

8774 •

2100194	9709835
7500150	9709837
9704769	9709839
9704770	9710407
9707778	9710408
9708522	9710409
	9733513

V# 04SD37

Safety Data Sheet

Recycled Cellulose Paperboard Products

1. Product Identification

TRADE NAME (AS LABELED): Coated Recycled Board, Uncoated Recycled Board.

SYNONYMS: Classic CRB, AngelBrite®, Low Density CRB, Millennium® High Strength CRB, MillMask® CRB, DuraTote® High Strength CRB, DuraFreeze® High Strength CRB, DuraFrame® High Strength CRB, Plain Chip URB, Bending Chip URB, Dry Partition URB Rock Wall, Tube and Core URB, and Gypsum Liner URB.

CHEMICAL NAME/CLASS: Recycled Cellulose Paperboard.

2. Hazard Identification

Primary Safety/Health Hazards: Warning! Product may form combustible dust concentrations in air during processing. Specifically, in instances where product dust is suspended in air in sufficient concentrations in proximity to an ignition source. Paperboard as supplied and shipped does not constitute a dust hazard. Users of this product should examine the potential to generate dusts during handling and processing and related combustibility hazards and controls. See additional comments in MSDS.

Health hazards: Health hazards: Airborne paperboard dust generated during cutting or grinding operations has a low order of toxicity.

Primary Route(s) of Exposure: Inhalation, and/or eye contact with dust generated during cutting or grinding operations.

Medical Conditions Generally Aggravated by Exposure: Product dust generated during processing may aggravate pre-existing respiratory conditions or allergies.

Target organs: Eyes and respiratory system.

Signs and Symptoms of Exposure:

Acute Health Hazards: Not applicable for product in purchased form. However, if heated to extreme temperature, gasses released from the polymer coating may irritate the nasal passages, upper lung and eyes.

Chronic Health Hazards: Cellulose dust has not been shown to produce significant disease or toxic effects when exposure limits are met. Cellulose is poorly soluble and has a low order of toxicity.

Carcinogen status: Cellulose is not classified as a carcinogen by OSHA, NTP, or IARC in their reviews.

3. Composition and Information on Ingredients

Component	CAS#	EC#	Hazard Symbols; Risk Phrases	Wt %
Cellulose	65996-61-4	265-995-8	NA	75 - 88
Starch	9005-25-8	232-679-6	NA	0 - 3
Titanium dioxide	13463-67-7	236-675-5	NA	0-3
Kaolin	1332-58-7	310-194-1	NA	0-8
Polyethylene*	9002-88-4	NA	NA	0-8

*NOTE: These products consist of recycled cellulose and may be coated (polyethylene) or uncoated depending on the product chosen.

4. Emergency and First-Aid Procedures

Ingestion: Not likely to occur for product in purchased form.

Eye Contact: Cellulose and polymer dust may be irritating to the eyes. If heated to extreme temperature, gasses released from polymer coating will irritate the eyes, resulting in redness or watering. Flush with water. Get medical help if irritation persists.

Skin Contact: Not anticipated for product in purchased form, wash with mild soap and water.

Skin Absorption: Product is not known to be absorbed through the skin.

Inhalation: Not applicable for product in purchased form. However, if heated to extreme temperature gasses and dusts from processing may cause irritation in the nasal passages and upper lung. Remove to fresh air. Get medical help if persistent irritation, severe coughing or breathing difficulty occurs.

Note to Physician: No special advice, treat symptomatically.

HMS Rating (Scale 0-4): Health = 0 Fire = 1 Physical Hazard = 0

5. Fire and Explosion Data

Flash Point (Method Used): Not available for finished product.

Flammable Limits: LFL = **NOTE:** See below under "Unusual Fire and Explosion Hazards" UFL = Not available

Extinguishing Media: Use water, dry chemical, carbon dioxide or foam as appropriate for surrounding fire.

Autoignition Temperature: Cellulose: 450 - 572°F (232 - 300°C)

Special Firefighting Procedures: As in any fire wear NIOSH-approved self contained breathing apparatus and appropriate protective clothing.

