



423 McFarlan Road  
Kennett Square, PA 19348  
**R-50 VIP ROOF/WALL PANEL**

Phone: 888-483-2880  
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# RICH-E-BOARD PANEL - SDS

Administrator  
R-50 Systems LLC

# Barrier Film

*The customer is only exposed to the barrier film. Thermal Visions recommends that if a panel failure occurs, the panel be returned to Thermal Visions in the barrier film for remanufacture*

## Safety Data Sheet

### Section 1 – Product Identification

Manufacturer Name: Thermal Visions, Inc.	Emergency Telephone Number: 740-973-3671 Day
Address (Number, Street, City, and Zip Code) 83 Stonehenge Dr., Granville, OH 43023	Chemical Name and Synonyms N/A
	Product Name CLC617
	Chemical Family Metalised polyesters and EVOH layers laminate
	Date Prepared 07/31/09

### Section 2 - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity common Name(s))	OSHA PEL	ACGIH TLV	Other limits Recommended	% (optional)
Thermal Visions Item CLC617 (Polyesters, Aluminum, EVOH) Polyester film is made from polyethylene terephthalate, CAS # 25038-59-9. Ethylene copolymer-vinyl alcohol, CAS # 26221-27-2 Polyurethane cured adhesive.	N/A	N/A	N/A	100
Boiling Point	N/A	Density	0.88-1.41g/cm <sup>3</sup>	
Vapor Pressure (mm Hg)	N/A	Softening Point	N/A	
Vapor Density(Air=1)	N/A	Evaporation Rate (Butyl Acetate=1)	N/A	

Solubility in Water

Insoluble

Appearance and Odor

No Odor

### Section 3 - Fire and Explosion Hazard Data

Flash Point (Method Used) N/A	Flammable Limits N/A	LEL N/A	UEL N/A
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Extinguishing Media

Water fogs, foam, dry chemicals, carbon dioxide, carbon monoxide, terphthalate acid, and aldehydes.

**Special Fire Fighting Procedures**

As appropriate for surrounding material equipment. Film remaining in contact with flame will ignite and continue to burn slowly, dropping flaming liquid, which can spread the fire. If flame source is stationary, the film will shrink away and self extinguish.

**Unusual Fire Explosion Hazards**

Combustion or thermal decomposition yields Terphthalic Acid, Carbon Dioxide, Carbon Monoxide, Hydrogen chloride gas, small molecular weight Alcohols/Aldehydes.

**Section 4 - Reactivity Data**

Stability	Unstable		Conditions to Avoid Contact with strong acids and bases, high temperatures
	Stable	X	

Incompatibility (Material to Avoid)

Strong Acids and Bases

Hazardous Decomposition or Byproducts

Above the decomposition temperature the major volatiles will be terphthalic acid, Carbon dioxide, carbon monoxide and small molecular weight alcohols / aldehydes.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

**Section 5 - Health Hazards Data**

Routes of Entry	Inhalation?	Skin?	Ingestion?
	NO	NO	Not Likely
Health Hazards(Acute and Chronic)	None		

Carcinogenicity:	NTP.?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure:  
N/A

Medical Conditions  
Generally Aggravated by Exposure

Emergency and First Aid Procedures  
not required

**Section 6 - Precautions for Safe Handling and Use**

Steps to be Taken in Case Material is Released or Spilled  
Pick up film to prevent slipping hazard

Waste Disposal Method  
Dispose of in accordance with Federal, State and local regulations.

Precautions to be taken in handling and Storing  
No anticipated hazards under conditions normally accoutered

Other Precautions

## Section 7 - Control Measures

Respiratory Protection (Specify Type)  
not required

Ventilation	Local Exhaust At Temp. Over 235°C	Special N/A
NORMAL	Mechanical (General) N/A	Other N/A

Skin Contact  
If symptoms develop, obtain medical attention.

Eye Protection  
Irrigate with eyewash solution or clean water, holding the eyelids apart.

