

T. Clear Corporation ProGuard[®]
Concrete Insulated Sheathing Panel
MATERIAL SAFETY DATA SHEET

The PRODUCT is a composite of RAW MATERIALS. We will treat this MSDS as a NUMBER-part document covering: (A) PART 1, and (B) PART 2, ETC.

(A) Util-A-Crete Concrete Backer Board

1. Product and Company Identification:

Product Name: ProTEC Concrete Structural Insulated Panel System

Manufacturer: Fin Pan Inc., Hamilton, OH 45015

Emergency Contact: 800-633-6444

2. Composition/Information on Ingredients:

<u>Chemical Name</u>	<u>WT%</u>	<u>TLV (mg/m³)</u>	<u>PEL (mg/m³)</u>	<u>CAS Number</u>
Expanded Clay Aggregate	30-55	(NE)	(NE)	(NE)
Portland Cement	25-35	10	5 (R)/15 (T)	65997-15-1
Crystalline Silica, respirable dust	<0.3	0.1	10 (R)/30 (T)	14808-60-7
Fly Ash	20-30	(NE)	(NE)	(NE)
Potable Water	10-15	(NE)	(NE)	7732-18-5
Fiberglass Mesh	<1	(NE)	(NE)	65997-17-3

(T) - Total (R) - Respirable (NE) - Not Established (P) - Proprietary

This document was prepared pursuant to the OSHA hazard communication standard (29 CFR 1910.1200). In addition, other substances not hazardous per this OSHA standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard. This part of the document has been taken from MSDS information supplied to us from THE MANUFACTURER.

3. Physical and Chemical Properties:

Boiling Point.....	Not Applicable
Melting Point.....	Not Applicable
Percent Volatile	Not Applicable
Vapor Pressure	Not Applicable
Vapor Density	Not Applicable
Evaporation Rate.....	Not Applicable
Solubility in water.....	Insoluble
Specific Gravity/Density	Not Applicable
Appearance	Hard gray board
Odor	Slight cement odor
Physical State	Stable solid

T. Clear Corporation ProGuard[®]
Concrete Insulated Sheathing Panel
MATERIAL SAFETY DATA SHEET

4. Fire and Explosion Hazard Data:

Flash PointNot Applicable
Flammable Limits LFLNone
Flammable Limits UFLNone
Extinguishing MediaWater spray, dry chemical, or carbon dioxide

Hazardous Combustion Products: None known.

Fire-fighting Instructions: Use appropriate extinguishing media for surrounding fire.

Protective Fire-fighting Equipment: No special equipment is necessary.

5. Reactivity Data:

Stability: Thermally stable at typical use temperatures.

Incompatibility with Other Materials: Avoid contact with strong acids.

Hazardous Decomposition Products: Gases from strong acid degradation.

Hazardous Polymerization: Will not occur.

6. Health Hazard Data:

Eye: Due to alkali in the cement, contact with eyes will cause irritation and possible corrosion damage, burning and corneal edema. Particles will also cause mechanical irritation.

Skin Contact: Abrasion and skin irritation may occur due to alkali in the cement.

Ingestion: If ingested, caustic burns may occur in the mouth, esophagus or stomach. May be corrosive to the digestive tract.

Inhalation: Excessive exposure to dust may result in irritation of nose, throat and lungs.

Systemic (Other Target Organ) Effects: None known.

Cancer Information: Chronic exposure to dust containing silica (Quartz Crystobalite and Tridymite) can cause delayed lung injury (Silicosis) or cancer. Inhalation of Crystalline Silica may contribute to pre-existing pulmonary diseases, such as asthma and lung disorders associated with the smoking of tobacco.

Teratology (Birth Defects): None known.

Reproductive Effects: None known.

T. Clear Corporation ProGuard[®]
Concrete Insulated Sheathing Panel
MATERIAL SAFETY DATA SHEET

7. First Aid:

Eyes: Immediately flush eye, including under lids, thoroughly with water for 15 minutes to remove all particles. If irritation persists, consult physician.

Skin: Wash thoroughly with soap and water. If irritation remains, seek medical attention. If cement penetrates the clothing, promptly remove the clothing and wash skin. Wash clothing before wearing again.

Ingestion: Seek medical attention immediately. The use of diluents is controversial and neutralization is contraindicated.

Inhalation: Remove to fresh air. Leave the area of dust exposure and remain away until coughing and other symptoms subside.