Unusual Fire and Explosion Hazards: Product processing (e.g. fiberization) may result in the release of cellulose fibers. Boxboard or polymer coated board as supplied and shipped is highly unlikely to release sufficient dust to constitute a combustible dust explosion hazard. Depending on airborne concentration, moisture content, particle diameter, surface area and exposure to an ignition source, airborne cellulose dust may ignite and burn with explosive force in a contained area. Product dust may similarly deflagrate (combustion without detonation like a supersonic explosion) if ignited in an open or loosely contained area. The explosion hazard of cellulose dust should be evaluated based on the conditions at each location processing this material. Caution should be taken in the processing, shipping, handling and use of these materials, particularly if they are in a dry state and dust is produced. Reference NFPA standards 654, 69 and the NFPA *Fire Protection Handbook* for guidance.

NFPA Rating (Scale 0-4): Health = 0 Fire = 1 Reactivity = 0

6. Accidental Release Measures

Steps to be Taken In Case Material Is Released or Spilled: Sweep or vacuum up for recovery and disposal. Avoid creating dusty conditions whenever feasible. Maintain good housekeeping to avoid accumulation of cellulose dust on exposed surfaces. Use NIOSH approved filtering facepiece respirator ("dust mask") and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort.

Other Precautions: Minimize compressed air blowdown or other practices that generate high dust levels.

7. Handling and Storage

Precautions to be Taken In Handling and Storage: Minimize dust generation and accumulation. Keep in cool, dry place away from open flame and other sources of ignition. Maintain good housekeeping to avoid accumulation of cellulose dust on exposed surfaces. Cellulose dust may pose a combustible dust hazard.

Because of the size of the rolls and skids of sheets, physical hazards are a predominant risk. Safety shoes should be worn when moving rolls by hand or hand tools. Storage should be on flat, clean and even surfaces to prevent tipping over. All paper material should be stored away from open flames.

8. Exposure Control Measures, Personal Protection

Exposure Limits/Guidelines:

Name	CAS#	Percent	Agency	Exposure Limits	Comments
Cellulose (C ₆ H ₁₀ O ₅) _n	65996-61-4	75-88	OSHA	PEL-TWA 15 mg/m ³ (PNOR) ¹	Total dust
			OSHA	PEL-TWA 5 mg/m ³ (PNOR) ¹	Respirable dust
			ACGIH	TLV-TWA 10 mg/m ³ Cellulose	Total dust
Starch (C ₆ H ₁₀ O ₅) _n	9005-25-8	0-3	OSHA	PEL-TWA 15 mg/m ³	Total dust
			OSHA	PEL-TWA 5 mg/m ³	Respirable dust fraction
			ACGIH	TLV-TWA 10 mg/m ³	Total dust
Kaolin (Al ₂ O ₇ Si ₂)	1332-58-7	0-8	OSHA	PEL-TWA 15 mg/m ³	Total dust
			ACGIH	TLV-TWA 2 mg/m ³	Respirable fraction
Titanium Dioxide (TiO ₂)	13463-67-7	0-3	OSHA	PEL-TWA 15 mg/m ³	None
			ACGIH	TLV-TWA 10 mg/m ³	
Polyethylene (C ₂ H ₄) _n H ₂	9002-88-4	0-8	OSHA	15 mg/m ³ - total dust 5 mg/m ³ - respirable	PNOR
			OSHA		PNOR
			ACGIH	10 mg/m ³ - inhalable 3 mg/m ³ - respirable	PNOS PNOS

¹ OSHA particulate not otherwise regulated (PNOR)

² ACGIH particulate not otherwise specified (PNOS)

Personal Protective Equipment:

RESPIRATORY PROTECTION – Use NIOSH-approved filtering face piece respirator ("dust mask") and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort or symptom relief when fiberization of the linerboard occurs. Use respiratory protection in accordance with regulatory requirements such as the OSHA respiratory protection standard 29 CFR 1910.134.

8. Exposure Control Measures, Personal Protection (cont'd.)

PROTECTIVE GLOVES – Not required. However, cloth, canvas, or leather gloves are recommended to minimize potential mechanical irritation or cuts from handling product.

EYE PROTECTION – Approved goggles or tight fitting safety glasses are recommended when excessive exposures to dust may occur (e.g. during clean up) and when eye irritation may occur.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT – Not applicable for product in purchased form. Outer garments may be desirable in extremely dusty areas.

