

SAFETY DATA SHEET
PLYWOOD PRODUCTS BONDED WITH PHENOL-FORMALDEHYDE

1.- IDENTIFICATION

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| Product | Araucoply |
| Synonyms | Radiata Pine Plywood Softwood Plywood |
| Recommended use | Building Materials - Decorative, Furniture, General Construction |
| Company Name | Paneles Arauco S.A |
| Address | Autopista Itata Km , 21 Ranquil , Chile. |
| Phone | 56-41-2862700 |
| Website | www.araucoply.cl |

2.- HAZARD IDENTIFICATION
Signal word Danger

NOTE This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous as the result of downstream activities (e.g. cutting/sanding) which creates small particles resulting in the potential hazards as described below.

Classification of the substance or mixture and hazard statements:

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| Dust | Wood dust can irritate eyes and breathing passages. Nasal dryness, coughing, sneezing and wheezing as a result of inhalation. |
| Formaldehyde | These products release very low amounts of formaldehyde. Formaldehyde may be irritating to the eyes, nose through and skin. It may aggravate existing respiratory problems and cause allergies in certain susceptible persons. Formaldehyde is listed by IARC , NTP and OSHA as Probable Human Carcinogen. |
| Routes of entry | Irritation. Skin contact with wood may evoke allergic contact dermatitis. |

Label elements
DANGER

Precautionary Statement(s):

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| Prevention Statements | P243: Take precautionary measures against static discharge. P260 and P261: Avoid breathing dust. P280: Wear protective gloves/protective clothing/eye protection. P285: In case of inadequate ventilation wear respiratory protection. |
| Response Statements | P302 - P352: If on skin: wash plenty of soap and water. P313: If skin irritation or rash occurs: Get medical advice/attention. P304 - P340: If inhaled: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 - P338: If in eyes: rinse cautiously for several minutes. Remove contact lenses if present and easy to do. P313: If eye irritation persists: Get medical advice/attention. P308 - P313: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. P362 and P363: Take off contaminated clothing and wash before reuse. |
| Disposal | P501: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. |

3.- COMPOSITION/INFORMATION ON INGREDIENTS
AraucoPly is composed of wood and phenol-formaldehyde resin:

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| Wood | CAS: none | 80-99% |
| Polymeric Phenol-formaldehyde | CAS: 9003-35-4 | 20-1% |
| Chemical or common name | Phenol-Formaldehyde resin | |
| Chemical Formula | C8H6O2 | |

4.-FIRST-AID MEASURES
Emergency and First Aid Procedure:

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| 1.- Inhalation | Gaseous formaldehyde may cause temporary irritation to eyes , nose and throat. Wood dust may cause respiratory sensitization and/or irritation. If inhale, remove to fresh air. Get medical advice if persistent irritation, severe coughing or breathing difficulty occurs. |
| 2.- Skin contact | Both formaldehyde and various species of wood may cause allergic contact dermatitis in sensitized individual. In case of contact, flush skin with plenty of water for at least 15 minute. Remove contaminated clothing and footwear. Get medical attention if rash or persistent irritation or dermatitis occurs. Wash clothing before reuse. |

3.-Eye Contact Gaseous formaldehyde may cause temporary irritation or a burning sensation. In case of contact immediately flush eyes with plenty of water for at least 15 minutes, holding lids apart to ensure flushing of each entire eye. Get medical attention immediately.

5.- FIRE-FIGHTING MEASURES

Extinguishing Media Water, Carbon Dioxide, Sand.
 Ignition Temperature 400°F - 500°F (204°C - 260°C) (Direct Flame)
 Unusual Fire and Explosion Hazards Board dust is strongly explosive therefore there is hazard on the direct contact of dust with ignition sources and in closed areas. Avoid dust accumulations.
 Hazardous Combustion Products Burning of Plywood can result in carbon monoxide, carbon dioxide, aliphatic aldehydes, including formaldehyde, resin acids, terpenes and polycyclic aromatic hydrocarbons. oxides of nitrogen, aldehydes, cyanides and other hazardous gases and particles.
 Firefighting Procedures No special procedures.

6.-ACCIDENTAL RELEASE MEASURES

Material released or spilled Vacuum, sweep or shovel to minimize dust generation. Provide adequate ventilation.
 Waste disposal methods Recovered wood dust in container for proper disposal.

7.- HANDLING AND STORAGE

Handling advice Avoid skin and eye contact. Avoid breathing dust.
 Storage advice Store in a cool, dry and well ventilated place away from open flame & sparks.

8.- EXPOSURE CONTROL MEASURES/PERSONAL PROTECTION

Exposure Limits:
 Gaseous Formaldehyde OSHA PEL -TWA : 0,75 ppm
 OSHA PEL -STEL: 2 ppm
 ACGIH TLV-TWA : 0,3 ppm

Engineering Measures/Controls:
 Local exhaust Provide local exhaust when machining products.
 Mechanical (General) Provide general ventilation in processing and storage areas as needed so that exposure limits are met

Personal Protective Equipment:
 Respiratory protection None usually required if dust and formaldehyde concentrations are within acceptable limits. Approved dust/formaldehyde respiratory protector and goggles are recommended when the allowable exposure limits may be exceeded.
 Protective Gloves Not required. Cloth, canvas, or leather gloves are recommended.
 Eye protection Goggles or safety glasses are recommended when machining products.
 Special Special-contained breathing apparatus (SCBA) recommended when fighting fire.