8. Handling and Storage:

Handling: Maintain good housekeeping.

Storage: Keep clean, dry and flat.

9. Accidental Release Measures: (See Section NUM for Regulatory Information)

Containment Procedures: Due to the physical nature of this product, spills are not possible.

Evacuation Procedures: None.

Cleanup Procedures: Normal clean up methods.

Special Procedures: None.

10. Exposure Controls/Personal Protection:

Respiratory Protection: If product is cut with a power saw, the saw must be equipped with a dust collector and wear a NIOSH/MSHA-approved respirator if the dust level in the work area is above the TLV or PEL. Provide general mechanical ventilation and local exhaust to meet TLV requirements. Hand score and snap to avoid creating excess dust.

Skin Protection: Wear gloves and work clothing or apron.

Eye Protection: Wear safety glasses or goggles with shields while cutting.

Contact lenses should not be worn when working with Portland cement.

11. Toxicological Information:

Mutagenicity: None known.

12. Ecological Information:

Movement & Partitioning: No bioconcentration is expected.

T. Clear Corporation ProGuard®
Concrete Insulated Sheathing Panel
MATERIAL SAFETY DATA SHEET

Degradation & Persistence: No appreciable biodegradation or photodegradation is expected.

Ecotoxicity: When handled and disposed of properly, this product does not present an environmental threat.

13. Disposal Considerations:

Disposal: Dispose of waste in accordance with Federal, State and Local regulations.

For unused & uncontaminated product, pickup and reuse clean material.

14. Transportation Information:

Department of Transportation (DOT): This product is not regulated by the D.O.T. when shipped domestically by land.

Canadian TDG Information: This product is not regulated by the T.D.G. when shipped domestically by land.

15. Regulatory Information: (Not meant to be all-inclusive - selected regulations represented)

NOTICE: The information contained herein is based on data considered to be accurate. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with Federal, State/Provincial, and local laws. While the information is believed to be reliable, NO Warranty, expressed or implied, is given in regards to the accuracy of this data or the results to be obtained from the use thereof. Since the use of this information and the conditions and use of this product are controlled by the user, it is the user's obligation to determine the conditions of safe use of the product. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

16. Other Information:

National Fire Protection Association (NFPA) Ratings:

Health.....1
Flammability.....0
Reactivity.....0

HMIS Ratings:

Health.....1
Flammability.....0
Reactivity.....0

T. Clear Corporation ProGuard[®]
Concrete Insulated Sheathing Panel
MATERIAL SAFETY DATA SHEET

Personal Protection 0

0 = Minimal Hazard 1 = Slight Hazard 2 = Moderate Hazard
3 = Serious Hazard 4 = Severe Hazard

(B) STYROFOAM[®] EXTRUDED POLYSTYRENE THERMAL INSULATION

1. Product and Company Identification

Product Name: STYROFOAM[®] 1, 1.5 or 2 x 36 x 96 inch Panel Core 40 Extruded
Foam Insulation (Product Code: 97824, MSD: 006839)
Manufacturer: The Dow Chemical Company, Midland MI 48674 (800-258-2436)
Emergency Phone: 989-636-4400

2. Composition/Information on Ingredients:

<u>Chemical Name</u>	<u>CAS Number</u>
Polystyrene	009003-53-6
Chlorodifluoroethane.....	000075-68-3
Copolymer mixtures	
Hologenated flame retardant	

This product may contain additives (such as magnesium silicate, CAS # 14807-96-6) generally at levels <1.5% maximum.

This document was prepared pursuant to the OSHA hazard communication standard (29 CFR 1910.1200). In addition, other substances not hazardous per this OSHA standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard. This part of the document has been taken from MSDS information supplied to us from The Dow Chemical Company.

3. Physical and Chemical Properties:

Boiling PointNot Applicable
Vapor Pressure.....Not Applicable
Vapor DensityNot Applicable
Solubility in waterNone
Specific Gravity/Density.....0.027 to 0.064
Appearance.....Blue Rigid Cellular Foam Board
OdorNo Odor

4. Fire and Explosion Hazard Data:

Flash Point670°F/354°C Flash Ignition Temperature
Method UsedASTM D1929 Proc. B.
Flammable Limits LFL.....Not Applicable
Flammable Limits UFLNot Applicable

T. Clear Corporation ProGuard®
Concrete Insulated Sheathing Panel
MATERIAL SAFETY DATA SHEET

Extinguishing MediaFoam, Water, Carbon Dioxide, Dry Chemical

Hazardous Combustion Products: In smoldering or flaming conditions, carbon monoxide, carbon dioxide and carbon are generated. Evolution of small amounts of hydrogen halides occurs when burned or heated above 250°C (480°F). Under fire conditions polymers decompose. The smoke may contain polymer fragments of varying compositions in addition to unidentified and/or irritating compounds. Studies have shown that the products of combustion of this foam are not more acutely toxic than the products of combustion of common building materials, such as wood.