Other Protective Clothing or Equipment  
not required

Work/Hygienic Practices  
N/A

**THRESHHOLD™ Core Material**  
*Customer is not exposed unless they remove the barrier film*

**Safety Data Sheet**

**Section 1 - Product Identification**

Trade Name:	THRESHHOLD™ (Glass microfiber nonwoven mats)
Manufacturer:	Thermal Visions, Inc.
Address:	83 Stonehenge Rd. Granville, Ohio 43023
Phone:	740-973-3671

**Section 2 - Product Ingredients**

Ingredients:	Borosilicate Glass (CAS# 65997-17-3)
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**Section 3 - Physical Data**

Boiling Point (°F):	Not Applicable
Vapor Pressure (mm Hg):	Not Applicable
Vapor Density (Air + 1):	Not Applicable
Evaporation Rate (Butyl Acetate = 1):	Not Applicable
Specific Gravity (H <sub>2</sub> O = 1):	2.48 - 2.55
Water Solubility (%):	Negligible
Softening or Melting Point (°F):	1260 - 1380
Appearance and Odor:	White, odorless staple fiber

**Section 4 - Fire & Explosion**

Flash Point (Method):	Nonflammable
Extinguishing Media:	No fire hazard
Fire Fighting Procedures:	Not Applicable
Fire and Explosion Hazards:	Not Applicable

**Section 5 - Reactivity Data**

Stability:	Material is stable. No hazardous reactions are expected.
Chemical Incompatibilities:	Hydrofluoric Acid
Conditions to Avoid:	None in designed use
Hazardous Decomposition Products:	Not Determined
Hazardous Polymerization:	Material does not polymerize

## Section 6 - Health Hazards

A. Threshold Limit Value (TLV), and Permissible Exposure Limit (PEL):

<u>OSHA</u>	<u>NIOSH</u>	<u>ACGIH</u>	<u>EPA</u>	<u>Thermal Visions Exposure Guideline</u>
10 mg/m <sup>3</sup>	3 fibers/cc	10 mg/m <sup>3</sup>	none	1 fibers/cc

B. Route(s) of Exposure: Inhalation, skin, eye contact, ingestion

C. Effects of Overexposure:

Inhalation: Pre-existing respiratory or lung diseases may be aggravated.  
Mild irritation to upper respiratory tract.

Skin: Fibers larger than 5 microns in diameter may cause mild irritation.

Eyes: Irritation

Ingestion: May cause minor, temporary irritation.

D. First Aid/Emergency Procedures:

Inhalation: Remove to fresh air. If irritation persists, obtain medical attention.

Skin: Wash with soap in cool salt water. If irritation persists, obtain medical attention.

Eyes: Flush eyes with water for 15 minutes and obtain medical attention.

Ingestion: Remove from situation where ingestion occurs. If irritation persists beyond 24 hours, seek medical attention.

E. Chronic Health Effects:

Man-made vitreous fibers in the form of wools have been widely used in thermal and acoustical insulation and in other manufactured products in Europe and North America for over 50 years. These products including glass wool, rock (stone) wool and slag wool have been extensively studied to establish whether fibers released during manufacture, use, or removal of these product present a risk of cancer when inhaled. The preponderance of epidemiologic studies published provide no evident of increased risks of lung cancer or of mesothelioma from occupational exposures during manufacture of these materials and inadequate evidence overall of cancer risk. The more commonly used vitreous fiber wools including insulation glass wool, rock wool and slag wool are now considered by IARC (International Agency for Research) not classifiable as to carcinogenicity to humans (i.e. classified as Group 3).

## Section 7 - Spill or Leak Procedures

Procedure for spill or leak: Not Applicable

Waste Disposal Method: Comply with Federal, State, and/or local disposal-landfill regulations.

Handling and Storing Precaution: For optimal use, keep in dry environment.

## Section 8 - Personal Protection Information

Where excessive inhalation and handling occur, requirements for personal protective equipment shall be as approved under the provisions of 24 CFR 1910, subpart 1:

- Inhalation: Where the concentration of airborne fibers exceed 1 fiber/cc, local ventilation and half face piece NIOSH approved HEPA respirators are recommended.
- Skin: Protective clothing should be worn to prevent contact with skin.
- Eyes: Eye protection should be worn to prevent contact with eyes.
- Washing: To remove glass fibers from skin, wash with lukewarm water and soap. Wash exposed clothing separately from other clothes.

