

Material Safety Data Sheet

TJI Joist



Weyerhaeuser Company
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Statement of Hazardous Nature: In its intact state this product is not classified as a hazardous substance according to the criteria of Worksafe Australia.

Wood dust that may be generated by sawing or otherwise processing this product is classified as a hazardous substance according to the criteria of Worksafe Australia.

Important Notice: This Material Safety Data Sheet (MSDS) is issued by Trus Joist, A Weyerhaeuser Business, in accordance with Worksafe Australia guidelines. As such, the information contained within this document must not be altered, deleted or added to. Trus Joist will issue an updated MSDS when there is a change in product specifications and/or Worksafe regulations or guidelines. Trus Joist will not accept any responsibility for any changes made to its MSDS in content by any other person or organization.

1. Product Identification

Product Name	TJI [®] Joist	
Other Synonyms	"I-beam", "I-joist"	
Manufacturer's Product code	TJI [®] /70, TJI [®] /90	
UN Number	None allocated	
Dangerous Goods Class	None allocated	
Subsidiary Risk	None allocated	
Hazchem Code	None allocated	
Poisons Schedule	None allocated	
Major Recommended Use	TJI [®] -joists are predominantly used in floor and roof systems of residential construction	
Physical Description/ Properties:		
Appearance	Wood flange and plywood web material is bonded together using an adhesive to create a wooden I-joist. Once the manufacturing process is complete, adhesives used to manufacture the plywood (Phenol-formaldehyde) and the I-joist (MDI) are fully cured. No detectable levels of isocyanate or formaldehyde are present in the product as purchased.	
Odour	TJI [®] joists have no distinctive odour. When sawn, TJI [®] joists may have the odour of the wood species used in the raw materials.	
Boiling Point (°C)	Not applicable	
Melting Point (°C)	Not applicable	
Vapour Pressure	Not applicable	
Flash Point	Not applicable	
Flammability limits in Air	Not flammable under normal conditions of use. See "Fire and Explosion Hazard" section	
Specific Gravity (water =1)	Variable; depends on wood species and moisture	
pH (1% aqueous solution)	Not Applicable	
Auto Ignition Temperature	Variable; typically 204–260° C	
Ingredients:		
	Substance/Chemical	Proportion by weight
	Wood	90-99
	Resin Solids: Phenol formaldehyde ¹	1-9
	EPI - Emulsion polymer isocyanate (MDI) adhesive ²	<2

¹ This product contains less than 0.05% free formaldehyde when manufactured.

² This ingredient contains synthetic rubber emulsion and isocyanate. During the manufacturing process, the raw material is converted to urea and a urethane polymer. No detectable levels of isocyanate (MDI) are present in the product as purchased.

2. Health Hazard Information

Health Effects

TJI® joists in their manufactured form are not classified as hazardous. The primary health hazard posed by these products is thought to be due to exposure to wood dust created by sawing or otherwise machining the product. Handling TJI® joists may result in splinters. See "Precautions for Use" section for methods to mitigate health effects.

The following health effects are based on current research and knowledge of wood dust created from non-treated wood fiber

Acute Health Effects

Swallowed:	Swallowing wood dust may result in abdominal discomfort
Eye:	Wood dust may be irritating to the eyes causing discomfort and redness
Skin:	Wood dust may irritate skin. Allergic contact dermatitis may occur
Inhaled:	Wood dust may irritate the throat and lungs. Asthma may occur

Chronic Effects:

Repeated inhalation of elevated levels of wood dust, depending on the species, may cause allergic contact dermatitis and respiratory sensitization. Prolonged exposure to wood dust has been reported by some observers to be associated with nasal cancer. However, if the work practices noted in this MSDS are followed, and exposure to airborne dusts is kept low, no acute or chronic health effects are anticipated.

Wood dust is classified as a Group 1 carcinogen by IARC. Group 1 carcinogens are carcinogenic to humans, or there is 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 oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon, or rectum.