Fire-fighting Instructions: Keep people away. Isolate fire area and deny unnecessary entry. If material is molten, do not apply direct water stream. Use fine water spray or foam. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone.

Protective Fire-fighting Equipment: Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots and gloves). If protective equipment is not available or not used, fight fire from protected location or safe distance.

5. Reactivity Data:

Stability: Thermally stable at typical use temperatures.

Conditions To Avoid - Avoid direct sunlight. Maximum use temperature is 73°C (165°F). Avoid temperatures over 300°C (572°F). Product can decompose at elevated temperatures.

Incompatibility with Other Materials: Avoid contact with oxidizing materials. Avoid contact with aldehydes, amines, esters, liquid fuels, and organic solvents.

Hazardous Decomposition Products: Does not normally decompose. Evolution of small amounts of hydrogen halides occurs when heated above 250°C. Under high heat, non-flaming conditions, small amounts of aromatic hydrocarbons such as styrene and ethylbenzene are generated. Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Hazardous decomposition products may include and are not limited to ethylbenzene, aromatic compounds, aldehydes, hydrogen bromide, hydrogen chloride, hydrogen fluoride, polymer fragments, and styrene.

Hazardous Polymerization: Will not occur.

T. Clear Corporation ProGuard[®]
Concrete Insulated Sheathing Panel
MATERIAL SAFETY DATA SHEET

6. Health Hazard Data:

Eye: Solid or dust may cause irritation or corneal injury due to mechanical action.

Skin Contact: Essentially nonirritating to skin. Mechanical injury only. Skin absorption is unlikely due to the physical properties.

Ingestion: Single dose oral toxicity is considered to be low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. May cause choking or blockage of the digestive tract if swallowed.

Inhalation: Dust may cause irritation to the upper respiratory tract (nose and throat). Vapors/fumes released during thermal operations such as hot wire cutting may cause eye and respiratory irritation. High concentrations of the blowing agents (>5000 ppm) may cause central nervous system, anesthetic or narcotic effects and cardiac sensitization (irregular heartbeats). Concentrations of the blowing agents anticipated incidental to proper handling are expected to be well below guidelines. In animals, excessive exposure to chlorodifluoroethane (HCFC-142b) has caused low blood pressure, respiratory stimulation and chest tightness (bronchial constriction).

Systemic (Other Target Organ) Effects: Based on available data, repeated exposures to dusts of this material are not anticipated to cause significant adverse effects.

Cancer Information: Neither polystyrene foam dust, nor chlorodifluoroethane (HCFC-142b) caused cancer in long-term animal studies.

Teratology (Birth Defects): Contains component(s) which did not cause birth defects in laboratory animals. The component(s) is/are dichlorofluoroethane (HCFC-142b).

Reproductive Effects: No relevant information found.

Mutagenicity (Effects on Genetic Material): For the minor component(s) dichlorofluoroethane (HCFC-142b), in vitro mutagenicity studies were negative in some cases and positive in other cases. Animal mutagenicity studies were negative.

7. First Aid:

Eyes: Flush eyes with plenty of water; mechanical effects only.

Skin: Wash off in flowing water or shower.

T. Clear Corporation ProGuard[®]
Concrete Insulated Sheathing Panel
MATERIAL SAFETY DATA SHEET

Ingestion: If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Note to Physician: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient. Exposure may increase “myocardial irritability.” Do not administer sympathomimetic drugs unless absolutely necessary.

8. Handling and Storage:

Handling: Maintain good housekeeping. Layers of flammable dusts should not be permitted to accumulate. See Section 9, Exposure Controls/Personal Protection.

WARNING: In order to prevent buildup of combustible vapors, do not store large quantities of this product in unventilated spaces. Transport bulk shipments of this product in ventilated vehicles.

Storage: Flammable vapors may accumulate in some storage situations. Storage, use and handling areas should be “No Smoking” areas. See Section 9, Exposure Controls/Personal Protection.

