



Pregis Corporation

The brightest ideas in packaging

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MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **POLYETHYLENE FOAM PRODUCTS, Natural plus Colors**
Astro-Barrier™, Astro-Foam®, Astro-Foam® Renew™, Furniture Guard® Roll / Sheet products; PolyPlank® LAM, PolyPlank® MDL, PolyPlank® EXT, PolyPlank® SFT, PolyPlank® Renew™; Proflex® Profiles, Corner Keeper™, Edge Foam®

This MSDS pertains only to natural and/or pigmented products formulated without anti-static and/or fire retardant additives, adhesive components, or other specialty additives.

SUPPLIER: **Pregis Innovative Packaging, Inc.**
1650 Lake Cook Road, Suite 400
Deerfield, IL 60015

CONTACTS: Please contact your Pregis products sales associate or customer service associate: (1-800-834-9441).

2. COMPOSITION / HAZARDOUS INGREDIENTS INFORMATION

Some specific chemical identities being withheld as trade secrets, but will be revealed to health professionals per 29CFR1910.1200 (c).

<u>CAS NUMBER</u>	<u>SUBSTANCE</u>	<u>PERCENT BY WEIGHT</u>
	Polyethylene resin (1-Butene polymer with ethene, tris-nonylphenyl phosphite, polyethylene homopolymer, crystalline silica)	≥ 84 %
25087-34-7	Ethene/Butene Copolymer	
9002-88-4	Polyethylene Homopolymer	
75-28-5	Hydrocarbon Foaming Agents	≤ 5 %
106-97-8		
14807-96-6	Talc (Magnesium silicate)	≤ 4 %
67701-33-1	Foam Processing Aid, Monodiglycerides	≤ 2 %
Various	Organic and/or inorganic colorants, which may include carbon black pigment (which is thoroughly bound to the polymer matrix)	≤ 5 %

OSHA REGULATORY STATUS: This material is not classified as hazardous under OSHA regulations. However, this MSDS contains valuable information essential to the safe handling and use of the product. This MSDS should be retained and available for employees and other users of this product.

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3. **HAZARDS IDENTIFICATION**

EMERGENCY OVERVIEW: Odorless plastic foam in a variety of colors. Can burn in fire, releasing toxic vapors, gases, and fumes.

POTENTIAL HEALTH EFFECTS

EYE:	May cause slight irritation.
SKIN:	No hazard in normal industrial use.
INGESTION:	Ingestion unlikely, material physiologically inert.
INHALATION:	Inhalation at ambient temperatures unlikely except for dust from grinding, slitting, die cutting, etc. At elevated temperatures, fumes may cause irritation.
EFFECTS OF OVEREXPOSURE:	Inhalation of fumes from heated plastic may cause irritation of respiratory tract, chest discomfort, and/or dizziness. In rare cases, contact with sensitive individuals' skin may result in irritation or reddening of skin.
CARCINOGENICITY LISTINGS:	Crystalline silica: Classified 1 (Proven for human) by IARC, Classified 2 (Reasonably anticipated) by NTP

POTENTIAL ENVIRONMENTAL EFFECTS: The material should pose no significant hazard to the environment. See Section 12, "Ecological Information."

4. **FIRST AID MEASURES**

EYE CONTACT:	Flush eye with water for 15 minutes. Get medical attention if irritation persists.
SKIN CONTACT:	Wash contaminated skin with mild soap and water. Individuals experiencing skin sensitivity should obtain medical advice.
INHALATION:	If respiratory irritation occurs, remove affected personnel to fresh air. Obtain medical attention if irritation persists or is severe.
INGESTION:	Not considered a likely route of entry. Swallowing small quantities will not cause harm.

5. **FIRE-FIGHTING MEASURES**

FLAMMABLE PROPERTIES:	Not established for product as a whole
EXTINGUISHING MEDIA:	Dry chemical, carbon dioxide, water, foam
FIRE & EXPLOSION HAZARDS:	Polyethylene is combustible. Pregis's polyethylene foam also contains some residual flammable blowing agent that might accumulate in confined spaces to produce concentrations in the explosive range. Processes such as grinding could produce fine dust and flammable vapors. Both could be potential explosion hazards.
FIREFIGHTING EQUIPMENT:	Wear full bunker gear including a positive pressure self-contained breathing apparatus.
HAZARDOUS DECOMPOSITION PRODUCTS:	Temperatures above 480°F could cause product degradation potentially producing toxic vapors.