WORK/HYGIENE PRACTICES – Follow good hygienic and housekeeping practices. Clean up areas where cellulose dust settles to avoid excessive accumulation of this combustible material. Minimize compressed air blowdown or other practices that generate high airborne-dust concentrations.

Ventilation:

LOCAL EXHAUST – Provide local exhaust as needed so that exposure limits are met. Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above. Use local exhaust ventilation, and process enclosure if necessary, to control airborne dust. Ventilation to control dust should be considered where potential explosive concentrations and ignition sources are present. The design and operation of any exhaust system should consider the possibility of explosive concentrations of product dust within the system. See "SPECIAL" section below.

MECHANICAL (GENERAL) – Provide general ventilation in processing and storage areas so that exposure limits are met.

SPECIAL – Ensure that exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or suppression systems designed and operated in accordance with applicable standards if the operating conditions justify their use.

9. Physical/Chemical Properties

Physical Description: White paper sheets or rolls.

Boiling Point (@ 760 mm Hg):	Not applicable
Evaporation Rate (Butyl Acetate = 1):	Not applicable
Freezing Point:	Not applicable
Melting Point:	Not applicable
Molecular Formula:	Not applicable
Molecular Weight:	Not applicable
Oil-water Distribution Coefficient:	Not applicable
Odor Threshold:	Not available
pH:	Not applicable
Solubility in Water (% by weight):	Not applicable
Specific Gravity (H₂O = 1):	0.7-0.85
Vapor Density (air = 1; 1 atm):	Not applicable
Vapor Pressure (mm Hg):	Not applicable
Viscosity:	Not applicable
% Volatile by Volume (@ 70°F (21°C)):	Not applicable

10. Stability and Reactivity

Stability: Unstable Stable

Conditions to Avoid: Not applicable

Incompatibility (Materials to Avoid): Avoid open flame, sparks and other sources of ignition.

Hazardous Decomposition or By-Products: Combustion products include carbon monoxide, carbon dioxide and fine particulate in the form of smoke.

Hazardous Polymerization: May occur Will not occur

Sensitivity to Mechanical Impact: Not applicable

11. Toxicological Information

Toxicity Data: None available for product in purchased form.

Carcinogenicity:

IARC: Listed by IARC - Titanium dioxide component, Group 2B - possibly carcinogenic to humans. Classification is based on the physical characteristics of "unbound particles of respirable size". These products would not contain unbound particles of titanium dioxide.

NTP: Listed by NTP - No

OSHA: Listed by OSHA - No

Reproductive effects: Not available.

Teratogenic effects: Not available.

Mutagenic effects: Not available.

Target Organs: Respiratory system and eyes.

12. Ecological Information

Environmental Fate: Cellulose fiber slowly biodegrades in water (half life range 1mo - 1 yr in freshwater and coastal seawater). Cellulose fiber persists in arid soil (landfills). Polymer coatings are not biodegradable.

Environmental Toxicity: Not available.

13. Disposal Considerations

Waste Disposal Method: Dispose of in accordance with federal, state, and local regulations. Cellulose is not listed under any sections of the Resource Conservation and Recovery Act (RCRA) or Canadian National Pollution Release Inventory (NPRI). Follow all applicable federal, state, provincial and local regulations. It is the user's responsibility to determine proper disposal methods.

14. Transport Information

Mode: (Air, Land, water) Not regulated as a hazardous material by the U.S. Department of Transportation. Not listed as a hazardous material in Canadian Transportation of Dangerous Goods (TDG) regulations. Not listed as a hazardous material for IATA, and IMDG. Not listed as dangerous goods by the European Agreement concerning the international carriage of dangerous goods by road (ADR).

Proper Shipping Name:	Not applicable
Hazard Class:	Not applicable
UN/NA ID Number:	Not applicable
Packing Group:	Not applicable
DOT labels required:	Not applicable

15. Regulatory Information

TSCA: All ingredients of this product are either listed on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

CERCLA: This product does not contain ingredients which are subject to the reporting requirements of CERCLA.

DSL: All ingredients are listed on the Canadian Domestic Substance List.

