1. Product and Company Identification

<table>
<thead>
<tr>
<th>Material name</th>
<th>WOOD PRODUCTS (UF BONDED)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product use</td>
<td>Building Materials - Decorative</td>
</tr>
<tr>
<td>Chemical description</td>
<td>Medium Density Fiberboard (MDF) and hardboard paneling bonded with urea-formaldehyde resin.</td>
</tr>
<tr>
<td>Product list</td>
<td>See Product List found in Section 16</td>
</tr>
<tr>
<td>Manufacturer information</td>
<td>Georgia-Pacific Wood Products LLC</td>
</tr>
<tr>
<td></td>
<td>133 Peachtree Street, NE</td>
</tr>
<tr>
<td></td>
<td>Atlanta, GA 3030</td>
</tr>
<tr>
<td></td>
<td>MSDS Request 404.652.5119</td>
</tr>
<tr>
<td></td>
<td>Technical Information 800.284.5347</td>
</tr>
<tr>
<td></td>
<td>Chemtrec - Emergency 800.424.9300</td>
</tr>
</tbody>
</table>

2. Hazards Identification

Emergency overview

Sawing, sanding or machining wood or wood products can generate dust. Wood dust may ignite or form explosive mixture with air in the presence of an ignition source. Wood dust and/or formaldehyde may be irritating to eyes, skin and/or respiratory system.

Potential health effects

<table>
<thead>
<tr>
<th>Eyes</th>
<th>Contact with eyes may cause irritation and/or injury.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>Contact with skin may cause irritation.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Dust and formaldehyde vapors may cause respiratory tract irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Due to material form and application, ingestion is considered unlikely. May result in irritation of the digestive tract.</td>
</tr>
</tbody>
</table>

Target organs

Eyes, skin, gastrointestinal tract, and respiratory system

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOOD/WOOD DUST</td>
<td>Not Assigned</td>
<td>60 - 100</td>
</tr>
<tr>
<td>FORMALDEHYDE</td>
<td>50-00-0</td>
<td>0 - 0.1</td>
</tr>
</tbody>
</table>

Composition comments

Some lumber products may be sprayed with sap stain control coatings.

4. First Aid Measures

First aid procedures

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. Do not rub the eyes. Get medical attention immediately.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>If irritation develops, wash with soap and water. Get medical attention if irritation persists.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Remove from area of exposure. If the affected person is not breathing, apply artificial respiration. If persistent irritation, severe coughing or breathing difficulty occurs, seek medical attention.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>If wood or wood dust is swallowed, get immediate medical attention or advice -- Do not induce vomiting.</td>
</tr>
</tbody>
</table>

5. Fire Fighting Measures

Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Use methods for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire fighting equipment/instructions</td>
<td>Firefighters should wear full protective clothing including self contained breathing apparatus. Partially burned dust is especially hazardous if dispersed into the air. Wet down to reduce likelihood of ignition or dispersion. Remove burned or wet dust to open, secure area after fire is extinguished.</td>
</tr>
</tbody>
</table>

Explosion data

| Sensitivity to static discharge         | Not available.                        |
Sensitivity to mechanical impact: Not available.

Hazardous combustion products: Hazardous decomposition products may include irritating fumes or gases including carbon monoxide, aldehydes or organic acids.

6. Accidental Release Measures

Personal precautions: Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Avoid inhalation of dust during clean up.

Methods for cleaning up: Vacuum or wet sweep small wood pieces and dust; place in appropriate container for disposal. Gather larger pieces by an appropriate method. Reduce airborne dust by use of wet methods and prevent scattering by moistening with water.

7. Handling and Storage

Handling: Dust can form an explosive mixture in air. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Use personal protective equipment as required. Avoid frequent or prolonged inhalation of wood dust. Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling. Keep formation of airborne dusts to a minimum. Keep away from heat and sources of ignition.

Storage: Store flat, supported and protected from direct contact with the ground. Keep in a well-ventilated place away from incompatible materials. Store in a cool dry place.