# Desiccant

*Customer is not exposed unless they remove from the barrier film*

## Safety Data Sheet

**Effective Date** September 17, 2002

**MSDS Number** M143

### Section 1 – Product and Company Information

**Product Name:** StripPax, Calcium oxide

**Product Use:** Desiccant, absorbent

**Grades:** Calcium oxide

**Synonyms:** Quicklime, burnt lime, unslaked lime, calcia, calx, pebble lime, CaO

**Company;** Multisorb Technologies, Inc.

**Street Address:** 325 Harlem Road

**City, State, Zip, Country:** Buffalo, NY 14224-1893 USA

**Telephone Number:** (716) 824 8900 [USA] Monday - Friday (8:00 - 5:00 EDT)

**Fax Number:** (716) 824 4091 [USA]

**Website:** multisorb.com

### Section 2 – Composition / Information on Ingredients

Component Name	CAS Number	% by Weight
Calcium oxide	1305-78-8	85 - 95
High density polyethylene fiber	9002-88-4	5 - 15

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

### Section 3 – Hazard Identification

**Emergency Overview:** A white packet containing white granular material that poses little or no immediate hazard. This material is not combustible.



**Potential Health Effects:**

**Eyes:** None

**Skin:** None

**Ingestion:** Ingestion is unlikely, but if ingested, blockage may occur. This product gets hot as it absorbs moisture and burns to moist body tissue can result. Get medical attention.

**Inhalation:** None

**Medical Effects Generally** None

**Aggravated by Exposure:**

**Chronic Effects/Carcinogeny:** None

**Section 4 – First Aid Measures**

**Eyes:** Rinse the eyes well with water while lifting the eye lids. If irritation persists, consult a physician.

**Skin:** Wash affected area with soap and water.

**Ingestion:** Ingestion is unlikely, but if ingested, blockage may occur. This product gets hot as it absorbs moisture and burns to moist body tissue can result. Give large quantities of water or milk to the person to drink. Do not give anything by mouth to an unconscious person. Get medical attention.

**Inhalation:** Remove the affected person to fresh air and get medical attention if necessary.

**Notes to Physician:** Not applicable

**Section 5 – Fire Fighting Measures**

**Flammable Properties:** Not flammable

**Flash Point:** Not applicable

**Method:** Not applicable

**Flammable Limits:** Not flammable

**Lower Flammability Limit:** Not applicable

**Upper Flammability Limit:** Not applicable

**Autoignition Temperature:** Not applicable

**Hazardous Combustion Products:** Not applicable

**Extinguishing Media:** Use extinguishing media that is appropriate for the surrounding fire. Calcium oxide is not combustible but the high density polyethylene fiber is combustible.

**Fire Fighting Instructions:** The Calcium oxide is not combustible, but the high density polyethylene fiber packaging is combustible.

**Unusual Fire and Explosion Hazards:** Calcium oxide can generate heat as it absorbs moisture. If enough calcium oxide is present, the temperature can approach the burning temperature of paper. If this happens, flood the product with water to reduce the temperature.

#### Section 6 – Accidental Release Measures

**Spill:** Sweep or vacuum up and place the spilled material in a waste disposal container. Avoid raising dust. Wash with soap and water after handling.

#### Section 7 – Handling and Storage

**Handling:** Avoid handling the packets in a manner that may break or tear the packets open. Practice good hygienic work practices.

**Storage:** Store in a cool, dry location. Keep in sealed containers away from moisture. The calcium oxide will readily adsorb moisture.

