SAFETY DATA SHEET

SECTION 01 – IDENTIFICATION

Product Name/Identifier:

ChromaLuxe Wood Prints, ChromaLuxe Natural Wood Prints, ChromaLuxe MDF products, Unisub MDF Awards and Plaques, Unisub MDF products

Recommended Use:

Hard Surface Sublimation Photographic and Signage Media

Supplier Identification:

Universal Woods LLC
2600 Grassland Dr.
Louisville, KY 40299-2591
USA
Emergency Telephone No: (502) 491 1477
Other Information Calls: (502) 491 1461

Emergency Information:

CHEMTREC (24 hrs)
U.S./North America: (800) 424-9300
International: (703) 527-3887

SECTION 02 – HAZARD(S) IDENTIFICATION

GHS-US Hazard Classification

This product is an article as defined under OSHA regulation 29 CFR 1910.1200. In its manufactured and shipped form, this product does not present hazards leading to physical or health hazards under GHS hazard classification.

Further processing downstream (sawing, sanding, drilling) which will alter the present form may change the hazardous nature of the product. The classification presented below is based on the potential of chemical exposure upon alteration of the present form:

Health Hazards

Eyes. Direct contact with eyes may cause temporary irritation. (Category 2B)
Skin. Wood dust: Certain species may cause allergic dermatitis to certain individuals. (Category 1A)
Respiratory. Wood dust: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. (Category 1)
Carcinogenicity. Respiratory tract (Category 1A)
Specific Target Organ Toxicity, single exposure. Respiratory tract (Category 3)
Specific Target Organ Toxicity, repeated exposure. Respiratory tract (Category 1)

Environmental Hazards. Not classified

OSHA Defined Hazards. Combustible Dust. May form combustible dust concentrations in air (during processing).

Label Elements:

Signal Word. Danger

SECTION 03 – COMPOSITION/INFORMATION ON INGREDIENTS

Please Note: Other components used in the sublimation process such as inks are separate materials and are not covered in this SDS.

Chemical Name	CAS Number	Weight %
Wood Dust	50-00-0	80 - 100
Methylene bisphenol isocyanate (MDI)	101-68-8	1 - 5
Polymeric MDI (pMDI)	9016-87-9	1 - 5
2,4'-diphenyl methane diisocyanate	5873-54-1	0.1 - 1.5

Surface finishes are factory applied. These products are classified as an "article" according to 29 CRF 1910.1200(c). They do not release any hazardous chemical under normal conditions of use.

SECTION 04 – FIRST-AID MEASURES

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Eyes: Do not rub eyes. Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if symptoms persist.
Skin: Wash with soap and water. Get medical attention if symptoms occur. Wash contaminated clothing before reuse.
Ingestion: If wood or wood dust is swallowed, get medical attention. Do not induce vomiting.

SECTION 05 – FIRE-FIGHTING MEASURES

Flammable Properties: Burning of wood can produce irritating fumes and gases including carbon monoxide and carbon dioxide. As shipped, this product does not present an explosion hazard. Sawing, drilling, sanding, or machining this product could result in the creation of wood dust and or lingo-cellulosic fibers/dust. Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.
Suitable Extinguisher Media: Do not use high-pressure extinguishing media. Extinguish with foam, carbon dioxide, dry powder or water fog. Apply carefully to avoid creation of airborne dust which is potentially explosive. Use medium to wide pattern with low nozzle pressure as far away from burning material as possible.
Unsuitable Extinguisher Media: High pressure or heavy water stream may cause dust to become airborne and create a flash-fire hazard or explosive atmosphere.
Fire Fighting Procedures: Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Do not breathe fumes. Remove product from fire area if possible without risk to human life.

SECTION 06 –ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate personal protective equipment (see Section 8).
Methods for Cleaning Up: Sweep or scoop up and remove. Non-sparking tools should be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air), vacuum dust with ignition-proof vacuum or wet sweep (water mist) and place in an appropriate container for disposal (see Section 13).

SECTION 07 –HANDLING AND STORAGE

Safe Handling: Keep away from heat/sparks/open flames/hot surfaces. Avoid contact with eyes, skin, and clothing, wear proper PPE. Follow good housekeeping to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Minimize dust generation and accumulation and ensure dust collection systems are protected with fire and explosion prevention equipment. See NFPA 664 and NFPA69 for further information and guidance.
Storage: Store flat in a cool and dry place. Store away from incompatible materials (see Section 10).

