

MATERIAL SAFETY DATA SHEET

FreeForm/Particleboard

1 Product Identification

Manufacturer Name and Address:

Collins Products LLC

2 Hazardous Ingredient & Identity Information

	Wt %	CAS Registry #
Ligno-cellulosic Materials	90 - 93	None

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

Name / CAS #	Exposure Limits	
Wood Dust/ Ligno-cellulosic Fiber CAS # - None	OSHA PEL-TWA	5 mg/m ³ (a)
	OSHA PEL-TWA	15 mg/m ³ (b)
	ACGIH TLV-TWA	1 mg/m ³ (a)
	ACGIH TLV-STEL	10 mg/m ³ (c)
	ACGIH TLV-TWA	1 mg/m ³ (d)
	OSHA PEL-TWA	2.5 mg/m ³ (e)

- (a) respirable dust
 (b) softwood or hardwood total dust
 (c) softwood total dust
 (d) selected hardwood total dust (beech, oak, others)
 (e) Western red cedar total dust
 (f) paraffin wax fumes

3 Physical/Chemical Characteristics

BOILING POINT (1 atm):	N/A
VAPOR PRESSURE (mm Hg):	N/A
VAPOR DENSITY (Air = 1; 1 atm):	N/A
SPECIFIC GRAVITY (H ₂ O = 1):	0.40-0.90
MELTING POINT:	N/A
EVAPORATION RATE (Butyl Acetate = 1):	N/A
SOLUBILITY IN WATER (% by Weight):	Insoluble
% VOLATILE BY VOLUME:	0

Appearance and Odor:

A matrix of light brown or buff-colored interlocking particles having a slightly aromatic odor. The wood components of this product may consist of pine, fir, hemlock, cedar and spruce.

4 Fire and Explosion Hazard Data

FLASH POINT (°F or °C)	N/A
FLAMMABLE LIMITS:	
LEL:	See below under "Unusual Fire and Explosion Hazards"
UEL:	N/A
EXTINGUISHING MEDIA:	Water, carbon dioxide, sand or dry chemical.
AUTOIGNITION TEMPERATURE:	400°F-500°F (204°C-260°C).
SPECIAL FIRE FIGHTING PROCEDURES:	None
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Depending on moisture content, and more importantly, particle diameter, wood dust may explode in the presence of an ignition source. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dusts.

NFPA Ratings: Health 1 • Fire 0 • Reactivity 0

5 Reactivity Data

Stability:	() Unstable (x) Stable
Conditions to Avoid:	N/A
Incompatibility (Material to avoid):	Avoid contact with oxidizing agents. Avoid open flames. This product may ignite at temperatures in excess of 400°F (204°C).
Hazardous decomposition or by-products:	Thermal decomposition products include carbon monoxide, carbon dioxide, aliphatic aldehydes, rosin acids, terpenes and polycyclic aromatic hydrocarbons.
Hazardous Polymerization:	() May Occur (x) Will Not Occur

6 Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled:

Not applicable for product in purchased form. Wood dust generated from sawing, sanding, drilling, or routing of this product may be vacuumed or shoveled for recovery or disposal. Avoid dusty conditions and provide good ventilation. Use NIOSH/MSHA approved respirator and goggles where ventilation is not possible.

Waste Disposal Method:

If disposed of or discarded in its purchased form, incineration is preferable. Dry land disposal is acceptable in most states. It is, however, the user's responsibility to determine at the time of disposal whether your product meets RCRA criteria for hazardous waste. Follow applicable federal, state and local regulations.

Precautions to be Taken in Handling and Storage:

No special handling precautions are required. Keep in a cool dry place away from open flames. Store in well ventilated areas.

A NIOSH/OSHA approved full-face respirator or half-face respirator with chemical goggles must be worn when the wood dust exposure limits are exceeded. It is recommended that a full-face respirator and half-face respirator have a dust cartridge.

