



## *dassoXTR Material Safety Data Sheet*

January 01, 2018

dassoXTR Fused Bamboo decking is made from (by weight):

- 1) Natural Bamboo – approx. 87%
- 2) Dynea Phenolic Resin – approx. 13%
- 3) And if prefinished – Woca Exterior Oil < 1%

This includes all profiles made for usage as Decking, RainClad Siding, Lumber and/or Panels.

Attached you will find Material Safety Data Sheets (MSDS) for the following:

- 1) dassoXTR Decking/Siding/Components
  - a. MSDS
- 2) From Dynea:
  - a. Product Technical Data Sheet
  - b. MSDS
- 3) From Trip Trap/WOCA:
  - a. Product Technical Data Sheet
  - b. MSDS

Should you need more information please contact dassoXTR at 1.971.272.1686

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**Product Identification**

Product	Manufacturing Location
<b>Unfinished dassoXTR Decking, Siding &amp; Components</b>	<b>Hangzhou China.</b>
<b>Prefinished dassoXTR Decking, Siding &amp; Components</b>	<b>Hangzhou China.</b>

Synonyms: Fused Bamboo Decking, Siding, Components

**Hazardous Ingredients/Identity Information**

Name	CAS#	Percent	Agency	Exposure Limits	Comments
<b>Natural Bamboo #1</b>	None	85-87%	OSHA OSHA ACGIH ACGIH	PEL-TWA 15 mg/m3 PEL-TWA 5 mg/m3 TLV-TWA 3 mg/m3 TLV-STEL 10 mg/m3	Total dust Respirable dust fraction Respirable dust fraction Inhalable particles
<b>Dynea Phenol-formaldehyde #2</b>	None	12 – 15%	OSHA OSHA ACGIH	PEL-TWA 0.75 ppm PEL-STEL 2 ppm TLV- Ceiling 0.3 ppm	Free gaseous formaldehyde Free gaseous formaldehyde Free gaseous formaldehyde
<b>WOCA Exterior Oil #3</b>	None	0-1%	OSHA ACGIH	PEL-TWA None TLV-TWA None	None None

- Bamboo is a member of the grass family which has distinct anatomical differences from that of wood. Therefore, bamboo would be regulated as an organic dust in a category known as "Particulates Not Otherwise Regulated" (PNOR), or Nuisance Dust by OSHA. The ACGIH classifies dust or particulate in this category as "Particulates Not otherwise Specified".
- Dynea is the supplier of Phenolic Resin & attached is their MSDS. XTR Product contains no free formaldehyde.
- For pre-finished XTR decking, siding, or porch flooring only which was factory finished by dasso. WOCA brand Exterior Oil is the supplier & attached is their MSDS

**Hazard Identification**

**Appearance and Odor:**

A matrix of brown colored interlocking bamboo fibers bonded with phenol-formaldehyde resin having a slightly aromatic odor.

**Primary Health Hazards:**

The primary health hazards posed by these products are thought to be due to exposure to dust generated when machining this product (e.g. sanding, sawing, routing and or planing)..

**Primary Route(s) of Exposure:**

( ) Ingestion: (X) Skin: Dust (X) Inhalation: Dust

**Medical Conditions Generally Aggravated by Exposure:** Dust may aggravate preexisting respiratory conditions or allergies.

**Chronic Health Hazards:**

Bamboo dust has not been associated with any long term health effects including cancer in animals as well as humans.

**Carcinogenicity Listing:**

( ) NTP: Not Listed ( ) IARC Monographs: Not Listed;  
( ) OSHA Regulated: Not Listed

**Emergency & First Aid Procedures**

**Ingestion:**

Not applicable under normal use.

object. Flush with water to remove dust particles. Get medical help if irritation persists.

**Eye Contact:**

Dust may cause mechanical irritation. Treat dust in eye as foreign

**Skin Contact:** Not applicable for this product in its purchased form, frequent handling of dust or product in its manufactured form may cause some minor drying of the skin, mechanical

abrasion, cuts or slivers. Wash hands after handling and obtain medical help if rash or irritation occurs.

