

# Safety Data Sheet (SDS)




## SECTION 1: Identification

<b>Product Name:</b>	Kerto LVL (Kerto LVL S-beam, Q-panel, Qp-panel, T-stud, L-panel)
<b>Product Uses:</b>	Building material – structural, industrial or decorative.
<b>Company Name:</b>	Metsä Wood
<b>Address:</b>	P.O. Box 50, 02020 Metsä Revontulenpuisto 2C, 02100 Espoo, Finland
<b>Emergency Phone:</b>	+1 203-939-8703 Operating Hours: 8:00am – 4:00pm EST/EDT
<b>Business Phone:</b>	+1 203-939-8703
<b>Website:</b>	<a href="http://www.metsawood.com">www.metsawood.com</a>
<b>Date Released to Public:</b>	7/12/2022
<b>Revised Date:</b>	Not Yet Revised.

## SECTION 2: Hazards Identification

**Signal Word:** DANGER

**NOTE:** These products are not hazardous in the form in which it is shipped by the manufacturer but may become hazardous as the result of downstream activities (e.g. cutting, sanding) which creates small particles resulting in the potential hazards as described below.

Classification	Hazard Statement(s)	Pictogram(s)
Carcinogen Category 1A (H350)*	May cause nasopharyngeal cancer and/or cancer of the nasal cavities and paranasal sinuses by inhalation	
Skin Irritation Category 2 (H315)	Causes skin irritation	
Specific Target Organ Toxicity - Single Exposure (STOT) Category 3 (H335)	May cause respiratory irritation	
Eye Irritation Category 2B (H320)	Causes eye irritation	None
Combustible Dust (OSHA Defined Hazard)	If converted to small particles during further processing, handling, or by other means, may form combustible dust concentrations in air.	None

No label elements related to the manufactured product

## Precautionary Statements:

P203:	Obtain, read and follow all safety instructions before use.
P210:	Keep away from sparks, flame or other heat sources.
P243:	Take precautionary measures against static discharge.
P261:	Avoid breathing dust.
P280:	Wear protective gloves, clothing, and eye protection.
P284:	In case of inadequate ventilation wear an approved respirator suitable for conditions of use.

## Response Statements:

P304+P340:	If inhaled and breathing becomes difficult, remove person to fresh air and keep comfortable for breathing.
P319:	Get medical help if you feel unwell (from inhalation or ingestion of wood dust).
P352:	If skin irritation occurs, wash with plenty of soap and water.
P333+P317:	If skin irritation persists or rash occurs (from wood dust), get medical help.
P305+P351+P338:	If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so.
P337+P317:	If eye irritation persists, get medical help.
P381+P391:	In case of spill (of wood dust), eliminate all ignitions sources and collect spillage.

## Other Hazards

Ingredients of Unknown Acute Toxicity (>1%): Not Applicable

NFPA Rating (0-4) – Health=1, Flammability=1, Reactivity=0

HMIS Rating (0-4) – Health=\*2, Flammability=1, Physical Hazard=0

\* Chronic Health Hazard

## SECTION 3: Composition/Information on Ingredients

### Substance

Ingredients of Kerto LVL	CAS Number	Weight Percentage
Wood (wood dust, softwood, or hardwood)	N/A	90% - 97%
Resin Solids: Polymeric Phenol-Formaldehyde (reacted) <sup>1</sup>	N/A	3% - 5%
Resin Solids: Melamine urea formaldehyde resin (reacted) <sup>1</sup>	N/A	<1%
WeatherGuard <sup>®2</sup>	N/A	<1%

<sup>1</sup> Resins are fully cured after hot pressing. They are inert and non-hazardous thermo-set plastics.

<sup>2</sup> Confidential mix: Hydrophobic agent suitable in contact with food.

## SECTION 4: First Aid Measures

### Description of First Aid Measures when Dealing with Wood Dust

<b>General:</b>	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.
<b>Inhalation:</b>	Using proper respiratory protection, move the exposed person to fresh air at once. Encourage exposed person to cough, spit out, and blow nose to remove dust. Call a poison center, physician, or emergency medical service if symptoms persist.
<b>Skin Contact:</b>	Obtain medical attention if rash develops/persists or irritation persists.
<b>Eye Contact:</b>	Avoid touching or rubbing eyes to avoid further irritation or injury. Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if symptoms persist.
<b>Ingestion:</b>	Rinse mouth. Do not induce vomiting. Call a poison center, physician, or emergency medical service if feeling unwell from dust ingestion.