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6. ACCIDENTAL RELEASE MEASURES

No special measures are necessary beyond good general housekeeping.

7. HANDLING AND STORAGE

HANDLING: Further processing of polyethylene foam products with any fabrication processes such as slitting, grinding, skiving, sawing, routing, or die cutting that cuts cells can release residual flammable blowing agent. A flammable concentration could accumulate, if air is not properly circulated. All sources of ignition should be prevented in areas where foam is fabricated. Humidifiers or ionized air blowers can be used to reduce the possibility of static spark.
Grinding equipment and any bins or hoppers should be purged with a positive airflow to dissipate any build up of blowing agent gases. Monitoring systems should be in place to insure that a concentration of blowing agent does not accumulate during shutdowns or malfunctions.
For hot wire cutting or thermal welding airflow should be provided to adequately disperse potential blowing agent build up.

STORAGE: Always store polyethylene foam products in well-ventilated areas. Always keep foam products away from excessive heat and any sources of ignition such as sparks or flame. Never store foam in confined areas or sealed-off compartments. Foam scrap or fabricated parts for disposal should be stored and shipped in ventilated containers.

OTHER PRECAUTIONS: Whenever possible ship polyethylene foam products in ventilated trailers. When opening doors and unloading foam shipments, extinguish all possible sources of ignition such as matches, cigarettes, sparks, and lighters. Allow air circulation into the trailer for ten minutes after opening trailer doors before unloading foam. Control any vapor or dust emissions that may be generated by further processing of product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION: Local ventilation should be provided, if product is further processed producing dust or fumes. General ventilation may also be used, but local ventilation is usually preferable. See also recommendation for ventilation in Section 7 to control potential release of flammable blowing agent.

RESPIRATORY PROTECTION: Not normally required. If product is being further processed producing dust or fumes, local ventilation should be provided. Respiratory protection is normally only to be used as a temporary measure until proper ventilation can be installed.

EYE PROTECTION: Not normally required, but is recommended if product is further processed.

SKIN PROTECTION: Not normally required. Wearing gloves is consistent with good industrial safety / hygiene practice.

GENERAL HYGIENE CONSIDERATIONS: There are no known health hazards associated with this material when used as recommended. The following general hygiene considerations are recognized as common, good industrial hygiene practices:

- Wash hands after use and before eating,
- Avoid breathing dust, and
- Wear safety glasses.

EXPOSURE GUIDELINES: Polyethylene foam: Not established for product as a whole.
Polyethylene: Nuisance dust TWA 10 mg/m³ total (ACGIH), Nuisance dust TWA 3 mg/m³ respirable (ACGIH), Nuisance dust PEL 15 mg/m³ total (OSHA), Nuisance dust PEL 5 mg/m³ respirable (OSHA)
Crystalline Silica: 0.05 mg/m³ TWA (OSHA, ACGIH)
Isobutane: 800 ppm TWA (NIOSH)
n-Butane: 800 ppm TWA (NIOSH, ACGIH)
Hydrous magnesium silicate: 2 mg/m³ TWA (NIOSH, ACGIH), 20 mppcf (millions of particles per cubic foot of air) PEL (OSHA), IDLH 1000 mg/m³ (NIOSH)

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Plastic foam in a variety of colors.
ODOR:	None
PHYSICAL STATE:	Solid
pH:	Not applicable
VAPOR PRESSURE:	Not applicable
VAPOR DENSITY:	Not applicable
BOILING POINT:	Not applicable
MELTING POINT:	220°F
SOFTENING POINT:	170°F
WATER SOLUBILITY:	Insoluble
SPECIFIC GRAVITY:	Not established for product as a whole. For polyethylene resin (major component) 0.87-1.05
AUTO-IGNITION TEMPERATURE:	Not established for product as a whole. For polyethylene resin (major component) 343°C (650°F)