**Skin Absorption:** Not known to occur under normal use.

**Inhalation:** Not applicable for this product in its purchased or breathing difficulty occurs.

form. Bamboo dust may cause obstruction in the nasal passages, resulting in dryness of nose, dry cough and sneezing. Remove to fresh air. Get medical help if persistent irritation, severe coughing

**Fire & Explosion Data**

**Flash Point (Method Used):** NAP

**Flammable Limits:** LEL: NAP UEL: NAP

**Extinguishing Media:** Water, carbon dioxide, sand or dry chemical.

**Auto ignition Temperature:** Variable [typically 400-500°F (204-260°C)]

**Special Firefighting Procedures:** None.

**Unusual Fire and Explosion Hazards:** None

**Accidental Release Data**

**Steps to be Taken In Case Material Is Released or Spilled:** Not applicable for product in purchased form. Dust generated from sawing, sanding, drilling, or routing of products may be vacuumed or shoveled for recovery or disposal. Avoid dusty conditions and provide good ventilation. A NIOSH-approved dust respirator should be worn if dust exposure limits are exceeded.

**Handling & Storage**

**Precautions to be Taken In Handling and Storage:** No special handling precautions are required for products in purchased form. These products may release very small quantities of formaldehyde in gaseous form. Under foreseeable conditions of use, these products release less than 0.020 ppm in standard large chamber test conditions. Keep in cool, dry place away from open flame. Store in well ventilated area.

**Exposure Control Measures**

**Personal Protective Equipment:**

**RESPIRATORY PROTECTION** -- Not applicable for product in purchased form. A NIOSH-approved dust respirator is recommended when allowable exposure limits are exceeded.

**PROTECTIVE GLOVES** -- Not required. However, cloth, canvas, or leather gloves are recommended to minimize potential mechanical irritation or slivers from handling and machining product.

**EYE PROTECTION** -- Not applicable for product in purchased form. Goggles or safety glasses are recommended when machining this product.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT** -- Not applicable for product in purchased form. Outer garments may be desirable in extremely dusty areas.

**WORK/HYGIENE PRACTICES** -- Follow good hygienic and housekeeping practices. Clean up areas where wood dust settles to avoid excessive accumulation of this combustible material. Minimize clean-up with compressed air or other practices that generate high airborne-dust concentrations.

**Ventilation:**

**LOCAL EXHAUST** - Provide local exhaust as needed so that exposure limits are met.

**MECHANICAL(GENERAL)** - Provide general ventilation in processing and storage areas so that exposure limits are met.

**SPECIAL** - None.

**OTHER** - None.

**Physical Chemical Properties**

**Boiling Point (@ 760 mm Hg):** NAP

**Vapor Density (air = 1; 1 atm):** NAP

**Evaporation Rate (Butyl acetate = 1):** NAP

**% Volatile by Volume [@ 70°F (21°C)]:** 0

**Oil-water distribution coefficient:** NAP

**Vapor Pressure (mm Hg):** NAP

**Specific Gravity (H<sub>2</sub>O = 1):** 1.18 g/ml

**Solubility in Water (% by weight):** <0.1

**PH:** NAP

**Odor threshold:** ND

**Stability & Reactivity**

**Stability:** ( ) Unstable (x) Stable

**Conditions to Avoid:** Avoid open flame. Product may ignite at temperatures in excess of 400°F (204°C).

**Incompatibility (Materials to Avoid):** Avoid contact with oxidizing agents.

**Hazardous Decomposition or By-Products:** Thermal decomposition products include carbon monoxide, carbon dioxide, aliphatic aldehydes, rosin acids, terpenes, and polycyclic aromatic hydrocarbons.

**Hazardous Polymerization:** ( ) May occur (x) Will not occur

**Sensitivity to Mechanical Impact:** NAP

**Sensitivity to Static Discharge:** NAP

#### Toxicological Information

None available for product in purchased form.

Formaldehyde OSHA Hazard rating = 3 for local and systemic acute and chronic exposures; highly toxic. Irritation studies: human skin, 150 ug/3 days, intermittent exposure produced mild results; human eye, 1 ppm/6 minutes, produced mild results. Toxicity studies: human inhalation TCLO of 8 ppm reported but response not specified; human inhalation TCLO of 17/mg/m<sup>3</sup> for 30 minutes produced eye and pulmonary results; human inhalation TCLO of 300ug/m<sup>3</sup> produced nose and CNS results; LC50 (rat, inhalation) = 1,000 mg/m<sup>3</sup>/30 minutes; LC50 (mice, inhalation) = 400mg/m<sup>3</sup>/2 hours.

Sources: Lewis, R.J., Sr. 1992 *Sax's Dangerous Properties of Industrial Materials*, Eighth Edition, Van Nostrand Reinhold, NY.; *NIOSH Registry of Toxic Effects of Chemical Substances (RTECS)*, 1983-1984 Cumulative Supplement to 1981-1982 Edition and May 1995; *OSHA Regulated Hazardous Substances*, Government Institutes, Inc., February 1990.