## Most Important Symptoms and Effects Both Acute and Delayed: Wood Dust

<b>General:</b>	May cause skin irritation. May cause respiratory irritation. May cause cancer.
<b>Inhalation:</b>	For particulates and dust, irritation of the respiratory tract and the other mucous membranes.
<b>Skin Contact:</b>	In severe conditions, may cause redness, pain, swelling, itching, dryness, and dermatitis. Prolonged contact with large amounts of dust may cause mechanical irritation.
<b>Eye Contact:</b>	Prolonged contact with large amounts of dust may cause mechanical irritation.
<b>Ingestion:</b>	Ingestion is not expected to be harmful.
<b>Chronic Symptoms:</b>	Prolonged inhalation of wood dust may cause cancer of the respiratory system and lung disease.

## Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed to wood dust from Kerto LVL and concerned about resulting symptoms, get medical advice and attention.

## SECTION 5: Firefighting Measures

### Extinguishing Media

**Suitable Extinguishing Media:** Water, carbon dioxide, foam, fire blanket, and sand.

### Special Hazards Arising From the Substance

<b>Fire Hazard:</b>	Combustible dust
<b>Explosion Hazard:</b>	Dust explosion hazard in air
<b>Reactivity:</b>	Hazardous reactions will not occur under normal conditions.

### Advice for Firefighters

<b>Precautionary Measures Fire:</b>	Exercise caution when fighting any fire.
<b>Firefighting Instructions:</b>	Use water spray or fog for Extinguishing a fire. Take care to avoid causing dust clouds. Use water spray and extinguishers as far away from fire as possible and as gently as possible.
<b>Protection During Firefighting:</b>	Do not enter fire area without proper protective equipment, including respiratory protection.
<b>Hazardous Combustion Products:</b>	Under fire conditions this material may produce hazardous carbon dioxide (CO <sub>2</sub> ), carbon monoxide (CO), various low molecular weight hydrocarbons, and smoke.
<b>Other Information:</b>	Risk of dust explosion. Flash fire or deflagration hazard present depending on the moisture content. Explosion possible in enclosed, pressurized area or container where dust particles are accumulated greater than 40 grams of dust per cubic meter of air (Minimum Explosible Concentration, 1.13 grams per cubic foot of air). See sections 6 and 7 for proper facility maintenance with respect to wood dust. Reference NFPA 652 "Standard on the Fundamentals of Combustible Dust".



## SECTION 6: Accidental Release Measures

### Steps to be Taken in Case Substance Is Released or Spilled: Wood Dust

<b>Cleanup Measures:</b>	Turn off machinery that may be an ignition source and other ignition sources in the area of the spill. Sweep or vacuum up for recovery and disposal. Be cautious when using vacuum for cleanup to not create sparking (plug in, bad chord, etc)
<b>Precautionary Measures:</b>	Avoid creating dusty conditions whenever feasible. Lower explosible limit of wood dust (amount of dust in the air needed to ignite) is 40 g per cubic meter. One is near the lower explosible limit when the amount of dust in the air is thick enough to limit visibility to approximately 5 ft.  Maintain good housekeeping to avoid accumulation of wood dust on exposed surfaces. Use approved filtering face piece respirator ("dust mask") and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort.
<b>Section 8:</b>	Exposure Controls/Personal Protection.
<b>Section 13:</b>	Disposal Considerations.

## SECTION 7: Handling and Storage

### Precautions to be Taken in Handling and Storage of Wood Dust

Dried wood dust may pose a combustible dust hazard. Keep away from ignition sources. Avoid eye contact. Avoid prolonged or repeated contact with skin. Avoid prolonged or repeated breathing of wood dust. Store in well-ventilated, cool, dry place away from open flame. Ensure proper ventilation systems are in place to reduce the amount of wood dust accumulation. See Section 8 for further guidance on Ventilation.

