SAFETY DATA SHEET
PLYWOOD PRODUCTS BONDED WITH PHENOL-FORMALDEHYDE

1.- IDENTIFICATION

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 Rancuil, 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 or sanding) which creates small particles resulting in the potential hazards as described below.

Classification of the substance or mixture and hazard statements:

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):


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:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Chemical or common name</th>
<th>Chemical Formula</th>
<th>CAS</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood</td>
<td>Phenol-Formaldehyde resin</td>
<td>C8H6O2</td>
<td>none</td>
<td>80-99%</td>
</tr>
<tr>
<td>Polymeric phenol-formaldehyde</td>
<td>9003-35-4</td>
<td>20-1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.-FIRST-AID MEASURES

Emergency and First Aid Procedure:

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 minute, 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 way 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 Volume: 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 TCLo • 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

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>This product is not expected to have ecological effects on the environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistance and degradability</td>
<td>The product would be expected to be biodegradable</td>
</tr>
<tr>
<td>Bioaccumulation</td>
<td>Not expected to bioaccumulated</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

13.- DISPOSAL CONSIDERATION

Waste information: Refer to local regulations. Normally suitable for disposal at approved land waste site.

14.- TRANSPORT INFORMATION

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

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Phenol-formaldehyde resin is on the TSCA chemical substance inventory.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERCLA</td>
<td>Formladehyde (100 lbs RQ) is on the CERCLA chemical substance inventory.</td>
</tr>
<tr>
<td>DSL</td>
<td>Formaldehyde is on the Canadian Domestic Substance List.</td>
</tr>
<tr>
<td>OSHA</td>
<td>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.</td>
</tr>
<tr>
<td>SARA Hazard Classifications</td>
<td>Acute, Chronic</td>
</tr>
<tr>
<td>FDA</td>
<td>Not intended for use as a food additive or indirect food contact item</td>
</tr>
<tr>
<td>WHIMIS Classification</td>
<td>Wood and products made from wood are exempt from WHIMIS per the Hazardous Products Act. However, wood dust is considered to be a controlled product: D2A (wood dust and formaldehyde: IARC Group 1).</td>
</tr>
</tbody>
</table>

16.- OTHER INFORMATION

Preparation date: February 3, 2016

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 assumes no responsibility and disclaims liability for any loss, damage or expense arising therefrom.

KEY / LEGEND:

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
TWA    Time Weighted Average
WHIMIS Workplace Hazardous Materials Information System