



2311 ROYAL WINDSOR DRIVE, UNIT 2  
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## DRICORE® MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

Manufacturer	AGT Products Inc. 2311 Royal Windsor Drive, Mississauga, Ontario, Canada L5J 1K5	Emergency Phone Number	1-866-767-6374 Customer Service
		Revision Date	January 7, 2011

Product Name	<b>DRICORE®</b>
Synonyms	Subfloor system
Trade Name	<b>DRICORE®</b>
Description	This composite panel product contains a waferboard <sup>(1)</sup> core consisting of discrete wood flakes bonded together with phenolic resin <sup>(2)</sup> , using wax as resin carrier and water repellent, a moisture resistant coating on the face of the panel, and a moisture resistant high density polyethylene membrane glued to the back with a hot melt adhesive.

- For additional information about waferboard, refer to our separate waferboard MSDS.
- This product is manufactured using a phenol-formaldehyde thermoset resin. Maximum indoor formaldehyde (CAS RN 50-00-0) levels associated with freshly manufactured panels are similar to outdoor background levels in urban areas (less than 0.1ppm) and levels decrease through time as the panels age.

### 2. HAZARDS IDENTIFICATION

<b>Primary Health Hazard</b>	The primary health hazard posed by this product is thought to be due to exposure to wood dust.
<b>Medical Conditions Generally Aggravated by Exposure</b>	Individuals with predisposing conditions – asthma, bronchitis, allergies – may have difficulty working around airborne particulates including dust.
<b>Eye Contact</b>	Wood dust can cause mechanical irritation to the eyes. Excessive concentration may cause deposit in nasal passages resulting in rhinorrhea, dry cough, wheezing, sinusitis.
<b>Skin Contact</b>	Various species of wood dust may evoke allergic contact dermatitis in sensitized individuals.
<b>Ingestion</b>	n/a
<b>Skin Absorption</b>	Not known to occur.
<b>Inhalation : Wood Dust</b>	May cause nasal dryness, irritation and obstruction. Coughing, wheezing, and sneezing; sinusitis and prolonged colds have also been reported.

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

PRINCIPAL INGREDIENTS	QUANTITY	POTENTIAL AIR-BORNE RELEASES				
		(%)	ACGIH TLV		OSHA PEL <sup>(a)</sup>	
			TWA	STEL	TWA	STEL
<b>Core</b>						
Wood (Aspen)	95-97	n/a	n/a	n/a	n/a	
Hardwood dust (total)				15 mg/m <sup>3 (b)</sup>	10 mg/m <sup>3 (c)</sup>	
Hardwood dust (inhalable)		1 mg/m <sup>3</sup>	none	none	none	
Resin (phenol formaldehyde) <sup>(d)</sup>	2-3	0.3 ppm <sup>(e)</sup>	none	0.75 ppm	2 ppm	
Wax <sup>(f)</sup>	1-2	2 mg/m <sup>3</sup>	none	2 mg/m <sup>3</sup>	none	
<b>Coating</b>						
Mixture of polymers in water <sup>(g)</sup>	100	none	none	none	none	
<b>Membrane</b>						
Carbon Black (CAS RN 1333-86-4)	1-3	none	none	3.5 mg/m <sup>3</sup>	none	
(or Blue, mixture of pigments)	4-6	none	none	none	none	
HDPE (high density polyethylene) <sup>(h)</sup>	94-99	none	none	none	none	
<b>Adhesive</b>						
Hot melt adhesive, mixture of polymers <sup>(i)</sup>	100	none	none	none	none	

(a) Values for State PEL (or Province OEV) may be more restrictive.

(b) Respirable fraction is limited to 5 mg/m<sup>3</sup>.

(c) In *AFL-CIO v. OSHA* 965 F. 2d F 2d 962 (11<sup>th</sup> Cir. 1992), the Court overturned OSHA's 1989 Air Contaminant Rule, including the specific PELs for wood dust that OSHA had established at that time. The 1989 PELs were: TWA – 5.0 mg/m<sup>3</sup>; STEL(15 min) – 10.0 mg/m<sup>3</sup> (all soft and hard woods except Western red cedar); Western red cedar: TWA – 2.5 mg/m<sup>3</sup>.

Wood dust is now officially regulated as an organic dust under the Particulates Not Otherwise Regulated (PNOR) or Inert or Nuisance Dust categories at PELs noted in this section of the MSDS. However, a number of States have incorporated provisions of the 1989 standard in their State plans. Additionally, OSHA has announced that it may cite companies under the OSH Act General Duty Clause under appropriate circumstances for non-compliance with the 1989 PELs.