### Specific End Use(s)

No use is specified.

## SECTION 8: Exposure Controls/Personal Protection

### Exposure Limits and Guidelines: Wood Dust

Ingredient(s)	Standard	Agency	Exposure Limit(s) <sup>B</sup>	Comments
Wood (wood dust, softwood, and hardwood)	Regulation <sup>A</sup>	OSHA	PEL-TWA 15 mg/m <sup>3</sup>	Total Dust
		OSHA	PEL-TWA 5 mg/m <sup>3</sup>	Respirable Dust Fraction (PNOR) <sup>B</sup>
		ACGIH	TLV-TWA 1 mg/m <sup>3</sup>	Inhalable fraction
	Guideline	NIOSH, CDC, HHS	REL 1 mg/m <sup>3</sup>	N/A

A Note from 15th report on Carcinogens about OSHA Regulations on Wood Dust "This PEL may not reflect the most recent scientific evidence and may not adequately protect worker health".

B PEL = Permissible Exposure Limit, TWA = Time-Weighted Average, TLV = Threshold Limit Value, REL = Recommended Exposure Limit, PNOR = Particles Not Otherwise Regulated.



## Exposure Controls

### Appropriate Engineering Controls

<b>Rinse Stations:</b>	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
<b>Ventilation:</b>	Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents, an explosion suppression system, or an oxygen-deficient environment.

### Personal Protective Equipment

<b>Hand Protection:</b>	Wear protective gloves made of cloth, canvas, or leather for best protection.
<b>Skin and Body Protection:</b>	Clothing that covers arms and legs.
<b>Eye Protection:</b>	Tightly fitting goggles/safety glasses.
<b>Respiratory Protection:</b>	Use NIOSH-approved dust mask if dust has the potential to become airborne.
<b>Other Information:</b>	When using, do not eat, drink or smoke. Clean areas where dust settles and minimize generating airborne dust concentrations.

## SECTION 9: Physical and Chemical Properties

### Information on Basic Physical and Chemical Properties of Kerto LVL

<b>Physical State:</b>	Solid	<b>Upper Flammable Limit:</b>	N/A
<b>Appearance:</b>	N/A	<b>Vapor Pressure:</b>	N/A
<b>Odor:</b>	slight tannin smell	<b>Relative Vapor Density at 20°C:</b>	N/A
<b>Odor Threshold:</b>	N/A	<b>Relative Density:</b>	510 kg/m <sup>3</sup> (S-beam, Q-panel, Qp-beam products), 440 kg/m <sup>3</sup> (L-panel, T-stud products)
<b>pH:</b>	N/A	<b>Specific Gravity:</b>	0.44 - 0.51
<b>Evaporation Rate:</b>	N/A	<b>Solubility:</b>	N/A
<b>Melting Point:</b>	N/A	<b>Partition Coefficient: N-Octanol/Water:</b>	N/A
<b>Freezing Point:</b>	N/A	<b>Viscosity:</b>	N/A
<b>Boiling Point:</b>	N/A	<b>Explosion Data: Sensitivity to Mechanical impact</b>	Not expected to present an explosion hazard due to mechanical impact.
<b>Flash Point:</b>	N/A	<b>Explosion Data: Sensitivity to Static Discharge</b>	Static discharge could act as an ignition source.
<b>Auto ignition Temperature:</b>	Variable (400° - 500°F, or 204°-260°C)		
<b>Decomposition Temperature:</b>	N/A		
<b>Flammability (solid, gas):</b>	N/A		
<b>Lower Flammable Limit (Wood Dust):</b>	40 g (40,000 mg) of dust per cubic meter (m <sup>3</sup> )		



## SECTION 10: Stability and Reactivity

<b>Reactivity:</b>	Hazardous reactions will not occur under normal conditions.
<b>Chemical Stability:</b>	Chemically Stable.
<b>Possibility of Hazardous Reactions:</b>	<u>Kerto LVL</u> : Hazardous reaction will not occur under normal conditions.  <u>Wood Dust</u> : Explosion possible when accumulation of dust occurs. Keep concentrations of dust in the air below "Lower Flammable Limit (Dust)". User has reached Lower Flammable Limit if the thickness of wood dust in the air limits their vision to 5 ft.
<b>Conditions to Avoid:</b>	Sparks, heat, open flame and other sources of ignition.
<b>Incompatible Materials:</b>	Avoid oxidizing agents and drying oils
<b>Hazardous Decomposition Products:</b>	Spontaneous and rapid hazardous decomposition will not occur.
<b>Sensitivity to Static Discharge:</b>	Airborne wood dust may be ignited by a static discharge depending on airborne concentrations, particle size and moisture content