#### Section 8 – Exposure Controls/Personal Protection

**Engineering Controls:** Not required.

**Respiratory Protection:** Not required.

**Skin Protection:** Light gloves will protect against abrasion and drying of the skin.

**Eye Protection:** Not required.

Component Name	OSHA PEL	Exposure Limits ACGIH TLV	Other Recommended Limits
Calcium oxide	TWA 5mg / m <sup>3</sup>	TWA 2 mg / m <sup>3</sup>	NIOSH REL TWA 2 mg / m <sup>3</sup> IDLH 25 mg / m <sup>3</sup>

#### Section 9 – Physical and Chemical Properties

<b>Appearance:</b>	White packets	<b>Vapor Density:</b>	Not applicable
<b>Odor:</b>	None	<b>Boiling Point:</b>	5162° F (2850° C) (Calcium oxide)
<b>Physical State:</b>	White packets	<b>Melting Point:</b>	275° F (135° C) (high density polyethylene fiber)
<b>PH:</b>	Not applicable	<b>Solubility:</b>	Insoluble in water
<b>Vapor Pressure:</b>	Not applicable	<b>Specific Gravity:</b>	3.4 (Calcium oxide)

### Section 10 – Stability and Reactivity

**Stability:** Stable in sealed containers.

**Conditions to avoid:** Moisture and high humidity environments.

**Incompatibility:** Water, ethyl alcohol, boric acid, calcium chloride and interhalogens.

**Hazardous Decomposition Products:** None

**Hazardous Polymerization:** Will not occur

### Section 11 – Toxicological Information

This product and its components are not listed on the IARC, NTP or OSHA Carcinogen lists.

**LD<sub>50</sub> / LC<sub>50</sub>** Not available **Epidemiology**

No data available **Teratogenicity** No

data available **Reproductive Effects** No

data available **Neurotoxicity** No data

available

**Mutagenicity** No data available

### Section 12 – Ecological Information

**Ecotoxicity** Mosquito fish, TLm:240 ppm / 24 hours, Sunfish, 100 ppm / 3 hours is toxic. Vector snail, 300 ppm / 24 hours is lethal.

**Environmental Fate** No information reported

**Physical / Chemical** No information available

## Section 13 – Disposal Information

**Disposal Information** If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Materials of a hazardous nature that contact the product during normal use may be retained on the product. The user of the product must identify the hazards associated with the retained material in order to assess the waste disposal options. Dispose according to federal, state and local regulations.

## Section 14 – Transportation Information

**U.S. Department of Transportation Shipping Name:** Shipping name: Calcium oxide  
Hazard Class: 8  
UN Number: UN1910  
Packing Group: III

**IMO** No information available

**IATA** No information available

**RID / ADR** No information available

**Canadian TDG** No information available

## Section 15 – Regulatory Information (Not meant to be all inclusive - selected regulations represented)

**TSCA Listed:** Yes

**DSL/NDSL (Canadian) Listed:** Yes

**OSHA:** PEL TWA 5 mg / m<sup>3</sup>

**NIOSH:** REL TWA 2 mg / m<sup>3</sup> IDLH 25 mg / m<sup>3</sup>

**ACGIH:** TWA 2 mg / m<sup>3</sup>

## Section 16 – Other Information

## HMIS – Hazardous Materials Identification System

HMIS Rating	
Health	1
Flammability	0
Reactivity	1

**0 - minimal hazard, 1 - slight hazard, 2 - moderate hazard, 3 - serious hazard, 4 - severe hazard**

This MSDS was prepared by: George E. Mckedy  
Senior Applications Development Specialist  
Multisorb Technologies, Inc.

This data and recommendations presented in this data sheet concerning the use of our product and the materials contained therein are believed to be correct but does not purport to be all inclusive and shall be used only as a guide. However, the customer should determine the suitability of such materials for his purpose before adopting them on a commercial scale. Since the use of our products is beyond our control, no guarantee, expressed or implied, is made and no responsibility assumed for the use of this material or the results to be obtained therefrom. Information on this form is furnished for the purpose of compliance with Government Health and Safety Regulations and shall not be used for any other purposes. Moreover, the recommendations contained in this data sheet are not to be construed as a license to operate under, or a recommendation to infringe, any existing patents, nor should they be confused with state, municipal or insurance requirements, or with national safety codes.

