

MSDS 1 (2)

Metsä Wood March 2017

MATERIAL SAFETY DATA SHEET

KERTO® LVL

The following data applies to sanded and unsanded

 $\textbf{Kerto-S}, \, \textbf{Kerto-Qp}, \, \textbf{Kerto-T} \, \, \textbf{and} \, \, \textbf{Kerto-L} \, \, \textbf{laminated veneer lumber} \, \, (\textbf{LVL})$

glued with phenol formaldehyde adhesive.

CHEMICAL COMPOSITION

Standard Kerto LVL is manufactured from conifer (spruce) veneers bonded with a phenol formaldehyde adhesive. Melamine formaldehyde or melamine urea formaldehyde adhesive is used in the surface veneer scarf-joints on one side of the product.

Composition of Kerto LVL is as follows:

Wood: Cellulose Hemi cellulose Lignin Terpene
Pitch Polyphenol Sugar Fatty acids

Ash (calcium, potassium and magnesium in the form of carbonates, phosphates

and sulphates)

Glue (LVL): Phenol formaldehyde adhesive (hardened)

Glue (surface

veneer scarf-joint): Melamine formaldehyde or melamine urea formaldehyde adhesive (hardened)

Heavy metals, boron or halogenated compounds are not intentionally added into the products.

PRODUCT USES

Kerto LVL products are used in various construction solutions in new buildings as well as in renovation and repair.

OCCUPATIONAL EXPOSURE

Good industrial hygiene and safety practice shall be followed. If Kerto LVL is sanded, cut or machined in confined work spaces, it will be necessary to provide adequate ventilation and dust extraction to meet the environmental limits set for free formaldehyde and wood dust concentrations by authorities. Gloves are recommended to be worn to protect hands from sharp edges and wood splinters. Safety goggles are recommended to protect eyes during sanding, cutting and machining.

FORMALDEHYDE EMISSION

Kerto LVL products meet the requirements of standard **EN 14374 / Class E1** when determined in accordance with standards **ENV 717-1**.

DETAILS OF KNOWN SYNERGISTIC REACTIONS

None known.



MSDS 2 (2)

Metsä Wood March 2017

RECOMMENDED PRECAUTIONS FOR HANDLING AND STORAGE

Kerto LVL should be stored flat, above ground in dry and well-ventilated conditions. The base under the panel stack should be level and durable with adequate support. Products should be protected from contact with water and direct sunlight. Also very dry and hot storage areas should be avoided.

If temporarily stored outside or in a humid area, LVL packages should be covered with a waterproof covering and possible strappings should be removed.

The weight restrictions on handling equipment must be strictly observed when moving pallets or packs. Handling shall be done according to good industrial hygiene and safety practice. Plastic wrapping in packages can easily be opened with a knife. When handling individual boards it is recommended to wear gloves to protect hands from sharp edges and wood splinters.

FIRE AND EXPLOSION HAZARDS

There is no risk of explosion with Kerto LVL in its solid form, but processors should avoid the build-up of fine dust particles to prevent dust explosion in the event of fire. In the event of fire, precautions normal to wood products should be taken.

HAZARD THAT RESEARCH OR USE EXPERIENCE HAS INDICATED MAY ARISE

None known.

WASTE HANDLING

Disposal of Kerto LVL products can be carried out by several methods. It should be noted that the instructions for disposal may vary in different countries depending on the current legislation.

Recycling of Kerto LVL by utilizing it in other applications is always preferred.

Kerto LVL products can be safely burnt when the combustion temperature is at least 850°C and correct combustion conditions are maintained (combustion air and gases are well mixed, the retention time of the combustion gases in the furnace is over 2 seconds, and the residual oxygen content of the flue gases over 6 %). The flue gases are identical to the gases produced in burning untreated wood.

Kerto LVL products can also be composted but the panels have to be chipped and the long duration of the composting process has to be taken into consideration. In addition, the products can be taken to a refuse dump, although Kerto LVL products will degrade very slowly.

Kerto LVL products do not contain anything classified as hazardous waste.

CONTACT DETAILS

 Metsä Wood
 Tel. +358 10 4656 499

 P.O. Box 24
 Fax. +358 10 4656 222

 FI-08101 Lohja
 www.metsawood.com

Emergency telephone number (in Finland) 112

Poison Information Centre (in Finland), open 24 h daily Tel. 09 471 977 or 09 4711