(d) Product contains less than 0.05% free formaldehyde and contains no urea-formaldehyde resin. Phenol formaldehyde is used in core material.

(e) Ceiling Exposure Value, or maximum airborne concentration.

(f) Paraffin wax (CAS RN 8002-74-2) fumes.

(g) Product contains no hazardous ingredients. For additional details on surface coating material, refer to separate MSDS from coating manufacturer.

(h) Product does not contain regulated substances. For additional details on membrane, refer to separate MSDS from HDPE supplier.

(i) Product does not contain regulated substances. For additional details on adhesive, refer to separate MSDS from adhesive manufacturer.

## 4. FIRST AID MEASURES

<b>Eyes</b>	Panel dust may mechanically irritate the eyes resulting in redness or watering. Flush eyes with large amounts of water. Remove to fresh air. Seek medical attention if irritation persists.
<b>Skin</b>	Dust of some wood species can elicit allergic contact dermatitis in sensitized individuals after repetitive contact with a rash or persistent irritation or dermatitis occurs. Wash affected areas with soap and water. Seek medical attention if rash or persistent irritation or dermatitis occurs before returning to work where wood dust is present.
<b>Inhalation</b>	Remove to fresh air. If persistent irritation, severe coughing, or breathing difficulties occur, seek medical attention where wood dust or formaldehyde is present (Primary route of exposure is inhalation).
<b>Ingestion</b>	n/a

## 5. FIRE FIGHTING MEASURES

### Core

<b>Flash Point</b>	n/a
<b>Flammable Limits</b>	Lower: n/a; Upper: n/a
<b>Auto-Ignition Temperature</b>	Variable, typically 400 - 500°F (204 - 260°C)
<b>Explosive Limits in Air</b>	See below under "Unusual Fire and Explosion Hazards"
<b>Extinguishing Media</b>	Water, Carbon dioxide, Sand.
<b>Normal Fire Fighting Procedures</b>	Determined by surrounding fire. Use a water spray to wet down panels and any wood dust to reduce the likelihood of ignition. Remove burned or wet material to open area after fire is extinguished.
<b>Unusual Fire and Explosion Hazards</b>	Wood dust is a strong to severe explosion hazard. Sawing, sanding or machining can produce wood dust as a by-product which may present an explosion hazard if the dust cloud contacts an ignition source. An airborne concentration of 40 grams of fine dust per cubic meter of air is often used as the LEL for wood dust.
<b>NFPA Rating (scale: 0 to 4)</b>	Health = 1; Fire = 1; Reactivity = 0.

### Membrane

<b>Flash Point</b>	645 °F (340 °C), but thermal degradation starts at 555 °F (290 °C)
<b>Flammable Limits</b>	Lower: n/a; Upper: n/a
<b>Auto-Ignition Temperature</b>	Variable, typically 590 - 770°F (330 - 410°C)
<b>Explosive Limits in Air</b>	See below under "Unusual Fire and Explosion Hazards"
<b>Extinguishing Media</b>	For large fires: Apply all-purpose type foam by manufacturer's recommended techniques. For small fires: use carbon dioxides or dry chemical media

<b>Normal Fire Fighting Procedures</b>	Do not direct a solid stream of water or foam into burning or molten material, this might cause spattering and spread of fire.
<b>Unusual Fire and Explosion Hazards</b>	Avoid dispersion of dust in air to reduce potential for dust ignition/explosions
<b>Products of Combustion</b>	Oxygen-lean conditions may produce carbon monoxide and irritating smoke.
<b>NFPA Rating (scale: 0 to 4)</b>	Health = 0; Fire = 1; Reactivity = 0.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Steps to be Taken in Case Material is Released or Spilled</b>	Not applicable for product in purchased form. Panel dust may be vacuumed or shovelled for recovery or disposal. Avoid dusty conditions. Provide good ventilation where dusting is possible. If this product is used in a process which generates dust levels in excess of the allowable exposure limits for wood dusts, wear a NIOSH/OSHA approved dust respirator and goggles where ventilation is not possible.
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## 7. HANDLING AND STORAGE

<b>Wood Dust</b>	<p>Avoid eye contact.</p> <p>Avoid repeated or prolonged contact with skin. Careful bathing and clean clothes are indicated after exposure.</p> <p>Avoid prolonged or repeated breathing of wood dust in the air.</p> <p>Avoid contact with oxidizing agents and drying oils.</p> <p>Avoid open flame.</p> <p>Avoid dusty conditions and provide good ventilation. Follow good hygiene and housekeeping practices. Clean up areas where dust settles to avoid excessive accumulation of this combustible material. Minimize blowdown or other practices which generate high dust concentrations. Due to the explosive potential of wood dust when suspended in the air, precautions should be taken to prevent sparks or other ignition sources in ventilation systems. Use of totally enclosed motors is recommended ( or may be warranted ) if process generates excessive levels of wood dust.</p>
<b>Handling and Storage</b>	No special handling precautions are required. Panels are combustible. Keep in cool, dry place away from open flame and other sources of ignition.

