TECHNICAL BULLETIN

STRUCTURAL BOARD ASSOCIATION

Representing The OSB Industry

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GENERIC OSB MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

Product Name and Synonym.....Oriented strandboard (OSB), waferboard (WFB), Proprietary names

Note: Proprietary products may have slightly different ingredients or characteristics. Check with manufacturer.

HAZARDOUS INGREDIENTS

Principal Hazardous Component (Chemical & Common Name)	Units	OSB/WFB	ACGIH TLV		OSHA PEL	
			TWA	STEL	TWA	STEL
Aspen poplar or	%	95	n/a	n/a	n/a	n/a
Southern yellow pine	%	95	n/a	n/a	n/a	n/a
Softwood dust (pine)	mg/m^3		5	10	15[2]	n/a
Hardwood dust (beech or oak)	mg/m^3		1	none	15[2]	n/a
Resin solids -phenol formaldehyde	mg/m^3	1-3	10	none	15[2]	none
Paraffin wax (fume)	mg/m^3	1-2	2	none	2	none
Free formaldehyde	ppm	0.01	0.3	2	0.75	2

Notes: 1. Values for State PEL (or Province OEL) may be more restrictive.
2. Respirable fraction is limited to 5 mg/m^3.
3. Resin solids limitations are for loose dust, however, respirable portion for resin solids and loose dust is limited to 5mg/m^3.

PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point (degrees centigrades) .....n/a
Specific gravity (water = 1.0) .....0.5 - 0.7
Percent volatile (by volume) 0
Evaporation rate .....n/a
Vapour pressure (mm of Hg).....n/a
Vapour density .....n/a
Solubility in Water 0.2%
Appearance and Odour - brown panel with slight aromatic odour (aspen), stronger when wet

FIRE AND EXPLOSION DATA

Flashpoint .....n/a
Flammable Limits .....Lower n/a Upper n/a
Fire Extinguishing Media .....water, CO_2, sand
Auto Ignition Temperature .....400-500°F (200-260°C)

Normal Fire Fighting Procedures Equipment - determined by surrounding fire. Use a water spray to wet down panels and any dust to prevent ignition. Remove burned material to open area after fire is extinguished.

Usual Fire or Explosion Hazard - fine panel dust in an airborne concentration greater than 40 gms/m3 of air may explode if the dust cloud contacts a source of ignition.

REACTIVITY DATA

It is a stable product, however excess moisture conditions and open flame should be avoided. It is incompatible with oxidizing agents and drying oil. Good housekeeping procedures and routine disposal of panel dust is suggested. When burned it releases CO, polycyclic aromatic hydrocarbons, CO_2, aldehydes and other toxic fumes and gases.

Hazardous polymerization will not occur.

HEALTH HAZARDS

Sign and Symptoms of Exposure

1. Acute Overexposure: Panel dust may be a mechanical irritant to eyes. Excessive concentration may cause deposit in nasal passages resulting in rhinorrhea, dry cough, wheezing, sinusitis.
2. Chronic Overexposure: Wood dust, depending on species, may cause dermatitis on prolonged, repetitive contact; may cause respiratory sensitization and/or irritation. Prolonged

(continued on reverse)

exposure to wood dust has been reported by some observers to be associated with nasal cancer. IARC classifies wood dust as a carcinogen to humans (Group 1). This classification is based on IARC's evaluation of increased risk in the occurrence of adeno-carcinomas of the nasal cavities and paranasal sinuses associated with the exposure to wood dust. IARC did not find sufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust.

Note: These products are manufactured using a phenol-formaldehyde thermoset resin. Maximum indoor formaldehyde levels associated with freshly manufactured panels are similar to outdoor back ground levels in urban areas (less than 0.1 ppm; and levels decrease through time as the panels age).

Medical Conditions Generally Aggravated by Exposure:
Individuals with predisposing respiratory disease - asthma, chronic bronchitis - may have difficulty working around airborne particulates including dust.

Product Listed as Carcinogen or Potential Carcinogen:

National Toxicology Program	Yes	X No
IARC Monographs	Yes	X No
OSHA	Yes	X No

Formaldehyde has been listed as a carcinogen or potential carcinogen by NTP, IARC, OSHA, and ACGIH. The free formaldehyde content of the panel is less than 0.04 per cent.

SPECIAL PROTECTION INFORMATION

Respiratory Protection: NIOSH/OSHA approved dust respirator under dusty conditions.

Ventilation: Local exhaust: Panel dust should be collected at source.

Protective Gloves: Leather

Eye Protection: Safety glasses.

Other Protective Clothing or Equipment:
Follow good hygiene and housekeeping practices. Clean up areas where dust settles to avoid excessive accumulation of this combustible material. Minimize blowdown or other practices which generate high dust concentrations.

EMERGENCY AND FIRST AID PROCEDURES:

1. ***Inhalation:*** Remove to fresh air. If persistent irritation, severe coughing, breathing difficulties or rash occur, seek medical advice. (Primary route of exposure is inhalation).
2. ***Eyes:*** Panel dust may mechanically irritate the eye, resulting in redness or watering. Flush with water to remove dust particles. If irritation persists, seek medical attention.
3. ***Skin:*** Various species of wood dust can elicit allergic contact dermatitis in sensitized individuals after repetitive contact. If a rash, or persistent irritation or dermatitis occur, seek medical advice before working where panel dust is present.
4. ***Ingestion:*** n/a

SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be taken in Handling and Storage: No special handling precautions are required. Panels are combustible. Keep in cool, dry place away from open flame and other sources of ignition.

Other Precautions: If this product is used in a process which generates dust levels in excess of the allowable exposure limit(s) for wood dust, a NIOSH/OSHA approved dust respirator and goggles should be worn.
Due to the explosive potential of wood dust when suspended in air, precautions should be taken to prevent sparks or other ignition sources in ventilation systems. Use of totally enclosed motors is recommended (or may be warranted) if process generates excessive levels of wood dust.

Steps to be taken in Case Material is Released or Spilled:
Not applicable for product in purchased form. Panel dust may be vacuumed or shovelled for recovery or disposal. Avoid dusting conditions. Provide good ventilation where dusting is possible. Use (NIOSH/OSHA approved) dust respirator and goggles where ventilation is not possible.

Waste Disposal Methods: If disposed or discarded in its purchased form, incineration is preferable. Dry land disposal may be acceptable. It is however, the user's responsibility to determine at the time of disposal whether your product meets Federal, state or local regulations.

GLOSSARY

n/a	not applicable
ACGIH	American Conference of Governmental Industrial Hygienists
TLV	Threshold Limit Value
TWA	8 hour time weighted Average
F	Fahrenheit
NIOSH	National Institute for Occupational Safety and Health (US)
OSHA	Occupationel Safety and Health Administration (US)
STEL	Short Term Exposure Limit (15 minutes)
IARC	International Agency for Research on Cancer
PEL	Permissible Exposure Limit
mg/m^3	milligrams per cubic meter of air
ppm	parts per million in air
OEL	Occupational Exposure Limit