SECTION 08 –EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	ACGIH TLV	NIOSH PEL	OSHA Table Z1	OSHA Table Z3
Wood dust (and/or lingo-cellulosic fibers) (CAS – N/A)	TWA: 1 mg/m^3 (Inhalable fraction)	TWA: 1 mg/m^3 (Dust)		TWA: 15 mg/m^3 (total dust) TWA: 5 mg/m^3 (respirable fraction)
Methylene Bisphenol Isocyanate (MDI) (CAS 101-68-8)	TWA: 0.005 ppm	Ceiling: 0.2 mg/m3 0.02 ppm TWA: 0.05 mg/m3 0.005 ppm	Ceiling: 0.2 mg/m3 0.02ppm	

Exposure Guidelines: Additional Occupational Exposure Limit information for Wood Dust:
California OELs: 8hr TWA: 5 mg/m3; 15-minute STEL 10 mg/m3.
Oregon OELs: 8hr TWA: 10 mg/m3.
Tennessee OELs: TWA: 5 mg/m3; STEL: 10 mg/m3.
Engineering Controls: Ensure adequate ventilation, especially in confined areas. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Personal Protective Equipment

Eye Protection: As shipped, this product does not pose a risk to eyes. During further processing, safety glasses required.
Skin Protection: It is good industrial hygiene practice to minimize skin contact. Wear suitable gloves and other impervious protective clothing as recommended by those manufacturers.
Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved NIOSH dust mask or filtering face mask should be worn. If respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR1910.134. Respirator type: High-efficiency particulate respirator.
General hygiene consideration: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 09 –PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Unisub & ChromaLuxe MDF items are shaped as a rigid panel or plaque. **Physical State:** Solid
Color: Various. Dependent on wood species.
Odor: Not available. The sublimation or engraving process could also create an odor.
Odor threshold: Not available.
pH: Not applicable
Melting Point/Freezing Point: Not applicable
Initial Boiling Point/Boiling Range: Not available
Flash Point: Not applicable
Evaporation Rate (BuAc = 1): NA
Flammability (solid, gas): Not available
Upper/lower flammability or explosive limits:
Flammability limit-lower (%) 40 g/cm3 for wood dust (Note: The LEL is equivalent to the Minimum Explosive Concentration (MEC) for the combustible dust. The MEC will vary with particle size of the wood dust. Recommend MEC testing for specific wood dust particle sizes generated or handled.)
Flammability limit-upper (%): Not available
Explosive limit-lower (%): Not available.
Explosive limit-upper (%): Not available.
Vapor Pressure (mm Hg): Not applicable
Vapor Density (Air = 1): Not applicable
Relative Density: Not available
Solubility (water): Insoluble
Partition Coefficient (n-octanol/water): Not applicable
Specific Gravity: variable
Auto-ignition temperature: 399.92 - 500 °F (204.4 - 260 °C) for wood
Decomposition temperature: Not available
Viscosity: Not available
Dust Explosion Properties: ST Class 1 (weak explosion)
Explosive Properties: Not explosive.
Flash Point Class: Combustible
Oxidizing Properties: Not oxidizing.

SECTION 10 –STABILITY AND REACTIVITY

Reactivity: Stable and non-reactive under normal conditions of use and storage.
Chemical Stability: Material is stable under normal conditions of use.
Possibility of Hazardous Reactions: No dangerous reactions known under normal conditions of use.
Conditions to Avoid: Dust accumulation, dispersion of dust in air, high temperatures, open flame, sparks, or other sources of ignition.
Incompatibility (Materials to Avoid): 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.
Hazardous Polymerization: Does not occur.

SECTION 11 –TOXICOLOGICAL INFORMATION

Product is a solid sheet of MDF. No hazards anticipated during handling and storage. Further processing (sawing, sanding, machining) may expose the user to potential hazards. The following information is based on that type of exposure.

Information on likely routes of exposure.

Inhalation. May cause irritation to the respiratory system (difficulty breathing). May cause allergy/asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.
Skin contact. May cause an allergic skin reaction (rash, dermatitis).
Eye contact. Causes eye irritation (tearing, redness, discomfort).
Ingestion. Not applicable under normal conditions of use. May result in obstruction or temporary irritation of the digestive tract.
Acute effects: The dust, which may be generated during manual or mechanical cutting, drilling, sanding, or other abrading processes and the smoke generated by heating or cutting, may cause temporary irritation of the eyes and respiratory tract. Prolonged skin contact may cause temporary irritation.
Chronic Effects: Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
Germ Cell Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity: Due to the form of the product, exposure to the potentially carcinogenic components is not expected. Potentially carcinogenic components are typically only present in trace amounts. Wood dust generated from sawing, sanding or machining this product may cause nasal dryness, irritation, coughing and sinusitis. The International Agency for Research on Cancer (IARC), and National Toxicology Program (NTP) classifies wood dust as a carcinogen. This classification is based on the increased occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. The evaluation noted insufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon, or rectum with exposure to wood dust.

