.
- May cause damage to organs through prolonged or repeated exposure.

All substances in this material are below the reportable threshold.

ISOCYANIC ACID, POLYMETHYLENEPOLYPHENYLENE ESTER

ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-07-08**

%: **75.00 - 100.00** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Main substance**

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

SUBSTANCE NOTES: Acute Tox. 4, H332 Harmful if inhaled
 Skin Irrit. 2, H315 Causes skin irritation
 Eye Irrit. 2, H319 Causes serious eye irritation
 Resp. Sens. 1, H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 Skin Sens. 1, H317 May cause an allergic skin reaction
 Carc. 2, H351 (inhalation) Suspected of causing cancer if inhaled
 STOT SE 3, H335 May cause respiratory irritation
 STOT RE 2, H373 (inhalation) May cause damage to organs through prolonged or repeated exposure if inhaled

ISOCYANIC ACID, POLYMETHYLENEPOLYPHENYLENE ESTER, POLYMER WITH ALPHA-METHYL-OMEGAHYDROXPOLY (OXY-1, 2-ETHANEDIYL)

ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2019-07-08**

%: **3.00 - 5.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Substance**

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

SUBSTANCE NOTES: Skin Irrit. 2, H315 Causes skin irritation
 Eye Irrit. 2, H319 Causes serious eye irritation
 Resp. Sens. 1, H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 Carc. 2, H351 (oral) Suspected of causing cancer if swallowed
 STOT SE 3, H335 May cause respiratory irritation
 STOT RE 2, H373 (inhalation) May cause damage to organs through prolonged or repeated exposure if inhaled

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

VOC emissions test (ISO 16000)

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2016-**

EXPIRY DATE:

CERTIFIER OR LAB:

APPLICABLE FACILITIES: **Stora Enso Wood Products /
Stora Enso WP Bad St. Leonhard GmbH
Wisperndorf 4, AT-9462, Bad St. Leonhard,
Austria Stora Enso Wood Products GmbH /
Ybbs Mill Bahnhofstrasse 31, AT-3370, Ybbs,
Austria**

02-04

Holzforschung Austria

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: **Measurements are done via ISO 16000-3-6-9-11 standards. All tested CLT samples comply with the German, the Belgian and the Lithuanian emission requirements for building products. Referring to the French classification system the tested products fulfilled the criteria for a class A+ -labeling.**

LCA

Environmental Product Declaration

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2017-**

EXPIRY DATE: **2022-**

CERTIFIER OR LAB: **Vahanen**

APPLICABLE FACILITIES: **Stora Enso Wood Products /
Stora Enso WP Bad St. Leonhard GmbH
Wisperndorf 4, AT-9462, Bad St. Leonhard,
Austria Stora Enso Wood Products GmbH /
Ybbs Mill Bahnhofstrasse 31, AT-3370, Ybbs,
Austria**

06-01

05-31

Environment Oy

CERTIFICATE URL: <https://www.storaenso.com/-/media/Documents/Download-center/Certificates/Wood-products-approvals-and-certificates/EPD---CLT-by-Stora-Enso-2017.pdf>

CERTIFICATION AND COMPLIANCE NOTES:

SUSTAINABLE FORESTRY

FSC Certification - Chain of Custody (COC)

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2015-**

EXPIRY DATE: **2020-**

CERTIFIER OR LAB: **DNV GL**

APPLICABLE FACILITIES: **All**

CERTIFICATE URL: https://www.storaenso.com/-/media/Documents/Download-center/Certificates/Chain-of-custody/FSC/FSC_WP_English.pdf

04-16

04-15

CERTIFICATION AND COMPLIANCE NOTES:

SUSTAINABLE FORESTRY

PEFC Certificate - Chain of Custody (COC)

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2018-**

EXPIRY DATE: **2020-**

CERTIFIER OR LAB: **DNV GL**

APPLICABLE FACILITIES: **All**

01-22

04-03

CERTIFICATE URL: https://www.storaenso.com/-/media/Documents/Download-center/Certificates/Chain-of-custody/PEFC/PEFC_WP_English.pdf

CERTIFICATION AND COMPLIANCE NOTES:

FORMALDEHYDE EMISSIONS

Formaldehyde emissions (ISO 16000-3)

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2016-**

EXPIRY DATE:

CERTIFIER OR LAB:

APPLICABLE FACILITIES: **Stora Enso Wood Products /**

02-04

Holzforschung Austria

**Stora Enso WP Bad St. Leonhard GmbH
Wisperndorf 4, AT-9462, Bad St. Leonhard,
Austria Stora Enso Wood Products GmbH /
Ybbs Mill Bahnhofstrasse 31, AT-3370, Ybbs,
Austria**

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: **Measurements are done via ISO 16000-3 standard. All tested CLT samples comply with the German, the Belgian and the Lithuanian emission requirements for building products. Referring to the French classification system the tested products fulfilled the criteria for a class A+ -labeling.**

+ 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

Scope of the HPD is the CLT which consist of timber, PU adhesive and EPI adhesive. Health hazard and warnings gathered from: Safety Data Sheet of LOCTITE HB S049/S079/S089/S109 PURBOND (Henkel), Safety Data Sheet of ADHESIVE 1921 (AkzoNobel), Safety Data Sheet of HARDENER 1993 (AkzoNobel), Safe handling of CLT by Stora Enso (Stora Enso). All Section 2 information taken from the safety data sheets is relating totally to the components in the fluid form and not in the cured state. In the cured state, the Hazard Warnings of the components are not applicable direct to the final product.



MANUFACTURER INFORMATION

MANUFACTURER: **Stora Enso**

ADDRESS: **Kanavaranta 1**

Helsinki - FI-00160, Finland

WEBSITE: <https://www.storaenso.com/>

CONTACT NAME: **Lauri Linkosalmi**

TITLE: **Senior Manager**

PHONE: **+358405270803**

EMAIL: lauri.linkosalmi@storaenso.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.