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R&D SCHAUMAN

@002



Schauman Wood Oy
Environment office

MSDS FOR BETOFILM

1 (6)

9.12.1996
E.Simonen/lr

MATERIAL SAFETY DATA SHEET FOR BETOFILM

Product identification

Film faced combi plywood phenol-formaldehyde bonded

Synonyms

Finnish phenolic film faced plywood, exterior

Trade name

Betofilm

Description

This panel product contains birch veneer on each side and
alternates inner veneers of conifer and birch.

All veneers in plywood above are bonded together using phenol-
formaldehyde resin. There is a phenol film coating on both sides of the
panel.

Potential airborne releases

This product may release small quantities of formaldehyde
(CAS No. 50-00-0) in gaseous form. Emissions decrease through time
as the panels age. Manual or mechanical cutting or abrasion processes
performed on the product can result in generation of dust from
plywood and its coating.

PHYSICAL DATA

Boiling point

Not applicable

Specific gravity (H2O = 1)

< 1

Vapor density

Not applicable

% volatiles by volume

0

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MSDS FOR BETOFILM

2 (5)

9.12.1996
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Melting point Not applicable
 Vapor pressure Not applicable
 Solubility in H₂O (% by weight) < 0.1 %
 Evaporation rate Not applicable
 pH Not applicable
 Appearance Dark brown phenol film with text BETOFILM printed on it

FIRE AND EXPLOSION DATA

Flash point Not applicable
 Autoignition temperature Not available (will depend upon duration of exposure to heat source and other variables)
 Explosive limits in air See below under "Unusual fire and explosion hazards"
 Extinguishing media Water, carbon dioxide, sand
 Special fire fighting procedures None
 Unusual fire and explosion hazards

Sawing, sanding or machining can produce wood dust as a by-product which may present an explosion hazard if a dust cloud contacts an ignition source. An airborne concentration of 40 grams of dust per cubic meter of air is often used as the LEL for wood dust.

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REACTIVITY DATA

Conditions contributing to instability

Stable under normal conditions

Incompatibility

Avoid contact with oxidizing agents. Avoid open flame.
Product may ignite in excess of 400 degrees F.

Hazardous decomposition products

Thermal and/or thermal oxidative decomposition can produce irritating toxic fumes and gases, including carbon monoxide, aldehydes, and polynuclear aromatic compounds.

Hazardous polymerization

Not applicable

HEALTH EFFECTS INFORMATION

Exposure limits:

Formaldehyde OSHA PEL - TWA 0.75 ppm
OSHA PEL - STEL 2 ppm
ACGIH TLV - CEILING 0.3 ppm

Wood dust OSHA 1989 PEL - TWA 5 mg/m3
OSHA 1989 PEL - STEL 10 mg/m3

Formaldehyde emission

Allowed value 0.1 ppm.
Measured value with this product 0.01 ppm.
(according to standard EN 120)

Eye contact

The dust from plywood can cause irritation and inflammation.

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Skin contact

Various species of wood dust may evoke allergic contact dermatitis in sensitized individuals.

Burning

According to the ISO/DIS 5560 test the toxicity index of fire effluents was small, but there are many compounds in smoke gases which can cause irritation to eyes, nose and throat.

Ingestion

Not likely to occur.

Inhalation:

Wood dust

May cause nasal dryness, irritation and obstruction. Coughing, wheezing and sneezing, sinusitis and prolonged colds have also been reported.

Wood dust, depending on species*, may cause dermatitis on prolonged, repetitive contact; may cause respiratory sensitization and/or irritation. IARC classifies wood dust as a carcinogen to humans (Group 1). This classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. IARC did not find sufficient evidence to associate cancer of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust.

* The risk of nasal cancer was the subject of a joint Nordic study. No case caused by a Finnish tree species (birch, spruce) was found in Finland. Hansberg & al. Nasal cancer and occupational exposures. Scand. j. work environ. health 9(1983)208-13.

MICROFILM

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REO SCHAUMAN

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MSDS FOR BETOFILM

5 (6)

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PRECAUTIONS, SAFE HANDLING

In higher temperatures (>212 degrees Fahrenheit) there may build-up noxious gases. Then provide adequate ventilation.

Wood dust Avoid dusty conditions and provide good ventilation.

GENERALLY APPLICABLE CONTROL MEASURES

Ventilation

Provide adequate general and local exhaust ventilation to keep airborne contaminant concentration levels below the OSHA PELs.

Personal protective equipment

Wear goggles or safety glasses when manufacturing or machining the product. Wear NIOSH/MSHA approved respirator always when machining the product. Other protective equipment such as gloves and outer garment should be used when machining the product.

EMERGENCY AND FIRST AID PROCEDURES

Eyes

Flush eyes with large amounts of water. Remove to fresh air. If irritation persists, get medical attention.

Skin

Wash affected areas with soap and water. Get medical advice if rash or persistent irritation or dermatitis occurs.

Inhalation

Remove to fresh air. Get medical advice if persistent irritation, severe coughing or breathing difficulty occurs.

Ingestion

Not applicable

MSDS-2003-09-12

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