#### Ecological Information

No information available at this time.

#### Disposal Consideration

**Waste Disposal Method:** If disposed of or discarded in its purchased form, incineration is preferable. Dry land disposal is acceptable in most states. It is, however, the user's responsibility to determine at the time of disposal whether your product meets RCRA criteria for hazardous waste. Follow applicable federal, state, and local regulations.

#### Transport Information

Not regulated as a hazardous material by the U.S. Department of Transportation. Not listed as a hazardous material in Canadian Transportation of Dangerous Goods (TDG) regulations.

#### Regulatory Information

**TSCA:** All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

**Chemicals listed:** Formaldehyde CAS# 50-00-0

**DSL:** All ingredients are listed or are not required to be listed under the Canadian Domestic Substance List.

**Chemicals listed:** Formaldehyde CAS# 50-00-0

**WHMIS Classification:** Not a controlled product

#### STATE RIGHT-TO KNOW

- **California Prop 65** –This product contains formaldehyde which depending on temperature and humidity may be emitted from the product. Formaldehyde is a compound that is known in the State of California to cause cancer. Dasso XTR LLC has evaluated formaldehyde emission rates from its products (typical range of 0–0.01 ppm) and found these rates to be below the no significant risk level that would require product warnings.
- **New Jersey** - Not listed
- **Pennsylvania** –This product contains formaldehyde which depending on temperature and humidity may be emitted from the product. When cut or otherwise machined, the product may emit wood dust, a listed substance in Pennsylvania

#### • SARA 313 Information

This product contains formaldehyde at a concentration that subjects the chemical to SARA Title III Section 313 supplier notification requirements. However, the emissions characteristics and concentrations have been measure using ASTM E1333 test methods (typical average concentration of 0.015 ppm equates to a yearly emission rate of 0.01 lbs/yr). This emission rate falls well below the Threshold Planning Requirement for Formaldehyde of 500 lbs.

• **SARA 311/312 Hazard Category**

This product has been reviewed according to the EPA "Hazard Categories" promulgated under SARA Title III Sections 311 and 312 and is considered, under applicable definitions, to meet the following categories:

- An immediate (acute) health hazard – yes – dust only
- A delayed (chronic) health hazard - no
- A fire hazard - no
- A reactivity hazard - no
- A sudden release hazard – no

**Additional Information**

**Date Prepared:** 05/1/13

**Prepared By:** Hongzhen Liu

**User's Responsibility:**

This information is offered in good faith. It is believed to be accurate and has been compiled from sources believed to be reliable. It is offered for your consideration, investigation, and verification. Dasso XTR makes no warranty of any kind, expressed or implied, concerning the accuracy or completeness of the information and data herein. Furthermore, Dasso XTR will not be liable for claims relating to any party's use of, or reliance on information and data contained herein, regardless of whether it is claimed that the information and data are inaccurate, incomplete, or otherwise misleading. It is the responsibility of the user to comply with local, state, and/or federal regulations concerning the storage, use, processing, and disposal of the product or subsequently generated waste. It is the responsibility of the user to ensure that this MSDS is the most current version.

**Definition of Common Terms:**

**ACGIH** American Conference of Governmental Industrial Hygienists  
**C** Ceiling Limit  
**CAS#** Chemical Abstracts System Number  
**DSL** Canadian Domestic Substance List  
**EPA** U.S. Environmental Protection Agency  
**IARC** International Agency for Research on Cancer  
**LCLo** Lowest concentration in air resulting in death  
**LC50** Concentration in air resulting in death to 50% of experimental animals  
  
**LDLO** Lowest dose resulting in death  
**LD50** Administered dose resulting in death to 50% of experimental animals  
**MSHA** Mining Safety and Health Administration  
**ND** Not Determined

**NAP** Not Applicable  
**NAV** Not Available  
**NIOSH** National Institute for Occupational Safety and Health  
**NTP** National Toxicology Program  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**PPM** Parts of gas or vapor per million parts of air  
**RCRA** Resource Conservation and Recovery Act  
**STEL** Short-Term Exposure Limit (15 minutes)  
**TDG** Canadian Transportation of Dangerous Goods  
**TCLO** Lowest concentration in air resulting in a toxic effect  
**TDLO** Lowest dose resulting in a toxic effect  
**TLV** Threshold Limit Value  
**TSCA** Toxic Substance Control Act  
**TWA** Time-Weighted Average (8 hours)  
**WHMIS** Workplace Hazardous Materials Information System