

**Louisiana-Pacific Corporation**  
**MSDS - 029**  
**LP® SmartSide®**



**Product and Company Information**

Product Code: Not applicable  
Product Name: Treated Engineered Wood Siding and Exterior Products  
Brand Names: LP SmartSide

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

**Composition and Ingredient Information**

| Component(1)                           | CAS #       | Exposure Limits               | Cancer Designation                |
|--|-------------|-------------------------------|-----------------------------------|
| Wood Dust                              | NA          | TLV-TWA = 1 mg/m <sup>3</sup> | MAK-1, NIOSH-Ca,<br>TLV-A1, NTP-K |
| Polymeric Diphenylmethane Diisocyanate | 9016-87-9   | PNOS(2)                       | MAK-3B                            |
| Phenolic Resin Saturated Paper         | NA          | PNOS(2)                       |                                   |
| Zinc Borate                            | 138265-88-0 | PNOS(2)                       |                                   |
| Wax Emulsion                           | NA          | None Established              |                                   |

(1) Small amounts of water-based paint and oil-based 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.

**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 is considered a carcinogen.

**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.

## Fire Fighting Measures

### FLAMMABLE PROPERTIES:

- Flash point: Not applicable.
- Combustible: Material may burn on contact with oxidizers or ignition sources.

### FLAMMABLE LIMITS:

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

**AUTOIGNITION TEMPERATURE:** Typically 400-500° F.

**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.

## Accidental Release Measures

Does not apply.

## 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.

## 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.

## Physical and Chemical Properties

|                             |    |                    |                            |
|-----------------------------|----|--------------------|----------------------------|
| <b>BOILING POINT:</b>       | NA | <b>DENSITY:</b>    | 28 - 70 lb/ft <sup>3</sup> |
| <b>MELTING POINT:</b>       | NA | <b>pH:</b>         | NA                         |
| <b>VAPOR PRESSURE:</b>      | NA | <b>ODOR:</b>       | Slight to none             |
| <b>VAPOR DENSITY:</b>       | NA | <b>APPEARANCE:</b> | Light brown wood panels    |
| <b>SOLUBILITY IN WATER:</b> | NA |                    |                            |

## 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.

## Toxicological Information for Wood Dust and MDI

### 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.

### MDI RESIN

**Chronic (Cancer) Information:** For typical products tested, MDI off-gassing is below the detection limit of 20 ppt. See Section 2 for composition and ingredient information for carcinogenic categories.

**Teratology (Birth Defect) Information:** NA

**Reproduction Information:** NA

**Sensitizer:** NA

## Ecological Information

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

## Disposal Consideration

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

## 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 |

## 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 |

## Other Information

This MSDS is intended solely for safety education and not for use as specifications or warranties. The information in this MSDS was obtained from usually reliable sources and is provided without any representation for warranties regarding the accuracy or correctness. Since the handling, use, and storage is beyond our control, LP<sup>®</sup> assumes no responsibility and disclaims liability for any loss, damage or expense arising therefrom.

## Abbreviations

|                    |  |
|--------------------|--|
| ANSI               | American National Standards Institute  |
| APA                | American Plywood Association   |
| ASTM               | American Society for Testing and Materials   |
| C                  | Ceiling  |
| CAA                | Clean Air Act  |
| CAS                | Chemical Abstract Services (identifies specific chemical)  |
| CERCLA             | Comprehensive Environmental Response Compensation and Liability Act  |
| CFR                | Code of Federal Regulations  |
| Dust               | A finely divided solid 0.017 in. or less in diameter that is capable of passing through a U.S. No. 40 standard sieve   |
| EHS                | Extremely Hazardous Substance  |
| EPA-B1             | Environmental Protection Agency-Limited evidence of carcinogenicity from epidemiological studies                       |
| EPCRA              | Emergency Planning and Community Right-To-Know Act   |
| IARC-2A            | International Agency for Research on Cancer-Probably Carcinogenic to Humans  |
| G/m <sup>3</sup>   | Grams per cubic meter  |
| mg/m <sup>3</sup>  | Milligrams per cubic meter   |
| lb/ft <sup>3</sup> | Pounds per cubic foot  |
| MAK-1              | Substances that cause cancer in man  |
| MAK-3              | Substances which cause concern that they could be carcinogenic for man   |
| MAK-3B             | Substances for which in vitro tests or animal studies have yielded evidence of carcinogenic effects                    |
| MSHA               | Mine Safety Health Act   |
| NA                 | Not applicable   |
| NFPA               | National Fire Protection Association   |
| NIOSH-Ca           | National Institute of Occupational Safety and Health-Potential occupational carcinogen, with no further categorization |
| NTP-K              | National Toxicology Program-Known to be a carcinogen   |
| NTP-R              | National Toxicology Program-Reasonably anticipated to be a carcinogen  |
| OSHA-Ca            | Occupational Safety and Health Administration-Carcinogen defined with no further categorization                        |
| PNOS               | Particle Not Otherwise Specified   |
| PEL                | OSHA Permissible Exposure Limit  |
| ppm                | Parts per million  |
| ppt                | Parts per trillion   |
| RTECS              | Registry of Toxic Effects of Chemical Substances   |
| RQ                 | Reportable Quantity  |
| STEL               | Short-Term Exposure Limit  |
| TLV-A1             | Threshold Limit Value-Confirmed Human Carcinogen   |
| TLV-A2             | Threshold Limit Value-Suspected Human Carcinogen   |
| TWA                | 8-hour time-weighted average exposure  |

## Bibliography

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5. Integrated Risk Information System, EPA, on-line.
6. EPA Title III List of Lists.
7. Handbook of Fire Protection Engineering, 2<sup>nd</sup> Edition.
8. 49 CFR 172.101, Hazardous Materials Table, from Chempendium. Q-1, 2003.
9. Documentation of the TLVs®, American Conference of Governmental Industrial Hygienists, 2002.
10. 10th Edition of the National Toxicology Program's Report on Carcinogens, 2002.
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