8. Exposure Controls / Personal Protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
</tr>
<tr>
<td>FORMALDEHYDE</td>
</tr>
<tr>
<td>(50-00-0)</td>
</tr>
<tr>
<td>WOOD/WOOD DUST (Not Assigned)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U.S. - OSHA Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
</tr>
<tr>
<td>FORMALDEHYDE</td>
</tr>
<tr>
<td>(50-00-0)</td>
</tr>
<tr>
<td>WOOD/WOOD DUST (Not Assigned)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Exposure guidelines: Georgia-Pacific Wood Products LLC voluntarily elects to adhere to exposure limits contained in OSHA’s 1989 Air Contaminants Standard although certain limits were vacated in 1992. The present OSHA exposure limits governing wood dust is 15 mg/m³ (Total Dust) and 5 mg/m³ (Respirable Fraction).

Engineering controls: Due to the explosive potential of dust when suspended in air, precautions should be taken when sawing, sanding, or machining wood or wood products to prevent sparks or other ignition sources in ventilation equipment. Local exhaust ventilation is recommended when sawing, sanding, or machining this product. General dilution ventilation is recommended in processing and storage areas. Use wet methods, if appropriate, to reduce generation of dust.

Personal protective equipment

Eye / face protection: Safety glasses or goggles are recommended when using this product. Ensure compliance with OSHA's PPE standard (29 CFR 1910.132 and .133) for eye and face protection.

Skin protection: Impervious protective clothing and gloves recommended to prevent drying or irritation of skin. Ensure compliance with OSHA's PPE standards (29 CFR 1910.132 (general) and 138 (hand protection)). Safety shower/eye wash fountain is recommended in the workplace area (29 CFR 1910.151 (c)).

Respiratory protection: A NIOSH approved dust mask or filtering facepiece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA’s respirator standard (29 CFR 1910.134) and ANSI’s standard for respiratory protection (Z88.2).
9. Physical & Chemical Properties

- **Appearance**: Rigid board
- **Color**: Various
- **Form**: Solid wood
- **Odor**: Resinous wood
- **Odor threshold**: Not available
- **pH**: Not applicable
- **Freezing point**: Not applicable
- **Boiling point**: Not applicable
- **Flash point**: Not applicable
- **Evaporation rate**: Not applicable
- **Flammability**: Combustible
- **Flammability limits in air, upper, % by volume**: Not available
- **Flammability limits in air, lower, % by volume**: 40 g/cm³ for wood dust
- **Vapor pressure**: Not applicable
- **Vapor density**: Not applicable
- **Specific gravity**: Variable
- **Partition coefficient (n-octanol/water)**: Not applicable
- **Solubility (water)**: Insoluble
- **Auto-ignition temperature**: 399.2 - 500 °F (204.4 - 260 °C) for wood

10. Chemical Stability & Reactivity Information

- **Chemical stability**: Stable at normal conditions.
- **Conditions of reactivity**: None known.
- **Incompatible materials**: Strong acids, alkalis, oxidizing agents and drying oils.
- **Hazardous decomposition products**: Thermal decomposition may emit irritating fumes or gases of carbon monoxide, carbon dioxide, aldehydes, or organic acids.
- **Possibility of hazardous reactions**: Will not occur.

11. Toxicological Information

- **Toxicological information**: No toxicological data available for this product. Toxicological information for components of this product is listed below.

  **WOOD DUST.** Wood dust may cause dryness, irritation, coughing or sinusitis. IARC and NTP classify wood dust as a carcinogen due to cancers of the upper respiratory system.

  **FORMALDEHYDE.** Exposure to formaldehyde may cause temporary irritation to the nose and throat and may lead to respiratory disorders. Pre-existing respiratory disorders may also be aggravated by exposure. Studies have reported that persons with asthma responded no differently than healthy individuals at concentrations as high as 3 ppm.

  IARC and NTP classify formaldehyde as a carcinogen due to cancers of the upper respiratory system and leukemia. OSHA regulates formaldehyde as a potential carcinogen for exposures at or exceeding 0.5 ppm.

