



since 1895

# Material Safety Data Sheet

NFPA	WHMIS	PPE	Transport Symbol
			Not Regulated

Preparation Date 18-Feb-2011

Revision Date 18-Feb-2011

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Insul-Lock E HR Part A  
**Product Code** 7349 PART A  
**UN-No** Not available

**Contact Manufacturer**  
 The Garland Company, Inc.  
 3800 East 91st. Street  
 Cleveland, Ohio 44105-2197  
 Ph: (800) 762-8225 Fax: (216) 641-0633

Garland Canada, Inc.  
 1296 Martin Grove Rd.  
 Toronto, Ontario M9W 4X3  
 Ph: (416)747-7995 Fax: (416)747-1980

**Emergency Telephone Number** 1-800-762-8225 (24 Hrs.)

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

Combustible material

**Appearance** Amber.

**Physical State** Liquid.

**Odor** Slight.

**Mexico - Grade** Slight risk, Grade 1

### Potential Health Effects

**Principle Routes of Exposure** Eye contact, Skin contact, Ingestion.

### Acute Effects

**Eyes** Contact with eyes may cause irritation  
**Skin** Avoid contact with skin  
**Inhalation** May cause irritation of respiratory tract  
**Ingestion** May be harmful if swallowed

**Chronic Effects** Repeated contact may cause allergic reactions in very susceptible persons

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Not available

**Interactions with Other Chemicals** Not available

**Potential Environmental Effects** See Section 12 for additional Ecological information

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous Components

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Methylene Bis	101-68-8	10 - 30	1
Methylene Bis Isomers	26447-40-5	0.1 - 1	1
Polymeric Diphenylmethane Diisocyanate (MDI)	9016-87-9	10 - 30	1

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Inhalation</b>	Move to fresh air
<b>Ingestion</b>	Do not induce vomiting. Immediate medical attention is required.
<b>Notes to Physician</b>	Treat symptomatically

### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical.
<b>Unsuitable Extinguishing Media</b>	Not available
<b>Hazardous Combustion Products</b>	Hydrocyanic Acid, Carbon dioxide (CO <sub>2</sub> ), Carbon monoxide, Carbon oxides.
<b>Explosion Data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

#### Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

#### Protective Equipment and Precautions for Firefighters

Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

**NFPA**

**Health 1**

**Flammability 1**

**Instability 0**

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Evacuate personnel to safe areas
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so
<b>Methods for Containment</b>	Dike with inert absorbent material
<b>Methods for Cleaning Up</b>	Soak up with inert absorbent material
<b>Other Information</b>	Not applicable

## 7. HANDLING AND STORAGE

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Storage</b>	Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep out of the reach of children.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico
Methylene Bis	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m <sup>3</sup>	CEV: 0.8 µmol/m <sup>3</sup> CEV: 0.02 ppm TWA: 0.2 µmol/m <sup>3</sup> TWA: 0.005 ppm	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.051 mg/m <sup>3</sup> TWA: 0.005 ppm TWA: 0.02 ppm

Chemical Name	NIOSH IDLH
Methylene Bis	75 mg/m <sup>3</sup>

<b>Engineering Measures</b>	Do not allow ventilation equipment to draw material odors indoors.
<b>Personal Protective Equipment</b>	
<b>Eye/face Protection</b>	Safety glasses with side-shields
<b>Skin Protection</b>	Impervious gloves
<b>Respiratory Protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice
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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Amber
<b>Odor</b>	Slight
<b>Physical State</b>	Liquid
<b>pH</b>	Not available
<b>Flash Point</b>	> 350°F / 177°C
<b>Autoignition Temperature</b>	Not available
<b>Boiling Point/Range</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flammability Limits in Air</b>	<b>Lower</b> Not available <b>Upper</b> Not available
<b>Explosive Properties</b>	Not available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Oxidizing Properties</b>	Not available
<b>Evaporation Rate</b>	Not available
<b>Vapor Pressure</b>	Not available
<b>Vapor Density</b>	Not available
<b>Specific Gravity</b>	Not available
<b>Water Solubility</b>	Insoluble
<b>Volatiles</b>	Not available

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions
<b>Conditions to Avoid</b>	Heat, flames and sparks
<b>Incompatible Materials</b>	No materials to be especially mentioned
<b>Hazardous Decomposition Products</b>	None under normal use
<b>Possibility of Hazardous Reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### **Component Information**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methylene Bis	9200 mg/kg Rat		
Methylene Bis Isomers		6200 mg/kg Rabbit	0.369 mg/L Rat 4 h
Polymeric Diphenylmethane Diisocyanate (MDI)	49 g/kg Rat	9400 mg/kg Rabbit	490 mg/m <sup>3</sup> Rat 4 h

### Chronic Toxicity

<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen
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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants

#### Methylene Bis Isomers

##### **Freshwater Algae Data**

*Skeletonema costatum* EC50=3230 mg/L (96 h)

##### **Water Flea Data**

*Daphnia magna* EC50>1000 mg/L (24 h)

<b>Persistence/Degradability</b>	Not available
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**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

<b>Chemical Name</b>	<b>SARA 313 - Threshold Values</b>
Methylene Bis (CAS #: 101-68-8)	1.0%
Polymeric Diphenylmethane Diisocyanate (MDI) (CAS #: 9016-87-9)	1.0%

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any HAPs.