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

<b>Respiratory Protection</b>	IOSH/OSHA approved dust respirator under dusty conditions.
<b>Ventilation</b>	<p>Local exhaust: panel dust should be collected at source.</p> <p>Provide adequate general and local exhaust ventilation to maintain healthful working conditions.</p>

<b>Personal Protective Equipment</b>	Wear goggles or safety glasses when manufacturing or machining the product. Wear other protective equipment such as gloves, outer garments and approved respirators when the allowable exposure limits may be exceeded.
<b>Other Protective Clothing or Equipment</b>	Follow good hygiene and housekeeping practices. Clean up areas where dust settles to avoid excessive accumulation of this combustible material. Minimize blow down or other practices which generate high dust concentration.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Core

<b>Boiling Point (at 760 mm Hg)</b>	n/a
<b>Specific Gravity ( H<sub>2</sub>O = 1 )</b>	0.5 – 0.7
<b>Vapor Density (Air = 1 at 760 mm Hg)</b>	n/a
<b>Melting Point</b>	n/a
<b>Freezing Point</b>	n/a
<b>Vapor Pressure ( mm Hg )</b>	n/a
<b>Solubility in H<sub>2</sub>O (% by weight)</b>	< 0.2 percent
<b>Evaporation Rate (Butyl Acetate = 1)</b>	n/a
<b>pH</b>	n/a
<b>Appearance and Odor</b>	Light brown color panel consisting of a ligno-cellulosic matrix of interlocking wood fibers with slight aromatic odor over a black dimpled membrane back.
<b>Odor Threshold</b>	not available
<b>% Volatile by Volume (at 70°F /21 °C )</b>	0

### Membrane

<b>Specific Gravity ( H<sub>2</sub>O = 1 )</b>	0.92-0.97
<b>Melting Point</b>	129 °C – 133 °C
<b>% Volatile by Volume (at 70°F /21 °C )</b>	0
<b>Appearance</b>	Black or blue, moulded sheet of reprocessed polyethylene
<b>Odor</b>	Negligible

## 10. STABILITY AND REACTIVITY

### Core

<b>Conditions Contributing to Instability</b>	Stable product under normal conditions. However, excessive moisture conditions and open flame should be avoided.
<b>Incompatibility</b>	Avoid contact with oxidizing agents and drying oils. Product might ignite at temperatures in excess of 400 °F ( 204 °C ). Good housekeeping procedures and routine disposal of panel dust is suggested.
<b>Hazardous Decomposition or By-products</b>	When burned panel can produce carbon monoxide, carbon dioxide, polycyclic aromatic hydrocarbons, aldehydes and other toxic fumes and gases.
<b>Hazardous Polymerization</b>	Will not occur.

## Membrane

<b>Conditions Contributing to Instability</b>	Stable product under normal conditions. However, prolonged exposure to temperatures over 555 °F (290 °C) might cause membrane degradation.
<b>Incompatibility</b>	Very slightly reactive with oxidizing materials and acids. Non-reactive with reducing agents, combustible materials, organic materials, metals, alkalis, moisture.
<b>Hazardous Decomposition or By-products</b>	Thermal decomposition products may include carbon monoxide, carbon dioxide, aldehydes and other organic vapors.
<b>Hazardous Polymerization</b>	Will not occur.
<b>Special Remarks</b>	Inert material, decomposes on heating over 570 °F (300°C).