**Toxicological information (Ingredients)**

**FORMALDEHYDE (CAS # 50-00-0)**

- **Toxicology Data - Selected LD50s and LC50s**
  - Inhalation LC50 Rat: 0.48 mg/l/4h
  - Oral LD50 Rat: 100 mg/kg

- **Routes of exposure**: Skin contact. Eye contact. Inhalation.

- **Sensitization**
  - **ACGIH Sensitizer**

  **FORMALDEHYDE (CAS 50-00-0)**
  US ACGIH Threshold Limit Values: Sensitiser
Chronic effects
Hazardous by OSHA/WHMIS criteria.

Carcinogenicity
Hazardous by OSHA/WHMIS criteria.

ACGIH Carcinogens
- FORMALDEHYDE (CAS 50-00-0) US ACGIH Threshold Limit Values: A2 carcinogen
- WOOD/WOOD DUST (CAS Not Assigned) US ACGIH Threshold Limit Values: A1 carcinogen

IARC Monographs Overall Evaluation of Carcinogenicity
- FORMALDEHYDE (CAS 50-00-0) 1 Volume 88, Volume 100F
- WOOD/WOOD DUST (CAS Not Assigned) 1 Volume 62, Volume 100C

US NTP Report on Carcinogens: Anticipated carcinogen
- FORMALDEHYDE (CAS 50-00-0) US NTP Report on Carcinogens: Anticipated carcinogen
- WOOD/WOOD DUST (CAS Not Assigned) US NTP Report on Carcinogens: Known carcinogen

US OSHA Specifically Regulated Substances: Potential cancer hazard
- FORMALDEHYDE (CAS 50-00-0) US OSHA Specifically Regulated Substances: Potential cancer hazard

US OSHA Specifically Regulated Substances: Reference
- FORMALDEHYDE (CAS 50-00-0) 29 CFR 1910.1048

Mutagenicity
Not expected to be hazardous by OSHA/WHMIS criteria.

Reproductive effects
Not expected to be hazardous by OSHA/WHMIS criteria.

Teratogenicity
Not expected to be hazardous by OSHA/WHMIS criteria.

Synergistic materials
Not available.

12. Ecological Information

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMALDEHYDE (50-00-0)</td>
<td>EC50 Daphnia: 2 mg/L 48.00 Hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Fish: 24.1 mg/L 96.00 Hours</td>
</tr>
</tbody>
</table>

13. Disposal Considerations

Disposal instructions
Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose of material according to Local, State, Federal, and Provincial Environmental Regulations.

14. Transport Information

DOT
Not regulated as dangerous goods.

TDG
Not regulated as dangerous goods.

15. Regulatory Information

Superfund Amendments and Reauthorization Act of 1986 (SARA)

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Hazard - Yes</td>
<td>Delayed Hazard - Yes</td>
</tr>
<tr>
<td>Fire Hazard - Yes</td>
<td>Pressure Hazard - No</td>
</tr>
<tr>
<td>Reactivity Hazard - No</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 302 extremely hazardous substance</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 311 hazardous chemical</td>
<td>Yes</td>
</tr>
<tr>
<td>Section 313 hazardous chemical</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Material name: WOOD PRODUCTS (UF BONDED)
ID: GP-30 Effective date: 10-19-2012
US federal regulations

OSHA. Wood products are not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, formaldehyde emissions and wood dust generated from sawing, sanding or machining wood and wood products is considered hazardous and is regulated under the Hazardous Communication Standard 29 CFR 1910.1200.

HUD. The Department of Housing and Urban Development (HUD) regulation 24 CFR 3280 provides for third-party certification of particleboard and hardwood plywood manufactured with urea-formaldehyde resin for formaldehyde emissions. In all cases, certification is made in accordance with ASTM E1333-96, Large Scale Test Method for Determining Formaldehyde Emissions from Wood Products. Georgia Pacific Wood Products, LLC does not manufacturer particleboard or hardwood plywood bonded with urea formaldehyde. Urea formaldehyde bonded thin MDF paneling manufactured by Georgia Pacific Wood Products, LLC is not covered in the HUD regulation 24 CFR 3280. It meets the formaldehyde emission requirements of ANSI A208.2-2002, Medium Density Fiberboard (MDF) for Interior Applications, with a voluntary certification level of 0.2 ppm at a loading rate of 0.08 square foot/cubic foot and is voluntarily certified to meet the HUD particleboard emission limit of 0.3 ppm at a loading rate of 0.13 square feet/cubic foot.