# Coverboard Adhesive

## Safety Data Sheet

### IDENTITY (As Used on Label)

GIA1060 – Hot Melt Adhesive

### Chemical Name/Family

N/A

### Section 1 – Product Identification

Manufactured for

Glue Machinery Corporation™

4234 Boston Street

Baltimore, Maryland 21224

Emergency Telephone Number

(410)761-2727

Telephone Number for Information

(410)761-2727

Date Prepared: November 30, 2007

### Section 2 – Hazardous Ingredients/Identity Information

HAZARDOUS COMPONENT(S):	OSHA PEL	ACGIH TLV	OTHER LIMITS	CAS NO.
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#### SARA TITLE III

Section 313: This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372.

### Section 3 - Physical and Chemical Characteristics

- |                           |                                     |
|---------------------------|-------------------------------------|
| 1) Boiling Point:         | N/A                                 |
| 2) Specific Gravity:      | Approx. 0.9 at 25°C                 |
| 3) Vapor Pressure:        | N/A                                 |
| 4) Vapor Density:         | N/A                                 |
| 5) Solubility in Water:   | Negligible                          |
| 6) Reactivity with Water: | N/A                                 |
| 7) Appearance and Odor:   | Water White. Slight resinouse odor. |
| 8) Melting Point:         | N/A                                 |

### Section 4 – Fire and Explosion Data

- |  |   |
|--|---|
| 1) Flash Point:                        | Greater than 400°F  |
| 2) Method Used:                        | SETA  |
| 3) Auto Ignition Temp:                 | N/A   |
| 4) Extinguisher media:                 | Dry chemical, CO <sub>2</sub> , chemical foam   |
| 5) Flammable Limits / % Volume in Air: | N/A   |
| Lower:                                 | Upper:  |
| 6) Special Fire Fighting Procedures:   | Self-contained apparatus and protective clothing should be worn in fighting fires involving chemicals |
| 7) Unusual Fire and Explosion Hazards: | None Known  |

## Section 5 – Physical/Chemical Hazards (Reactivity Data)

- 1) Stability: Stable:  Unstable:
- 2) Conditions to Avoid: N/A
- 3) Incompatibility (Materials to Avoid): Oxidizing materials can cause a reaction
- 4) Hazardous Decomposition Products: As with any other organic material, combustion will produce carbon dioxide and probably carbon monoxide.
- 5) Hazardous Polymerization: May occur  Will not occur

## Section 6 - Health Hazards

- 1) If burned by contact with molten material, cool as quickly as possible with water and see a physician for removal of adhering material and treatment of burn.
- 2) Signs and Symptoms of Exposure: If heated to decomposition, fumes generated may result in irritation of nose, eyes, throat and respiratory tract.
- 3) Chemicals Listed as Carcinogen or Potential Carcinogen:  
National Toxicology Program: Yes  No   
I.A.R.C. Monographs: Yes  No  OSHA: Yes  No

## Section 7: Emergency and First Aid Procedures

**If Symptoms of Overexposure Develop, Always Seek Immediate Medical Attention.**

### **ROUTES OF ENTRY:**

NOTE: MOLTEN MATERIAL MAY CAUSE THERMAL BURNS.

- 1) Inhalation(Breathing): Remove subject to fresh air
- 2) Eye Contact: Flush with plenty of water for at least 15 minutes
- 3) Skin Contact: Wash exposed area with soap and water. Launder contaminated clothing before reuse.
- 4) Ingestion (Swallowing): Induce vomiting. No adverse health effects are anticipated. Consult a physician.

## Section 8 – Special Precautions and Spill/Leak Procedures

- 1) Precautions to be Taken in Handling and Storage: No special precautions are known.
- 2) Other Precautions: Molten product may cause thermal burns. Vapors and fumes may cause eye, nose, throat and respiratory tract irritation.
- 3) Steps to be Taken in Case Material is Released or Spilled: Collect and contain for salvage or disposal.
- 4) **Waste Disposal Methods (Always Consult Federal, State, Regional, and Local Regulations Pertaining to This Material Before Using Any Method Suggested Here):** Incineration
- 5) Consult Local Waste Disposal Professionals.