Minimize sources of ignition, such as static buildup, heat, spark or flame.

When storing or fabricating large quantities of extruded polystyrene foam, the blowing agents (i.e. chlorodifluoroethane) released from the foam, if any, may thermally decompose to hydrogen chloride, which tends to accelerate corrosion or rust development of heaters, boilers, gas fired recirculating air furnaces or heaters, or gas water heaters.

This polystyrene foam plastic product is combustible and should be protected from flame and other high heat sources. It should be installed with code-acceptable thermal barriers or used in approved alternative constructions.

9. Accidental Release Measures (See Section 13 for Regulatory Information):

Protect People: Clear non-emergency personnel from area. Use appropriate safety equipment. For additional information, refer to Section 10, Exposure Controls/Personal Protection.

Protect the Environment: Firewater run off may be toxic.

Cleanup: Pick up, or if dust or in small pieces, sweep up and place in suitable container for disposal. See Section 11, Disposal Considerations.

T. Clear Corporation ProGuard[®]
Concrete Insulated Sheathing Panel
MATERIAL SAFETY DATA SHEET

10. Exposure Controls/Personal Protection:

Engineering Controls: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, including but not limited to saw, router, or hot wire cutting, use an approved air-purifying respirator. In dusty atmospheres, use an approved dust respirator.

Skin Protection: No precaution other than clean body-covering clothing should be needed.

Eye Protection: Use Safety Glasses. If there is a potential for exposure to particles, which could cause mechanical injury to the eye, wear chemical goggles.

Exposure Guideline(s): 1-Chloro-1, 1-difluoroethane (HCFC-142b): AIHA WEEL is 1000 ppm, TWA.

11. Ecological Information:

Movement & Partitioning: No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material is expected to float. Based largely or completely on information for flame retardant. There is no evidence of any significant leaching. Therefore, it is unlikely to contaminate groundwater.

Degradation & Persistence: Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected. Based largely or completely on information for blowing agent. Chlorodifluoroethane (HCFC-142b) remains in the foam and diffuses out slowly, most of it degrading in the troposphere to CO₂, HCl, and HF. Chlorodifluoroethane (HCFC-142b) has a stratospheric ozone depletion potential (ODP) of 0.065, relative to CFC 12 (ODP=1).

Ecotoxicity: Not expected to be acutely toxic.

12. Disposal Considerations (See Section 13 for Regulatory Information):

Disposal: All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

T. Clear Corporation ProGuard[®] Concrete Insulated Sheathing Panel

MATERIAL SAFETY DATA SHEET

For unused & uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, re-claimer, incinerator or other thermal destruction device, landfill.

For additional information, refer to Section 7, Handling & Storage Information.

The Dow Chemical Company can provide names of information resources to help identify waste management companies and other facilities, which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Call Dow Customer Information at 800-258-2436 or 989-832-1556 for further details.

13. **Transportation Information:**

Department of Transportation (DOT): This product is not regulated by the DOT when shipped domestically by land.

Canadian TDG Information: This product is not regulated by the TDG when shipped domestically by land.

14. **Regulatory Information:** (Not meant to be all-inclusive - selected regulations represented)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the review date of 01/13/04. However, NO Warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with Federal, State/Provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

U.S. Regulations

SARA 313 Information: This product contains the following substances subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Concentration</u>
Chlorodifluoroethane	000075-00-3	< 15%

SARA Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" promulgated under sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA, Title III) and is considered, under applicable definitions, to meet the following categories:

T. Clear Corporation ProGuard[®] Concrete Insulated Sheathing Panel

MATERIAL SAFETY DATA SHEET

Not to have met any hazard category.

State Right-to-Know: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

Chemical Name	CAS Number	List
Chlorodifluoroethane	000075-00-3	NJ2 PA1 NJ3
Talc	014807-96-6	PA1 NJ3

NJ2=New Jersey Environmental Hazardous Substance (present at greater than or equal to 1.0%)

NJ3=New Jersey Workplace Hazardous Substance (present at greater than or equal to 1.0%)

PA1=Pennsylvania Hazardous Substance (present at greater than or equal to 1.0%)

OSHA Hazard Communication Standard: This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Canadian Regulations

WHMIS Information: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

This Product is not a "Controlled Product" under WHMIS.

Canadian Environmental Protection Act (CEPA): All substances in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

15. Other Information

National Fire Protection Association (NFPA) Ratings

Health.....0
Flammability.....1
Reactivity0