



**1. PRODUCT AND COMPANY INFORMATION**

Product Code: Not applicable  
 Product Name: LP FlameBlock  
 Brand Names: LP® FlameBlock

LP Corporation, 414 Union Street, Suite 2000, Nashville, TN 37219 Telephone: 800.450.6106

**2. COMPOSITION AND INGREDIENT INFORMATION**

Component(1)	CAS #	Exposure Limits
Wood Dust	NA	TLV-TWA = 1 mg/m <sup>3</sup>
Phenol-Formaldehyde Resin – (solids) (less than 0.1% of 108-95-2 free formaldehyde)	9003-35-4	PEL-TWA = 0.75 ppm PEL-STEL = 2 ppm TLV-C = 0.3 ppm
Polymeric Diphenylmethane Diisocyanate	9016-87-9	PNOS <sup>2</sup>
Refractory cement board	NA	PEL-TWA = 0.1 mg/m <sup>3</sup> TLV-TWA = 0.1 mg/m <sup>3</sup>
Silica (crystalline quartz)	14808-60-7	PEL = 10mg/m <sup>3</sup> , TLV = 0.025 (quartz) PEL = 5mg/m <sup>3</sup> , TLV = 0.025 (Cristobalite)
Wax Emulsion	NA	None Established
Zinc Borate <sup>(3)</sup>	138265-88-0	PNOS <sup>(2)</sup>

(1) Small amounts of waterbase paint and oilbase black stamp ink may be used to identify the product and the nailing pattern and to inhibit moisture ingress along board edges.

(2) PNOS: PEL-TWA = 15 mg/m<sup>3</sup>, total dust; PEL-TWA = 5 mg/m<sup>3</sup>, respirable fraction; TLV-TWA = 10 mg/m<sup>3</sup> inhalable particulate, 3 mg/m<sup>3</sup> respirable particulate.

(3) Found only in treated OSB products.

**3. HAZARDS IDENTIFICATION**

**Emergency Overview**

- Contact with strong oxidizers or exposure to temperatures greater than 400° F may cause a fire.
- Smoke may contain carbon monoxide, aldehydes, and other toxic materials.
- Airborne wood and resin dust may explode when combined with an ignition source.

**Potential Health Effects (based on expected use of product)**

- EYES: Dust may irritate the eyes.
- SKIN: Dust may cause skin irritation.
- INGESTION: Not known.
- INHALATION: Dust can cause irritation to mucous membranes and the upper respiratory tract. Wood dust and formaldehyde are considered carcinogens.

## 4. FIRST AID MEASURES

- **EYES:** For dust exposure, immediately flush eyes with plenty of water for at least 15 minutes.
- **SKIN:** Wash with soap and water. Get medical attention if irritation develops or persists.
- **INGESTION:** Consult a physician.
- **INHALATION:** Remove to fresh air, consult a physician.

**Note to Physicians:** Exposure to dust may aggravate symptoms of persons with pre-existing respiratory tract conditions and may cause skin and gastrointestinal symptoms.

## 5. FIRE FIGHTING MEASURES

### FLAMMABLE PROPERTIES:

- **Flash point:** Not applicable.

### FLAMMABLE LIMITS:

- **Lower flammable limit:** Not applicable.
- **Upper flammable limit:** Not applicable.

**AUTOIGNITION TEMPERATURE:** Wood Component 400-500° F, Face Component: NA

**EXPLOSION HAZARD:** Airborne concentrations of combustible dust, when combined with an ignition source, can create an explosion hazard if the dust concentration exceeds 30 - 60 g/m<sup>3</sup>.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, carbon monoxide, nitrogen oxides, aldehydes, cyanides, and other hazardous gases, vapors, and particles.

**EXTINGUISHING MEDIA:** Water, dry chemical and other agents rated for a wood fire (Type A fire). Use an extinguisher rated for a Type A fire.

**FIRE FIGHTING INSTRUCTIONS:** Evacuate the area and notify the fire department. If possible isolate the fire by moving other combustible materials. If the fire is small, use a hose-line or extinguisher rated for a Type A fire. If possible, dike and collect water used to fight fires. Fire fighters should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

Does not apply.