9.- PHYSICAL AND CHEMICAL PROPERTIES

Physical state Solid
 Boiling Point (°F) Not Applicable
 Vapor Pressure (MMHg) Not Applicable
 Vapor Density (Air=1) Not Applicable
 Specific Gravity (H2O=1) 0,53
 Evaporation rate Not Applicable
 Solubility in Water Insoluble in water
 % Volatiles by Volumen Not Applicable

10.-STABILITY AND REACTIVITY

Stability The product is stable
 Incompatibility (materials to avoid) Avoid direct flame
 Product may ignite at temperatures in excess of 204 °C.

11.-TOXICOLOGICAL INFORMATION

Route(s) of entry/exposure **Inhalation, Skin, Eye (Dust)**

Components:
 Formaldehyde **50-00-0** **Acute Toxicity:** Ingestion/Oral-Rat LD50 • 100 mg/kg; Inhalation-Rat LC50 • 203 mg/m³; Peripheral Nerve and Sensation **Spastic paralysis with or without sensory change; Behavioral:Convulsions or effect on seizure threshold; Behavioral:Excitement; Irritation:** Eye-Rabbit • 750 µg 24 Hour(s) • Severe irritation; Skin-Rabbit • 2 mg 24 Hour(s) • Severe irritation;
Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 500 mg/kg 20 Day(s)-Intermittent; Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:**Transaminases;** Inhalation-Mouse TCLo • 400 ppb 12 Week(s)-Intermittent; Lungs, Thorax, or Respiration **Other changes;** Endocrine:**Changes in spleen weight;** Biochemical:Metabolism (intermediary) **Other proteins; Mutagen:** Micronucleus test • Inhalation-Human • 2 ppm 15 Minute(s); Micronucleus test • Inhalation-Human • 0.1 ppm 8 Hour(s);
Reproductive: Inhalation-Rat TCLo • 12 µg/m³ 24 Hour(s)(15D pre/1-22D preg); Reproductive Effects:Effects on Newborn **Growth statistics (e.g., reduced weight gain);** Reproductive Effects:Effects on Newborn **Other postnatal measures or effects**

Potential Health Effects:
 Carcinogenic Effects Wood dust is listed by NTP known to be a Human Carcinogen (10th Report), IARC Monographs: Wood dust, Group 1 - IARC Group 1: Carcinogenic to humans; 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 hypopharynx, oropharynx, lymphatic and hematopoietic systems, lungs, stomach, colon or rectum.

12.-ECOLOGICAL INFORMATION

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| Toxicity | This product is not expected to have ecological effects on the environment |
| Persistence and degradability | The product would be expected to be biodegradable |
| Bioaccumulation | Not expected to bioaccumulated |
| Mobility in soil | Not Available |

13.- DISPOSAL CONSIDERATION

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| Waste information | Refer to local regulations. Normally suitable for disposal at approved land waste site |
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14.-TRANSPORT INFORMATION

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| US DOT Information | This material is not a DOT hazardous material. |
| Canadian Transportation of Dangerous Goods (TDG): | These products are not listed as a hazardous material. |

15.-REGULATORY INFORMATION

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| TSCA | Phenol-formaldehyde resin is on the TSCA chemical substance inventory. |
| CERCLA | Formaldehyde (100 lbs RQ) is on the CERCLA chemical substance inventory |
| DSL | Formaldehyde is on the Canadian Domestic Substance List. |
| OSHA | Wood products are not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, wood and resin dust generated by sawing, sanding or machining these products may be hazardous. Workplace exposure to formaldehyde is specifically regulates under 29 CFR 1910.1048. |
| SARA Hazard Classifications | Acute, Chronic |
| FDA | Not intended for use as a food additive or indirect food contact item. |
| WHMIS Classification | Wood and products made from wood are exempt from WHMIS per the Hazardous Products Act. However, wood dust is considered to be a controlled product: D2A (wood dust and formaldehyde: IARC Group 1) |

16.- OTHER INFORMATION

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| Preparation date: | February 3, 2016 |
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DISCLAIMER:

This SDS is intended to be used solely for safety education and not use as specifications or warranties. The information in this SDS is provided without any representations or warranties regarding the accuracy or correctness. Since the handling and storage and use are beyond our control, Paneles Arauco S.A assume: no responsibility and disclaims liability for any loss, damage or expense arising therefrom

KEY / LEGEND:

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| ACGIH | American Conference of Governmental Industrial Hygienists |
| CAS | Chemical Abstract Services Number |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CFR | Code of Federal Regulations |
| DOT | Department of Transportation |
| DSL | Domestic Substance List |
| FDA | Food and Drug Administration |
| IARC | International Agency for Research on Cancer |
| NTP | National Toxicology Program |
| OSHA | Occupational Safety and Health Administration |
| PEL | Permissible Exposure Limit. |
| STEL | Short Term Exposure List |
| TLV | Threshold Limit Value |
| TSCA | Toxic Substance Control Act |
| TWA | Time Weighted Average |
| WHMIS | Workplace Hazardous Materials Information System |