**Chemical Name**

Methylene Bis (CAS #: 101-68-8)

**State Regulations****California Proposition 65**

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

**State Right-to-Know**

<b>Chemical Name</b>	<b>Massachusetts</b>	<b>New Jersey</b>	<b>Pennsylvania</b>	<b>Illinois</b>	<b>Rhode Island</b>
Methylene Bis	X	X	X	X	X

**Canada**

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

**WHMIS Hazard Class**

D2A, D2B

<b>16. OTHER INFORMATION</b>
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**Revision Date** 18-Feb-2011

**Revision Summary** Not available

**Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**



# Material Safety Data Sheet

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Preparation Date 21-Feb-2011

Revision Date 21-Feb-2011

Revision Number 1

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**Product Name** Insul-Lock E HR Part B  
**Product Code** 7349 PART B  
**UN-No** Not available  
**Contact Manufacturer**  
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 Cleveland, Ohio 44105-2197  
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### Emergency Overview

Combustible material

**Appearance** Amber.

**Physical State** Liquid.

**Odor** Slight.

**Mexico - Grade** Slight risk, Grade 1

### Potential Health Effects

**Principle Routes of Exposure** Eye contact, Skin contact, Ingestion.

### Acute Effects

**Eyes**  
**Skin**

Contact with eyes may cause irritation  
Avoid contact with skin

<b>Inhalation</b>	May cause irritation of respiratory tract
<b>Ingestion</b>	May be harmful if swallowed
<b>Chronic Effects</b>	Repeated contact may cause allergic reactions in very susceptible persons
See Section 11 for additional Toxicological information.	
<b>Aggravated Medical Conditions</b>	Not available
<b>Interactions with Other Chemicals</b>	Not available
<b>Potential Environmental Effects</b>	See Section 12 for additional Ecological information

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician
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<b>Inhalation</b>	Move to fresh air
<b>Ingestion</b>	Do not induce vomiting. Immediate medical attention is required.
<b>Notes to Physician</b>	Treat symptomatically

### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical.
<b>Unsuitable Extinguishing Media</b>	Not available
<b>Hazardous Combustion Products</b>	Hydrocyanic Acid, Carbon dioxide (CO <sub>2</sub> ), Carbon monoxide, Carbon oxides.
<b>Explosion Data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

#### Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

#### Protective Equipment and Precautions for Firefighters

Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

<b>NFPA</b>	<b>Health</b> 1	<b>Flammability</b> 1	<b>Instability</b> 0
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### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Evacuate personnel to safe areas
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<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so
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<b>Methods for Cleaning Up</b>	Soak up with inert absorbent material
<b>Other Information</b>	Not applicable

## 7. HANDLING AND STORAGE

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Storage</b>	Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep out of the reach of children.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering Measures</b>	Do not allow ventilation equipment to draw material odors indoors.
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<b>Eye/face Protection</b>	Safety glasses with side-shields
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<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Amber
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<b>pH</b>	Not available
<b>Flash Point</b>	> 350°F / 177°C
<b>Autoignition Temperature</b>	Not available
<b>Boiling Point/Range</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flammability Limits in Air</b>	<b>Lower</b> Not available <b>Upper</b> Not available
<b>Explosive Properties</b>	Not available
<b>Oxidizing Properties</b>	Not available
<b>Evaporation Rate</b>	Not available
<b>Vapor Pressure</b>	Not available
<b>Vapor Density</b>	Not available
<b>Specific Gravity</b>	Not available
<b>Water Solubility</b>	Insoluble
<b>Volatiles</b>	Not available

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions
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<b>Conditions to Avoid</b>	Heat, flames and sparks
<b>Incompatible Materials</b>	No materials to be especially mentioned
<b>Hazardous Decomposition Products</b>	None under normal use
<b>Possibility of Hazardous Reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

### **Component Information**

### Chronic Toxicity

**Carcinogenicity**                      The table below indicates whether each agency has listed any ingredient as a carcinogen

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants

<b>Persistence/Degradability</b>	Not available
<b>Bioaccumulation/ Accumulation</b>	Not available
<b>Mobility in Environmental Media</b>	Not available

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method</b>	Dispose of in accordance with local regulations
<b>Contaminated Packaging</b>	Empty containers should be taken for local recycling, recovery or waste disposal
<b>US EPA Waste Number</b>	Not available

## 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Not Regulated
<b><u>TDG</u></b>	Not regulated
<b><u>MEX</u></b>	Not regulated
<b><u>ICAO</u></b>	Not regulated
<b><u>IATA</u></b>	Not regulated

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<b>14. TRANSPORT INFORMATION</b>
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<b><u>IMDG/IMO</u></b>	Not regulated
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<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

<b>TSCA</b>	Does not Comply
<b>DSL</b>	Does not Comply
<b>NDSL</b>	Complies
<b>EINECS</b>	Does not Comply
<b>ELINCS</b>	Does not Comply
<b>ENCS</b>	Does not Comply
<b>CHINA</b>	Does not Comply
<b>KECL</b>	Does not Comply
<b>PICCS</b>	Does not Comply
<b>AICS</b>	Does not Comply

**USA****Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any HAPs.

**State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**State Right-to-Know****Canada**

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

**WHMIS Hazard Class**

D2A, D2B

<b>16. OTHER INFORMATION</b>
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<b>Revision Date</b>	18-Feb-2011
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<b>Revision Summary</b>	Not available
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**End of MSDS**