California Proposition 65. WARNING: This product contains chemicals, including formaldehyde, known to the state of California to cause cancer. Additionally, drilling, sawing, sanding or machining wood products generates wood dust and titanium dioxide particles, both chemicals are known to the state of California to cause cancer. Avoid inhaling such dust and particles; use a dust mask or other safeguards for personal protection.

California Air Resources Board (CARB). The CARB Air Toxic Control Measures regulation CCR 93120.2(a) provides for third-party certification and compliance with requirements to reduce allowable formaldehyde emissions from composite wood products. Phase 1 regulations require an emission standard of 0.21 ppm for Medium Density Fiberboard (MDF) and thin MDF. Georgia-Pacific medium density fiberboard products are certified to, and comply with, CARB Phase 1 formaldehyde emission levels.

US CERCLA Hazardous Substances: Reportable quantity

FORMALDEHYDE (CAS 50-00-0) 100 LBS

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

FORMALDEHYDE (CAS 50-00-0) 0.1 %

Canadian regulations
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Canada WHMIS Ingredient Disclosure: Threshold limits

FORMALDEHYDE (CAS 50-00-0) 0.1 %

WHMIS status Exempt

Inventory status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Product list

Medium Desity Fiberboard (MDF) Paneling - Mount Vernon®, StyleLine®

Engineered Boards - Jubilee® RTP Beadboard Paneling, Clutter Cutter™ Panels; InfiniCor® Industrial Panels

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HMIS® ratings
Health: 1*
Flammability: 1
Physical hazard: 0

NFPA ratings
Health: 1
Flammability: 1
Instability: 0
CAUTION!

SAWING, SANDING OR MACHINING WOOD PRODUCTS CAN PRODUCE WOOD DUST, WHICH CAN CAUSE A FLAMMABLE OR EXPLOSIVE HAZARD.

WOOD DUST MAY CAUSE LUNG, UPPER RESPIRATORY TRACT, EYE OR SKIN IRRITATION. SOME WOOD SPECIES MAY CAUSE DERMATITIS AND/OR RESPIRATORY ALLERGIC EFFECTS. EXPOSURE TO WOOD DUST MAY CAUSE CANCER.

PRECAUTIONS
Avoid dust contact with ignition source. Avoid frequent or prolonged inhalation of wood dust. Protect eyes from flying particles. Avoid dust contact with skin and wash exposed areas.

FIRST AID
If inhaled, remove to fresh air. In case of contact, flush eyes and skin with water. If irritation persists, call a physician.

HANDLING AND STORAGE
Avoid frequent or prolonged inhalation of wood dust. Protect eyes from flying particles. Avoid contact with skin and wash exposed areas thoroughly. Change protective clothing and gloves when signs of contamination appear.

Wood products are combustible and, therefore, should not be subjected to temperatures exceeding the autoignition temperature. Wet down wood dust generated by sawing, sanding, or machining to reduce the likelihood of ignition or dispersion of dust into the air.

For additional information, see the Georgia-Pacific Wood Products LLC Material Safety Data Sheet for this product.

Product Safety and Health Information
Georgia-Pacific LLC
P. O. Box 105605
Atlanta, GA  30348-5605

Disclaimer
The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Georgia-Pacific and its subsidiaries make no warranty of any kind, expressed or implied, concerning the accuracy or completeness of the information and data herein. The implied warranties of merchantability and fitness for a particular purpose are specifically excluded. Georgia-Pacific and its subsidiaries will not be liable for claims relating to any party’s use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading.

Effective Date
19-Oct-2012

Prepared by
Georgia-Pacific LLC
404.652.5119