N/A - NOT APPLICABLE

Section 9 - Special Protection Information/ Control Measures

**General: Always Use Protective Equipment / Clothing as Necessary to Keep Exposure to This Material Below Applicable Exposure Limits.**

- 1) Respiratory Protection (Specify Type): None should be needed
- 2) Ventilation:
- 3) Local: Exhaust as needed to control fumes.
- 4) Mechanical(General): Recommended    Special: None known    Other: None known
- 5) Protective Gloves: Should be worn to protect against thermal burns
- 6) Eye Protection: Glasses should be worn in any type of industrial operation.
- 7) Other Protective Clothing or Equipment: Safety shower and eye bath in work area.
- 8) Work / Hygienic Practices: Wash exposed areas with soap and water.

*The information herein is based upon data believed to be correct. However, since much of the information has been received from sources outside our company, no warranties, expressed or implied, are made and no liability is assumed in connection with any use of this information.*



**Section 1 - Chemical Product and Company Identification**

**Product Name** Polyisocyanurate Foam Insulations  
**CAS#** None Assigned  
**Generic Name** Insulation (Polyisocyanurate Foam)  
**Formula** Polymer  
**Chemical Name:** Proprietary  
**Hazard Label** L3015\_PI  
**Manufacturer Information**

Johns Manville  
 Roofing Systems Group  
 P.O. Box 5108  
 Denver, CO 80127 USA

Telephone: 303-978-2000 8:00AM-5:00PM M-F  
 Internet Address: <http://www.jm.com>  
 Emergency: 800-424-9300 (Chemtrec, In English)

**Trade Names:** Invinsa™ Backer Board; Invinsa™ Roof Board Invinsa™ FR

**Section 2 – Hazards Identification**

**Emergency Overview**

Breathing dust from this product may cause a scratchy throat, congestion, and slight coughing. Getting dust or fibers on the skin, or in the eyes may cause itching, rash, or redness.

Product is combustible. Burning of this material will produce thick, black smoke.

**Inhalation**

Irritation of the upper respiratory tract (scratchy throat), coughing, and congestion may occur in extreme exposures.

**Skin**

Temporary irritation (itching) or redness may occur.

**Ingestion**

This product is not intended to be ingested (eaten). If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.

**Eyes**

Temporary irritation (itching) or redness may occur.

**Ears**

Temporary irritation (itching) or redness may occur.

**Primary Routes of Entry (Exposure)**

Inhalation (breathing dust), skin, and eye contact.

**Target Organs**

Upper respiratory passages, skin, and eyes.

**Medical Conditions Aggravated by Exposure**

Pre-existing chronic respiratory, skin, or eye diseases or conditions.

**Section 3 - Composition / Information on Ingredients**

CAS #	Component	Percent
Not Available	Polyisocyanurate foam	50-90
Not Available	Coated Glass Mat	0-20*
Not Available	FR Coated Glass Mat	0-20*
Not Available	Pentane	0-3**
78-78-4	Isopentane	0-3**

**Component Information**

\* May contain either facer.

\*\* Blowing agent in polyisocyanurate foam

**General Product Description**

Yellow-to-tan condensed foam board with coated glass mat facings. No significant odor.

**Section 4 - First Aid Measures****First Aid: Inhalation**

Remove to fresh air. Get medical attention if symptoms occur.

**First Aid: Skin**

Wash gently with soap and warm water to remove dust.

**First Aid: Ingestion**

Product is not intended to be ingested or eaten. Do not induce vomiting unless directed to do so by medical personnel.

**First Aid: Eyes**

Flush eyes with large amounts of water for 15 minutes. If irritation persists, contact a medical professional.

**First Aid: Notes to Physician**

This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

**Section 5 - Fire Fighting Measures**

**Flash Point:** Not applicable

**Upper Flammable Limit (UFL):** Not applicable

**Auto Ignition:** Not determined

**Rate of Burning:** Not determined

**Hazardous Combustion Products**

Product is combustible. Burning of this material will produce thick, black smoke.

**Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>), water, water fog, dry chemical.

**Fire Fighting Equipment/Instructions**

No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

**Method Used:** Not applicable

**Lower Flammable Limit (LFL):** Not applicable

**Flammability Classification:** Not determined

**Section 6 - Accidental Release Measures****Containment Procedures**

Pick up large pieces. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation or use compressed air for clean-up. These procedures will help to minimize potential exposures.