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.):	Stable
CONDITIONS TO AVOID:	Extreme heat
INCOMPATIBILITY:	Strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS:	Temperatures above 480°F could cause product degradation potentially producing toxic vapors including carbon monoxide, olefinic, and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes, and/or alcohols.
HAZARDOUS POLYMERIZATION:	Will not occur

11. TOXICOLOGICAL INFORMATION

TOXICITY:	Not established for product as a whole. Polyethylene resin (main ingredient) not considered to be toxic to humans or animals. Rats inhaling polyethylene dust developed mild inflammatory changes in the lungs. Prolonged inhalation of thermal degradation products from polyethylene caused neurological effects in rats. Animal studies showed no adverse health effects on the digestive system when fed up to 20% polyethylene. No skin effects are expected from polymer contact. Subchronic (50 to 90 day) feeding studies conducted on rats, dogs, and swine showed no effects from dietary levels of 1 to 20% powdered and shredded polyethylene. IARC has listed polyethylene as a Group 3 substance (Not classifiable as to carcinogenicity to humans).
IRRITATION:	Skin contact not normally a problem. Inhalation at ambient temperatures unlikely except for dust from grinding. At elevated temperatures, such as produced by hot cutting, fumes may cause respiratory or eye irritation.
CARCINOGENIC COMPONENTS:	Crystalline silica (< 0.1%): IARC-classified 1 (Proven for human); NTP-Classified 2 (Reasonably anticipated). Target organ is the lung; California Proposition 65-listed carcinogen (respirable). Release of these materials may occur in small quantities during processing of the product, but is not expected to present a hazard.



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12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not established for product as a whole. For polyethylene resin (main ingredient) ecotoxicity is expected to be low and bioaccumulation is not expected to occur.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: If the material as supplied becomes a waste, dispose of in accordance with local, state, and federal laws and regulations. Contact your local or state environmental agency for specific rules.

RCRA INFORMATION: If the material as supplied becomes a waste, it does not meet the definition of a hazardous waste as defined under RCRA (40 CFR 261).

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION:	Not regulated
INTERNATIONAL SEA TRANSPORT / I.M.O.; I.M.D.G.:	Not regulated
INTERNATIONAL AIR TRANSPORT / I.A.T.A.; I.C.A.O.:	Not regulated
EUROPEAN ROAD & RAIL / A.D.R.; R.I.D.	Not regulated
CANADIAN TRANSPORT OF DANGEROUS GOODS:	Not regulated

15. REGULATORY INFORMATION

CERCLA 102A / 103:	None
TSCA 12(b):	Nonylphenol (a trivial component of polyethylene)
SARA III, Sec. 302	None
CALIFORNIA PROPOSITION 65:	No labeling required.
COALITION OF NORTHEAST GOVERNORS ("CONEG") legislative model for the reduction of toxics in packaging and CALIFORNIA TOXICS IN PACKAGING PREVENTION ACT	All shipping mailer packaging and packaging components, manufactured in the United States by Pregis Innovative Packaging, Inc., comply with the several United States' enacted provisions of the Coalition of Northeast Governors ("CONEG") legislative model for the reduction of toxics in packaging and the California Toxics in Packaging Prevention Act. Pregis Innovative Packaging, Inc.'s manufacturing practices prohibit the intentional introduction of cadmium(Cd), hexavalent chromium(Cr +6), lead (Pb), or mercury (Hg) into its products' formulations. Further, the cumulative total of all such metals' incidental concentrations does not exceed 100 parts per million (ppm).



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16. OTHER INFORMATION

None.

Tim Blotkamp
Regulatory Affairs

Information provided by sources external to our company and set forth herein is offered in good faith as accurate, but without guarantee. Safety precautions contained herein cannot anticipate all individual and unique situations. Conditions of use and suitability of the product for particular uses are beyond our control. All risks of use of the product are, therefore, assumed by the user, and we expressly disclaim all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Nothing herein is intended as recommendation for uses which infringe valid patents or as extension of license under valid patents. Appropriate warnings and safe handling procedures should be provided to users.

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