IARC Monographs. Overall Evaluation of Carcinogenicity

Methylene Bisphenol Isocyanate (MDI)	3	Not classifiable as to carcinogenicity to humans
Polymeric MDI (pMDI)	3	Not classifiable as to carcinogenicity to humans
Wood/Wood Dust	1	Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Wood/Wood Dust	Known Human Carcinogen

Chronic Toxicity: Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
Specific Target Organ Toxicity, Single Exposure: May cause respiratory irritation.
Specific Target Organ Toxicity, Repeated Exposure: May cause damage to organs (respiratory system) through prolonged or repeated exposure.
Reproductive Toxicity: Not expected to cause reproductive or developmental effects.

SECTION 12 –ECOLOGICAL INFORMATION

Ecotoxicity: Not classified as environmentally hazardous.
Mobility: No data available.
Persistence and Degradability: No data available.
Bioaccumulative Potential: No data available.
Other Adverse Effects: No adverse environmental effects are expected.

SECTION 13 –DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Material should be recycled if possible. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14 –TRANSPORT INFORMATION

DOT: Not regulated as dangerous goods.
TDG: Not regulated as dangerous goods.

IMDG: Not regulated as dangerous goods.
IATA: Not regulated as dangerous goods.

SECTION 15 –REGULATORY INFORMATION

US Federal Regulations: This product is considered a manufactured article and is exempt under OSHA Hazardous Communication Standard 29 CFR 1910.1200. Wood dust generated by further processing is considered hazardous and regulated under the Hazard Communication Standard 29 CFR 1910.1200.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not Regulated

TSCA Toxic Substances Control

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

TSCA Chemical Action Plans, Chemicals of Concern

2,4'-Diphenyl Methane Diisocyanate (CAS 5873-54-1)	Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]
Methylene Bisphenol Isocyanate (MDI) (CAS 101-68-8)	Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]
Polymeric MDI (pMDI) (CAS 9016-87-9)	Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]

CERCLA Hazardous Substance List (40 CFR 302.4)

Methylene Bisphenol Isocyanate (MDI) (CAS 101-68-8)	Listed

EPCRA Section 304 Emergency Release Notification

Not Regulated

SARA Superfund Amendments and Reauthorization Act of 1986

Section 302 Extremely Hazardous Substance (40 CRF 355, Appendix A)

Not Listed

Section 311/312 Hazardous Chemical (40 CFR 370)

Classified Hazard: Combustible Dust

Categories

Immediate Health Hazard	Yes	Serious eye damage or irritation, respiratory sensitization, skin sensitization, organ toxicity (single exposure)
Delayed Health Hazard	Yes	Carcinogenicity, Specific target organ toxicity (repeated exposure)
Fire Hazard	Yes	
Pressure Release Hazard	No	
Reactivity Hazard	No	

Section 313 TRI Reporting (40 CRF 355, Appendix A)

Chemical Name	CAS Number	% by wt.
Methylene Bisphenol Isocyanate (MDI)	(CAS 101-68-8)	1 - 5

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Methylene Bisphenol Isocyanate (MDI) (CAS 101-68-8)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US State Regulations

California Proposition 65

WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust, or use a dust mask or other safeguards for personal protection. For more information go to: www.P65Warnings.ca.gov/wood

California Proposition 65 - CRT: Listed date/Carcinogenic substance

WOOD/WOOD DUST (CAS Not Assigned) Listed: December 18, 2009

California Candidate Chemicals List. Safer Consumer Products Regulations (CA Code Regs, tit. 22, 69502.3, subd. (a))

2,4'-Diphenyl Methane Diisocyanate (CAS 5873-54-1)
Methylene Bisphenol Isocyanate (MDI) (CAS 101-68-8)

Polymeric MDI (pMDI) (CAS 9016-87-9)

International Inventories

Country/Region	Inventory Name	Status
Canada	Domestic Substances List (DSL)	Complies with requirements
U.S. and P.R.	Toxic Substances Control Act (TCSA)	Complies with requirements

SECTION 16 –OTHER INFORMATION

Issuing Date: May 1, 2020
Expiration Date: May, 2023
6/2012 (original)
9/2015 (revision)
6/2016 (revision GHS)
5/2020 (revision State Regulations)

Further information
Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

HMIS® Ratings Health: 3*
Flammability: 1
Physical hazard: 0
NFPA Ratings Health: 2
Flammability: 1
Instability: 0

*indicates chronic health hazard

Disclaimer
The condition or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this reason, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use, or disposal of the product.