## SECTION 11: Toxicological Information

Toxicological Effect	Possible Results of Toxicological Effect
<b>Acute Toxicity:</b>	Not classified.
<b>LD50 and LC50 Data:</b>	Not available.
<b>Skin Corrosion/Irritation:</b>	Wood Dust: May cause skin irritation.
<b>Serious Eye Damage/Irritation:</b>	Not classified.
<b>Respiratory or Skin Sensitization:</b>	Not classified.
<b>Germ Cell Mutagenicity:</b>	Not classified.
<b>Teratogenicity:</b>	Not classified.
<b>Carcinogenicity:</b>	<u>Wood Dust</u> : Wood Dust Carcinogenicity Listing: Wood dust is listed by NTP known to be a Human Carcinogen (15th Report), IARC Monographs: Wood dust, Group 1 - IARC Group 1: Carcinogenic to humans; sufficient evidence of carcinogenicity. This classification is primarily based on studies showing an association between occupational exposure to wood dust and adenocarcinoma of the nasal cavities and paranasal sinuses. IARC did not find sufficient evidence of an association between occupational exposure to wood dust and cancers of the hypopharynx, oropharynx, lymphatic and hematopoietic systems, lungs, stomach, colon or rectum.  <u>Formaldehyde</u> : Formaldehyde is listed by IARC as Carcinogenic to Humans (Group 1) for sufficient evidence that formaldehyde causes nasopharyngeal, a rare cancer in humans, and "limited evidence" for cancer of nasal cavity and sinuses, and a "strong but not sufficient evidence" for leukemia. NTP included formaldehyde in the annual report on carcinogens. OSHA regulated formaldehyde as a potential carcinogen. The concentration in formaldehyde emissions of the product are well below dangerous exposure limits.
<b>Specific Target Organ Toxicity (Repeated Exposure):</b>	Wood Dust: May cause damage to organs (respiratory system) through prolonged or repeated inhalation.
<b>Reproductive Toxicity:</b>	Not classified.
<b>Specific Target Organ Toxicity (Single Exposure):</b>	Wood Dust: May cause respiratory irritation.
<b>Aspiration Hazard:</b>	Not classified.



<b>Symptoms/Injuries After Inhalation:</b>	For particulates and dust: Irritation of the respiratory tract and the other mucous membranes.
<b>Symptoms/Injuries After Skin Contact:</b>	In severe exposure conditions, May cause redness, pain, swelling, itching, dryness, and dermatitis. Prolonged contact with large amounts of dust may cause mechanical irritation.
<b>Symptoms/Injuries After Eye Contact:</b>	Prolonged contact with large amounts of dust may cause mechanical irritation.
<b>Symptoms/Injuries After Ingestion:</b>	Wood Dust: Ingestion is not expected to be harmful.
<b>Chronic Symptoms:</b>	Prolonged inhalation of wood dust may cause cancer of the respiratory system and lung disease.

## Likely Routes of Exposure

Skin, Eyes, and Inhalation are the most likely. Ingestion possible.

## Information on Toxicological Effects – Ingredient(s)

Not Available.

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## SECTION 12: Ecological Information

### Toxicity

Wood Dust – Not Available.

### Persistence and Degradability

Wood Dust – Expected to be biodegradable.

### Bioaccumulative Potential

Wood Dust – Not available.

### Mobility in Soil

Not Available.

### Other Adverse Effects

Other Information: Avoid unnecessary release of wood dust to the environment.

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## SECTION 13: Disposal Considerations

### Waste Disposal Recommendations

Dispose of contents/container in accordance with local, regional, national, and international regulations. Dry land disposal or incineration is acceptable in most areas. It is, however, the user's responsibility to determine at the time of disposal whether your waste meets any jurisdictional criteria. Note that wood dust may pose a combustible dust hazard.