7 Health Hazard Data

Primary Health Hazard:

The primary health hazards posed by this product are thought to be due to exposure to wood dust.

Primary Route(s) of Exposure:

- () Ingestion
- (x) Skin: Dust
- (x) Inhalation: Dust or gas

Acute Health Hazards – Signs and Symptoms of Exposure/Emergency and First Aid Procedures:

INGESTION: Not applicable with normal use.

EYE CONTACT: Wood dust may cause mechanical irritation. Treat dust in eye as foreign object. Flush with water to remove dust particle. Get medical help if irritation persists.

SKIN CONTACT: Wood dust of certain species may elicit allergic contact dermatitis in sensitized individuals, as well as mechanical irritation. This product may be irritable to the skin from drying or mechanical abrasion experienced during frequent handling. Get medical help if rash, irritation or dermatitis persists.

SKIN ABSORPTION: Not known to occur with normal use.

INHALATION: Wood dust may cause unpleasant deposit/obstruction in the nasal passages, resulting in dryness of nose, dry cough and headaches. Remove to fresh air. Get medical help if persistent irritation, severe coughing or breathing difficulty occurs.

Medical Conditions Generally Aggravated by Exposure:

Wood dust may aggravate pre-existing respiratory conditions or allergies.

Chronic Health Hazards:

Wood dust (and/or ligno-cellulosic fibers), depending on species, may cause respiratory sensitization and/or irritation. IARC classifies wood dust as a group 1 carcinogen to humans. 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 cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach,

colon or rectum with occupational exposure to wood dust. The NTP includes wood dust as a known human carcinogen in its Tenth report on Carcinogens dated November 2002.

Carcinogenicity Listing:

- (x) NTP: Wood Dust
- (x) IARC: Wood Dust

8 Control Measures

Personal Protective Equipment:

RESPIRATORY PROTECTION – Not applicable for product in purchased form. A NIOSH/MSHA approved respirator is recommended when allowable exposure limits may be exceeded.

PROTECTIVE GLOVES – Not required. However, cloth, canvas or leather gloves are recommended to minimize mechanical irritation from handling product.

EYE PROTECTION – Not applicable for product in purchased form. Goggles or safety glasses are recommended when machining this product.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT – Not applicable for product in purchased form. Outer garments may be desirable in extremely dusty areas.

WORK/HYGIENE PRACTICES – Follow good hygienic and house-keeping practices. Clean up areas where dust settles to avoid excessive accumulation of this combustible material. Minimize blowdown or other practices that generate high airborne dust concentrations.

Ventilation:

LOCAL EXHAUST – Provide local exhaust as needed so that exposure limits are met.

MECHANICAL (GENERAL) – Provide good ventilation in processing and storage areas as needed so that exposure limits are met.

OTHER – N/A

9 Transportation Data

Department of Transportation (DOT):
This product is not a DOT hazardous material.

10 Regulatory Information

TSCA: This product complies with TSCA inventory requirements.

SARA/CERCLA: This product does not contain chemicals in concentrations

DSL: N/A

FDA: N/A

HUD: Particleboard certified as meeting the Department of Housing and Urban Development (HUD) Manufacturing Home Construction and Safety Standards, 24 CFR does not emit in excess of 0.3 ppm free formaldehyde vapor when tested in accordance with ASTM E 1333, Large Scale Test Method for Determining Formaldehyde Emissions From Wood Products.

MSDS: FreeForm/Particleboard

11 User's Responsibility

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

12 Additional Information

Definition of Common Terms:

AGCIH = American Conference of Government Industrial Hygienists

C = Ceiling Limit

CAS # = Chemical Abstract System Number

IARC = International Agency for Research on Cancer

MSHA = Mine Safety and Health Administration

N/A = Not Applicable

NIOSH = National Institute of Occupational Safety and Health

NTP = National Toxicology Program

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Limit

STEL = Short Term Exposure Limit

LTV = Threshold Limit Value

TWA = Time Weighted Average