European REACH: Cellulose is exempted because of listing in Annex IV of regulation (EC) No. 1907/2006. This product meets the conditions of an "article" as defined in REACH and is neither

15. Regulatory Information (cont'd.)

intended nor expected to be released under normal and reasonably foreseeable conditions of use. This product contains less than 0.1% of any Substance of Very High Concern (SVHC) listed in REACH. Therefore, none of the REACH pre-registration, registration, notification, and/or conditions of restrictions apply.

ENCS: Cellulose is not listed or is exempt from the Japanese Existing and New Chemical Substances List as regulated by the Ministry of International Trade and Industry.

OSHA: This product, as shipped, is not regulated as a OSHA hazardous chemical, however, cellulose dust is a regulated hazard under the OSHA Hazard Communication Standard [29 CFR 1910.1200] when it becomes mechanically processed and airborne.

STATE RIGHT-TO-KNOW:

California: This product does not contain substances identified on the Proposition 65 list that meet the listing criteria which would require a warning.

Pennsylvania: Substances on the Pennsylvania Workplace Hazardous RTK Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Titanium dioxide. Classification is based on the physical characteristics of "unbound particles of respirable size". These products would not contain unbound particles of titanium dioxide

SARA 313 Information: This product does not contain any chemical ingredient (s) that exceed the *de minimis* reporting levels established by SARA Title III, section 313 and 40 CFR section 372.

SARA 311/312 Hazard Category: This product has been reviewed according to the EPA "Hazard Categories: promulgated under SARA Title III, Sections 311 and 312 and is considered, under applicable definitions, to meet the following categories:

An immediate (acute) health hazard	No
A delayed (chronic) health hazard	No
A corrosive hazard	No
A fire hazard	No
A reactivity hazard	No
A sudden release hazard	No

WHMIS Classification: Not considered a controlled product.

16. Additional Information

Disclaimer:

The information and data herein are believed to be accurate and have been compiled by Safety and Occupational Health professionals from external sources believed to be reliable. Inovart provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose and use in compliance with all applicable laws and standards. Inovart will not be liable for claims relating to any party's use of or reliance on information and data contained herein.

16. Additional Information (cont'd.)

Definition of Common Terms:

ACGIH	= American Conference of Governmental Industrial Hygienists
C	= Ceiling Limit
CAS#	= Chemical Abstracts System Number
CERCLA	= Comprehensive Environmental Response, Compensation, and Liability Act
DOT	= U. S. Department of Transportation
DSL	= Domestic Substance List
EC50	= Effective concentration that inhibits the endpoint to 50% of control population
ENCS	= Japanese Existing and New Chemical Substances List
EPA	= U.S. Environmental Protection Agency
HMIS	= Hazardous Materials Identification System
IARC	= International Agency for Research on Cancer
IATA	= International Air Transport Association
IMDG	= International Maritime Dangerous Goods
LC50	= Concentration in air resulting in death to 50% of experimental animals
LCLo	= Lowest concentration in air resulting in death
LD50	= Administered dose resulting in death to 50% of experimental animals
LDLo	= Lowest dose resulting in death
LEL	= Lower Explosive Limit
LFL	= Lower Flammable Limit
MSHA	= Mine Safety and Health Administration
NA	= Not Applicable
NIOSH	= National Institute for Occupational Safety and Health
NFPA	= National Fire Protection Association
NPRI	= Canadian National Pollution Release Inventory
NTP	= National Toxicology Program
OSHA	= Occupational Safety and Health Administration
PEL	= Permissible Exposure Limit
PNOR	= Particulate Not Otherwise Regulated
PNOS	= Particulate Not Otherwise Stated
RCRA	= Resource Conservation and Recovery Act
REACH	= Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	= Short-Term Exposure Limit (15 minutes)
STP	= Standard Temperature and Pressure
TCLo	= Lowest concentration in air resulting in a toxic effect
TDG	= Canadian Transportation of Dangerous Goods
TDLo	= Lowest dose resulting in a toxic effect
TLV	= Threshold Limit Value
TSCA	= Toxic Substance Control Act
TWA	= Time-Weighted Average (8 hours)
UFL	= Upper Flammable Limit
WHMIS	= Workplace Hazardous Materials Information System