## 7. HANDLING AND STORAGE

**HANDLING:** Provide ventilation or other measures so that dust levels are below the exposure limits listed in Section 2.

**STORAGE:** Keep dust away from ignition sources and store in a closed container. Consult NFPA 68 and 70 for additional information.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Control airborne dust concentrations below the exposure limits.

Use only with adequate ventilation.

**RESPIRATORY PROTECTION:** When respiratory protection is required, or dust concentrations are unknown, use a NIOSH/MSHA approved air-purifying respirator for dusts.

**SKIN PROTECTION:** Wear work gloves to prevent skin irritation.

**EYE PROTECTION:** Wear ANSI approved eye protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	NA	DENSITY:	28 - 70 LB/FT <sup>3</sup>
MELTING POINT:	NA	pH:	NA
VAPOR PRESSURE:	NA	ODOR:	Slight to none
VAPOR DENSITY:	NA	APPEARANCE:	White, opaque layer of refractory cement
SOLUBILITY IN WATER:	NA		over oriented strand board with sealed edges.

## 10. STABILITY AND REACTIVITY

**CHEMICAL STABILITY: (CONDITIONS TO AVOID)** Stable.

**INCOMPATIBILITY:** Keep away from high temperatures and strong oxidizers, such as concentrated nitric acid, oxygen, hydrogen peroxide, and chlorine.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, hydrogen cyanide, and other products of wood combustion.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION FOR WOOD DUST, MDI AND FORMALDEHYDE

### WOOD DUST

Wood dust is known to be a human carcinogen. An increased incidence of adenocarcinoma of the nasal cavities and paranasal sinuses was observed in studies of people whose occupations are associated with wood dust exposure. (10<sup>th</sup> Edition of the National Toxicology Program's Report on Carcinogens)  
Wood dust from some tree species may induce sensitization.

**CANCER DESIGNATION:** MAK-1, NIOSH-Ca, TLV-A1, NTP-K

### SILICA DUST

Prolonged and repeated inhalation of crystalline silica dust may result in development of a fibrogenic lung disease (silicosis) and may be a contributing factor to the onset of other respiratory illness. Silica dust has been identified by IARC (International Agency for Research on Cancer) as a probable animal carcinogen. There is limited evidence for carcinogenicity in humans.

### MDI RESIN and FORMALDEHYDE

**CHRONIC (CANCER) INFORMATION:** For typical products tested, MDI off-gassing is below the detection limit of 20 ppt.

**TERATOLOGY (BIRTH DEFECT) INFORMATION:** NA

**REPRODUCTION INFORMATION:** Reproductive effects in animals have been reported in RTECS for formaldehyde.

**SENSITIZER:** Exposure to low doses of formaldehyde may cause sensitization.

**CANCER DESIGNATION:** MAK-3B, EPA-B1, IARC-1, NIOSH-Ca, NTP-R, OSHA-Ca, TLV-A2

## 12. ECOLOGICAL INFORMATION

These wood products are not expected to pose an ecological hazard as a result of their intended uses.

## 13. DISPOSAL CONSIDERATIONS

Dispose of waste according to local, state/provincial, and federal requirements.

## 14. TRANSPORTATION INFORMATION

### Hazardous Materials Table 172.101

Shipping Name	NA	Packing Group	NA
Hazard Class	NA	Placards/Labels	NA
Identification No.	NA	Special Provisions	NA

## 15. REGULATORY INFORMATION

OSHA: Hazard Communication	CFR 1910.1200 (b)(6)(iv)	CERCLA RQ:	NA
EPCRA EHS RQ Section 302:	NA	EPA CAA Section 112(r):	NA
EPCRA Section 313:	NA	Uniform Fire Code:	NA

## 16. OTHER INFORMATION

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## ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
C	Ceiling Limit
CAS#	Chemical Abstracts System Number
IARC	International Agency for Research on Cancer
MSHA	Mining Safety and Health Administration
NAV	Not Available
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
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)

## BIBLIOGRAPHY

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3. Dangerous Properties of Industrial Materials, Sax's, 1998 CD-Folio.
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5. Integrated Risk Information System, EPA, on-line.
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7. Handbook of Fire Protection Engineering, 2<sup>nd</sup> Edition.
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12. IARC bulletin No. 153.