**Clean-Up Procedures**

Avoid the generation of dusts during clean-up.

**Section 7 - Handling and Storage****Handling Procedures**

Use protective equipment as described in Section 8 of this material safety data sheet when handling uncontained material.

**Storage Procedures**

Warehouse storage should be in accordance with package directions, if any. Material should be kept clean, dry, and protected from moisture.

**Section 8 - Exposure Controls / Personal Protection****Exposure Guidelines****A: General Product Information**

JM has adopted the fiber glass industry voluntary Product Stewardship Program (PSP), formerly the NAIMA-OSHA Health and Safety Partnership Program (HSPP). Under the PSP, JM recommends that exposures be limited to the voluntary concentration of 1 f/cc TWA for fibers longer than 5 microns with a diameter less than 3 microns. This will help minimize potential irritation effects. The PSP also includes the following PPE recommendations described.

**B: Component Exposure Limits**

The Occupational Safety and Health Administration (OSHA) has not adopted specific occupational exposure standards for fiber glass. Fiber glass is treated as a nuisance dust and is regulated by OSHA as a particulate not otherwise regulated (total dust) shown in CFR 1910.1000 Table Z-3.

Respirable fraction 5 mg/m<sup>3</sup>

Total dust 15 mg/m<sup>3</sup>

**Isopentane (78-78-4)**

ACGIH: 600 ppm TWA (listed under Pentane, all isomers)

**PERSONAL PROTECTIVE EQUIPMENT****Personal Protective Equipment: Eyes/Face**

Safety glasses with sideshields are recommended to keep dust out of the eyes.

**Personal Protective Equipment: Ears**

Use ear protection (earplugs, hood, or earmuffs) to prevent airborne dust or fibers from entering the ear, if necessary.

**Personal Protective Equipment: Skin**

Leather or cotton gloves should be worn to prevent skin contact and irritation. Barrier creams may also be used to reduce skin contact and irritation caused by fiber glass.

**Personal Protective Equipment: Respiratory**

A respirator should be used if ventilation is unavailable, or is inadequate for keeping dust and fiber levels below the applicable exposure limits. In those cases, use an appropriate NIOSH-certified respirator.

**Ventilation**

In fixed manufacturing settings, local exhaust ventilation should be provided at areas of cutting to remove airborne dust and fibers. General dilution ventilation should be provided as necessary to keep airborne dust and fibers below the applicable exposure limits and guidelines. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.

**Personal Protective Equipment: General**

Wear a cap, a loose-fitting, long-sleeved shirt and long pants to protect skin from irritation. Exposed skin areas should be washed with soap and warm water after handling or working with fiber glass. Clothing should be washed separately from other clothes, and the washer should be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of fiber glass being transferred to other clothing.

**Section 9 - Physical & Chemical Properties****Appearance:** Yellow-to-tan condensed foam board laminated with coated glass mat facing.**Odor:** No significant odor**Physical State:** Solid**pH:** Not applicable**Vapor Pressure:** Not applicable**Vapor Density:** Not applicable**Boiling Point:** Not applicable**Melting Point:** Not applicable**Solubility (H<sub>2</sub>O):** None**Specific Gravity:** Not applicable**Freezing Point:** Not applicable**Evaporation Rate:** Not applicable**Viscosity:** Not applicable**Percent Volatile:** Negligible**VOC:** 5.25 g/L**Section 10 - Chemical Stability & Reactivity Information****Chemical Stability**

This is a stable material. This product is not reactive.

**Chemical Stability: Conditions to Avoid**

Keep away from heat, sparks, or open flame.

**Incompatibility**

Acetone, methyl ethyl ketone, tetrahydrofuran, chlorine, chloroform, hydrogen peroxide, ethylene dichloride, dimethyl sulfoxide, and dimethyl formamide.

**Hazardous Decomposition**

The decomposition products from this material are those that would be expected from any organic (carbon-containing) material, and are mainly derived from pyrolysis, or burning, of the resin. These decomposition products may include carbon monoxide, carbon dioxide, carbon particles, and traces of hydrogen cyanide.