### Additional Information

Wood Dust – Expected to be biodegradable.

### Ecology – Waste Materials

Avoid unnecessary release of wood dust to the environment.



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## SECTION 14: Transport Information

### In Accordance with DOT

Not regulated for transport.

### In Accordance with IMDG

Not regulated for transport.

### In Accordance with IATA

Not regulated for transport.

### In Accordance with TDG

Not regulated for transport.

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## SECTION 15: Regulatory Information

Agency/Standard	Description												
<b>OSHA:</b>	Wood products are not hazardous under the criteria of the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, wood dust generated by sawing, sanding or machining these products is considered hazardous.												
<b>SARA 313:</b>	To the best of our knowledge, these products emit formaldehyde at de minimus concentrations (<0.1%) and is not subjected to the SARA Title III Section 313 supplier notification requirements.												
<b>Sara311/312 Hazard Category:</b>	<p>These products have been reviewed according the EPA "Hazard Categories" promulgated under SARA Title III, Sections 311 and 312 and is considered, under applicable definitions, to meet the following categories:</p> <table><tbody><tr><td>An immediate (acute) health hazard:</td><td>Yes</td></tr><tr><td>A delayed (chronic) health hazard:</td><td>Yes</td></tr><tr><td>A corrosive hazard:</td><td>No</td></tr><tr><td>A fire hazard:</td><td>No</td></tr><tr><td>A reactivity hazard:</td><td>No</td></tr><tr><td>A sudden release hazard:</td><td>No</td></tr></tbody></table>	An immediate (acute) health hazard:	Yes	A delayed (chronic) health hazard:	Yes	A corrosive hazard:	No	A fire hazard:	No	A reactivity hazard:	No	A sudden release hazard:	No
An immediate (acute) health hazard:	Yes												
A delayed (chronic) health hazard:	Yes												
A corrosive hazard:	No												
A fire hazard:	No												
A reactivity hazard:	No												
A sudden release hazard:	No												

State Right-To-Know	Description
<b>California Proposition 65</b>	<p>This product can expose you to wood dust which is known to the State of California to cause cancer. Drilling, sawing, sanding or machining wood products can expose you to wood dust. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.</p> <p>For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> and <a href="http://www.P65Warnings.ca.gov/wood">www.P65Warnings.ca.gov/wood</a>.</p> <p>To the best of our knowledge, these products contain formaldehyde at de minimus concentrations (&lt;0.1%) and is not subjected to the SARA Title III Section 313 supplier notification requirements.</p>
<b>Pennsylvania</b>	<p>When cut or otherwise machined, the product may emit wood dust. Wood dust appear on Pennsylvania's Appendix A, Hazardous Substance List.</p>





## SECTION 16: Other Information, including date of preparation or last revision

<b>Preparation Date:</b>	6/24/2022
<b>Revisions Made to this Document:</b>	Not Yet Revised
<b>Party Responsible for the Preparation of This Document:</b>	Metsä Wood

### Possible Terms Used in This Document

Abbreviation	Description/Definition
ACGIH®	American Conference of Governmental Industrial Hygienists
C	Ceiling Limit
CAS#	Chemical Abstracts System Number
DOT	U. S. Department of Transportation
DSL	Domestic Substance List
EC#	Identifying Number Assigned to Chemicals Contained in the European Inventory of Existing Chemical Substances (EINECS)
EC <sub>50</sub>	Effective Concentration That Inhibits the Endpoint to 50% of Control Population
EPA	U.S. Environmental Protection Agency
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
HMIS	(Canada)Hazardous Materials Identification System
HNOC	Hazards Not Otherwise Classified
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC <sub>50</sub>	Concentration in Air Resulting in Death To 50% of Experimental Animals
LCLo	Lowest Concentration in Air Resulting in Death
LD <sub>50</sub>	Administered Dose Resulting in Death to 50% of Experimental Animals
LDLo	Lowest Dose Resulting in Death
LEL	Lower Explosive Limit
LFL	Lower Flammable Limit

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. It is the responsibility of the user to use the product as intended and to know the content of this SDS prior to its use.