## 11. TOXICOLOGICAL INFORMATION

<b>Chronic Effects of Wood Dust</b>	Wood dust, depending on species, may cause dermatitis on prolonged, repetitive contact; may cause respiratory sensitization and/or irritation. Prolonged exposure to wood dust has been reported by some observers to be associated with nasal cancer.
<b>Carcinogenicity – Wood Dust</b>	NTP: yes – known to be a human carcinogen. IARC: monograph – yes, Group 1 – hardwood dust carcinogenic to humans. This classification is based on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to hardwood dust. IARC did not find sufficient evidence to associate cancers of the oropharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust. OSHA: no.
<b>Carcinogenicity Formaldehyde</b>	– NTP: yes – reasonably anticipated to be a human carcinogen. IARC: monograph – yes, Group 1 – carcinogenic to humans. OSHA: no – regulated formaldehyde gas, potential carcinogen for exposures exceeding 0.5 ppm. Formaldehyde has been classified as a known carcinogen or probable carcinogen by NTP, IARC and OSHA. Epidemiology studies of workers exposed to formaldehyde have failed to consistently identify an association between formaldehyde exposure and cancer. A working group of IARC has determined that there is sufficient evidence that formaldehyde causes nasopharyngeal cancer in humans, a rare form of cancer in developed countries.

## 12. ECOLOGICAL INFORMATION

<b>Environmental Fate</b>	No information is available at this time.
<b>Environmental Toxicity</b>	No information is available at this time.

## 13. DISPOSAL CONSIDERATIONS

### Core

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<b>Waste Disposal Methods</b>	If disposed or discarded in its purchased form, incineration is preferable. Place recovered wood dust in container for proper disposal. Dry land disposal may be acceptable. It is the user's responsibility to determine at the time of disposal whether your product meets federal, state or local regulations. Sweep or vacuum spills for recovery or disposal; avoid creating dust conditions. Provide good ventilation where dust conditions may occur.
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### Membrane

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<b>Waste Disposal Methods</b>	If disposed or discarded in its purchased form, this product is not considered a hazardous waste. Dispose of in accordance with local laws regulations.
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## 14. TRANSPORT INFORMATION

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<b>Mode (Air, Land, Water)</b>	Product is not regulated as a hazardous material by the U.S.D.O.T (Department of Transportation). Product is not listed as a hazardous material in Canadian TDG Regulations (Transportation of Dangerous Goods).
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## 15. REGULATORY INFORMATION

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<b>U.S. Federal Regulations</b>	This product is not controlled under the criteria of the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, wood dust generated by sawing, sanding or machining may be hazardous. Additionally, workplace exposure to formaldehyde is regulated under OSHA Standard 29 CFR 1910.1048. The membrane contained in this product is on the TSCA Inventory.
<b>Canadian Regulations</b>	This product is not controlled by WHMIS. Membrane is on the Domestic Substance List and is acceptable for use under the provisions of CEPA.
<b>California ARB</b>	This product is not subject to the Airborne Toxic Control Measure for composite wood products.
<b>California Proposition 65</b>	Formaldehyde and wood dust are on the State of California list of substances known to the State to cause cancer.
<b>Other Regulations</b>	Formaldehyde appears on the US Toxic Substance Control Act Inventory, the Canadian Domestic Substance List and several States Hazardous Substance Lists.

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*Note: This section provides selected regulatory information on this composite product. It is not intended to include all regulations. It is the responsibility of the user to comply with all applicable regulations and laws relating to this product.*

## 16. OTHER INFORMATION

<b>Term</b>	<b>Definition</b>
<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>C</b>	Degree Centigrade
<b>CARB</b>	California Air Resources Board
<b>CAS RN</b>	Chemical Abstracts Service Registry Number (American Chemical Society)
<b>CEPA</b>	Canadian Environmental Protection Act
<b>F</b>	Degree Fahrenheit
<b>IARC</b>	International Agency for Research on Cancer
<b>LEL</b>	Lower Explosive Limit
<b>mg/m<sup>3</sup></b>	milligrams per cubic meter of air
<b>n/a</b>	not applicable
<b>NIOSH</b>	National Institute for Occupational Safety and Health (US)
<b>NTP</b>	National Toxicology Program (US)
<b>OEV</b>	Occupational Exposure Value
<b>OSHA</b>	Occupational Safety and Health Administration (US)
<b>PEL</b>	Permissible Exposure Limit
<b>ppm</b>	parts per million, in air
<b>STEL</b>	Short Term Exposure Limit (15-minute)
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substance Control Act
<b>TWA</b>	Time Weighted Average (8-hour)
<b>WHMIS</b>	Workplace Hazardous Materials Information System

**USER'S RESPONSIBILITY:** *The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered solely for your consideration, investigation and verification. AGT Products Inc. makes no warranty or representation of any kind, expressed or implied, concerning the accuracy or completeness of the information and data herein. AGT Products Inc. 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. It is incumbent upon the user to obtain the most up-to-date information, and to determine this data and information to be in accordance with federal, provincial/state, or municipal laws and regulations.*

*This MSDS complies with ANSI Z240.1 format for the preparation of MSDS for Hazardous Industrial Chemicals.*