

## MATERIAL SAFETY DATA SHEET

ARC Bamboo

Edition: 2017

# GENERAL DATA

Boards manufactured using compressed bamboo strands with Phenol resin; into a high density, reconstructed bamboo panel.

### HAZARDOUS INGREDIENTS

Identification 1: Formaldehyde

ACGIH Limit = 1 ppm 8hrs TWA OSHA Limit: = 1 ppm 8hrs TWA Exposure Limits: 2ppm STEL

2ppm STEL

Formaldehyde Emissions: <0.021 mg/m²/hr (as per ASTM D5116)

**Identification 2:** Fine residue

OSHA PEL-TWA 5mg/m3 Exposure Limits:

OSHA PEL-STEL 10mg/m3

Potential Airborne Releases: Manual or mechanical cutting or abrasion processes performed on the product can result in the generation of fine

## PHYSICAL CHARACTERISTICS

Boiling Point: N/A

Density: 1200kg/m3

Vapour Pressure: N/A Melting Point: N/A Vapour Density: N/A Reactivity in Water: N/A Evaporation Rate: N/A

Appearance: Varies by colour and style

# FIRE AND EXPLOSION DATA

Flash Point: N/A

Fire Classification: CHF 5.4kw/m<sup>2</sup> | Smoke 15%min (as per AS9239)

The product listed in this MSDS is not an explosion hazard. Sawing, sanding or machining could result in the by-Explosive Limits in Air:

product fine residue. Fine residue may present a strong to severe explosion hazard if a dust cloud contacts an

Water Fog | Carbon Dioxide | Foam | Dry Chemical | Sand Fire Extinguishing Media:

Special Firefighting Procedures:



### HEALTH HAZARD DATA

#### 1.1 Formaldehyde Vapour / Signs and Symptoms of Exposure:

Acute: May cause temporary irritation of skin, eyes or respiratory systems. May cause sensitization in susceptible individuals.

Chronic: Numerous epidemiological studies have failed to demonstrate a relationship between Formaldehyde exposure and

nasal cancer or pulmonary diseases such as emphysema or lung cancer. UAREP concluded that there was no "convincing evidence" that Formaldehyde exposure causes cancer in humans. Rats exposed to 14 ppm of Formaldehyde for 24 months in a laboratory developed nasal cancer. Exposure of 6 ppm did not result in statistically significant levels. The NCI epidemiology study of 26,000 workers found little evidence linking Formaldehyde

exposure to cancer.

Formaldehyde is classified by OSHA, NTP and IARC as a probable or potential carcinogen.

#### 1.2 Medical Conditions Aggravated by Formaldehyde Exposure

Respiratory conditions or allergies.

#### 1.3 Emergency First Aid Procedures

Inhalation: Dust mask or dust extraction should be used to minimise inhalation of fine residue.

Eyes: Remove to fresh air

Skin: Remove to fresh air

Ingestion: N/A

If irritation of other symptoms persists, consult a physician.

#### 2.1 Fine residue

Eye Contact: Fine residue can cause mechanical irritation

Skin Contact: Fine residue may evoke allergies in sensitive individuals

Ingestion: Not likely to occur

Burning: Per ISO/DIS 5660 tests; the toxicity index of fire effluents was small but there are many compounds in smoke oases

which can cause irritation to eyes, nose and throat.

Inhalation of fine residue: Fine residue may cause nasal dryness, irritation and obstruction

Coughing, wheezing and sneezing: Sinusitis and prolonged colds have also been reported

Depending on species, fine residue may cause dermatitis. Prolonged and/or repetitive contact may cause respiratory sensitizations/irritation. IARC classifies fine residue as a carcinogen to humans (Group 1). This classification is based primarily on IARC's evaluation of increased risk in the occurrence of Aden carcinomas of the nasal cavities and para nasal sinuses associated with the exposure to fine residue. IARC did not find sufficient evidence to associate cancer of the oropharynx, hypo pharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to fine residue.

Fine residue classification from ACGIH: Hardwoods and Softwoods (non-allergenic); "A4 irritation, mucostasis" except Birch and Oak.

### 2.2 Emergency and First Aid Procedures

Eye Contact: Flush eyes with large amounts of water. Enable fresh air to reach affected area. If irritation persists, get medical

attention.

Skin Contact: Wash affected areas with soap and water. If irritation persists, get medical attention.

Inhalation: Remove to fresh air. If irritation persists or severe coughing/breathing difficulties occur, get medical attention.

Ingestion: N/A

## REACTIVITY DATA

Conditions Contributing to Instability: Stable under normal conditions.

Incompatibility: Avoid contact with oxidizing agents and strong acids. Avoid open flame.

Hazardous Decomposition Products: Thermal and/or thermal-oxidative decompositions can produce irritation and toxic fumes and gases; including carbon

monoxide, aldehydes and organic acids.

Hazardous Polymerization: N/A



## PRECAUTIONS / SAFE HANDLING

Wear goggles or safety glasses when manufacturing or machining the product. Wear NIOSH/MSHA approved respirator when allowable exposure limits may be exceeded. Other protective equipment such as gloves and outer Personal Protective Equipment:

garments may be needed depending on dust conditions. All cutting equipment should be fitted with dust extraction and fine filtrations, to control fine residue.

Waste Disposal Method: Incinerate or landfill in accordance with local, state and federal regulations.

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