First Aid

Ingested	Not applicable under normal use.
Eye contact	Wood dust may cause mechanical irritation. Treat dust in eye as foreign object. Flush with water to remove dust particles. Get medical help if irritation persists.
Skin contact	In sensitized individuals, wood dust of certain species can elicit allergic contact dermatitis, as well as mechanical irritation resulting in erythema and hives. Get medical help if rash, irritation, or dermatitis persists.
Inhaled	Wood dust may cause unpleasant obstruction in the nasal passages, resulting in dryness of nose, dry cough, sneezing, or headaches. Remove to fresh air. Get medical help if persistent irritation, severe coughing, or breathing difficulty occurs.
Advice to Doctor	Treat symptomatically

3. Precautions For Use

Exposure Standard	<ul style="list-style-type: none">• 5 mg/m³ time weighted average (TWA) measured as inspirable particulate• Wood Dust (softwood)• 10 mg/m³ short term exposure limit (STEL)• sensitizing to skin and respiratory tract
Engineering controls	All work with TJI® joists must be carried out in such a way as to minimize exposure to wood dust. Under factory conditions, sawing, drilling, or sanding of TJI® joists should be done with equipment fitted with local exhaust ventilation devices capable of removing dust at the source. Measures should be taken to eliminate the build up of static electricity
Respiratory Protection	Avoid breathing sawdust from TJI® joists. Wear a P1 or P2 respirator suitable for particulate and conforming with Australian Standards AS/NZS 1715 and AS/NZS 1716 when exposed to dust. These standards should be followed in the selection, fit testing, use, and storage and maintenance of the respirators.
Skin Protection	Wear Industrial gloves (AS 2161), comfortable clothing and boots. Long-sleeved shirts and long trousers are recommended to prevent skin irritation.
Eye Protection	Non-fogging goggles or safety glasses (AS/NZS 1337) should be worn if there is a risk of wood dust getting into eyes.
Flammability	Not flammable under normal conditions of use, but is combustible and will sustain a fire.

4. Safe Handling Information

Precautions to Be Taken in Handling and Storage:	<ul style="list-style-type: none">No special handling precautions are required for products in purchased form. Avoid repeated or prolonged breathing of wood dust.The phenol formaldehyde adhesive used to manufacture plywood may release very small quantities of formaldehyde in gaseous form. Under foreseeable conditions of use, these products release less than 0.050 ppm in standard large chamber test conditions.MDI adhesive releases no formaldehyde. Store in well-ventilated, cool, dry place away from open flame.
Spills and Disposal	<ul style="list-style-type: none">If disposed of or discarded in its purchased form, incineration is preferable. Dry land disposal is acceptable alternate means of disposal. It is, however, the user's responsibility to follow applicable regulations.Wood dust generated from machining TJI® joists may be vacuumed or shoveled for recovery or disposal. Avoid dusty conditions and provide good ventilation. Use NIOSH-approved respirator and goggles where ventilation is not possible and the allowable exposure limits may be exceeded.
Fire and Explosion Hazard:	
Ignitability Index	14
Spread of Flame Index	7
Heat Evolved Index	7
Smoke Developed Index	3 - Burning or smoldering TJI® joists can generate carbon dioxide and other pyrolysis products typical of burning wood. Depending on moisture content and more importantly, particle diameter, wood dust may explode in the presence of an ignition source. An airborne dust concentration of 40 g/m ³ (40,000 mg/m ³) is often used as the LEL for wood dusts. Use water or dry chemical fire extinguishers or sand to extinguish fires
Smoking	Smoking should be restricted in storage and work areas

5. Contact Information

Trus Joist – A Weyerhaeuser business

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6. Additional Information

Date Prepared: 11/13/01

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Prepared By: Corporate Environment Health and Safety

User's Responsibility: The information contained in this Material Safety Data Sheet is based on the experience of occupational health and safety professionals and comes from sources believed to be accurate or otherwise technically correct. It is the user's responsibility to determine whether this information is suitable for their applications and to follow safety precautions as necessary. The user has the responsibility to make sure that this sheet is the most up-to-date issue.

Definition of Acronyms:

CAS#	Chemical Abstracts Service Registry Number
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short-Term Exposure Limit (15 minutes)
TLV	Threshold Limit Value
TWA	Time-Weighted Average (8 hours)