**Hazardous Polymerization**

Will not occur.

**Section 11 - Toxicological Information****Acute Toxicity****General Product Information**

Dust from this product is a mechanical irritant, which means that it may cause temporary irritation or scratchiness of the throat, and/or itching of the eyes and skin.

Isopentane and n-pentane may be released at very low concentrations (well below their lower flammability limits) from these products when they are cut or crushed. Airborne concentrations of these pentanes is expected to be below occupational exposure limits referenced in Section 8.

**Carcinogenicity****A: General Product Information**

No data for this product as a whole.

**B: Component Carcinogenicity****Continuous filament glass fibers**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Group 3 - Not Classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibres), Monograph 43 [1988])

**Chronic Toxicity**

Polyisocyanurate Foam: There is no evidence that dust from this material causes disease in man. There are no known animal studies of the chronic health effects of breathing dust from polyisocyanurate foam. However, a subchronic inhalation study showed no adverse respiratory effects in rats as a result of breathing 9 mg/m<sup>3</sup> of dust from a similar foam (polyurethane foam) for 3 months (Thyssen et al., 1978). In 1987, IARC designated polyurethane as Group 3, not classifiable as to carcinogenicity to humans (Monograph 19).

Continuous Filament Glass Fiber: No chronic health effects are known to be associated with exposure to continuous filament fiber glass. Long-term epidemiologic studies do not show any increases in respiratory cancer or other disease among employees who manufacture this product. In 1987, the International Agency for Research on Cancer (IARC) classified continuous filament fiber glass as a Group 3 substance, "not classifiable as to its carcinogenicity to humans." In 2001, IARC re-affirmed this designation. Because of the large diameter of continuous filament fibers, these fibers are not considered respirable.

**Section 12 - Ecological Information****Ecotoxicity****A: General Product Information**

No data available for this product.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity****Isopentane (78-78-4)**

48 Hr EC50 Daphnia magna: 2.3 mg/L

**Section 13 - Disposal Considerations****US EPA Waste Number & Descriptions****A: General Product Information**

This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal.

**B: Component Waste Numbers**

No EPA Waste Numbers are applicable for this product's components.

**Disposal Instructions**

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

**Section 14 - Transportation Information****International Transportation Regulations**

This product is not classified as a hazardous material for transport.

<b>Section 15 - Regulatory Information</b>
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**US Federal Regulations****A: General Product Information**

SARA 311/312: This product is not classified as hazardous under SARA 311/312.

**B: Component Analysis**

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

**State Regulations****A: General Product Information**

Other state regulations may apply. Check individual state requirements.

**B: Component Analysis - State**

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Continuous filament glass fibers	NA	No	No	No	Yes	No	No
Isopentane	78-78-4	No	No	Yes	No	Yes	Yes

**A: TSCA Status**

This product and its components are listed on the TSCA 8(b) inventory.

None of the components listed in this product are listed on the TSCA Export Notification 12(b) list.

**International Regulations****A: General Product Information**

This product is considered an article under both U.S. and international product regulations and as such, this product does not require registration or notification on the various country-specific inventories.

**B: Component Analysis - WHMIS IDL**

**WHMIS (Classification):** Not controlled under WHMIS (Canada).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

<b>Section 16 - Other Information</b>
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**Other Information**

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The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Date	MSDS #	Reason
08/12/05	3015-1.0000	New MSDS authoring system.
12/16/05	3015-1.0001	Regulatory update. Minor edits in Section 8 Exposure and Section 15 WHMIS.
02/24/06	3015-1.0002	Product trade name finalized from JM Coverboard to Invinsa.
08/24/06	3015-1.0003	Added Invinsa Backer Board to trade names. Edited ranges in composition table for Backer Board.

**Material Name: Invinsa™ Board**

**Material Safety Data  
Sheet ID: 3015**

04/16/07	3015-1.0004	Section 15 TSCA 12b info was edited and Pentane removed. This product is an article under TSCA. Pentane does not need to be reported under TSCA 12b per 40CFR §707.60(b).
08/03/2012	3015-2.0000	Updated composition and format.

This is the end of MSDS # 3015