



MATERIAL SAFETY DATA SHEET

GARNA-FLEX "B" RESIN

Section I-Contact Information

Manufacturer:

RoofMart International, Inc.
2735 Rain Road, P.O. Box 502
Chapman, KS 67431

Emergency Telephone: 800-451-8346 (3E Company)
Information Telephone: 800-345-1439
Date Prepared: June 1, 2005

Section II-Hazardous Ingredients / Identity Information

Non-Hazardous Components (Common Name (s))	OSHA PEL	ACGIH TLV	Other	%
Polyalkylene Oxide Polyol	n/a	n/a	n/a	n/a
Calcium Clay	n/a	n/a	n/a	n/a
Iron Oxide	n/a	n/a	n/a	n/a
Organometallic Compound	n/a	n/a	n/a	n/a

Section III-Physical / Chemical Characteristics

Boiling Point	281°F	Specific Gravity (H ₂ O=1)	1.25
Vapor Pressure (mm Hg)	<0.0003	Melting Point	n/a
Vapor Density (AIR=1)	8.7	Evaporation Rate (Butyl Acetate=1)	0.8
V.O.C. lbs. / gal	0.00	Vapor Pressure (mm Hg at 25°C)	<0.0003

Solubility: Reacts with water. Soluble in most organic solvents.

Appearance and Odor: Gold Liquid/Slightly Sweet

Section IV-Fire and Explosion Hazard Data

Flash Point (Method Used)	475°F	Flammable Limits	Rated non-flammable	LEL	n/a	UEL	n/a
Extinguishing Media	CO ₂ , Foam, Dry Chemical						
Special Fire Fighting Procedures	Usual fireman's body protection and a SCUBA						
Unusual Fire and Explosion Hazards	None						

Section V-Reactivity Data

Stability	Stable	X	Conditions to Avoid: Source of ignition or strong oxidizing agents. High humidity, moisture and temperatures above 375°F.
	Unstable		
Incompatibility (Materials to Avoid)	This product will react with any materials containing water.		
Hazardous Decomposition of Byproducts	Highly unlikely under normal industrial use.		
Hazardous Polymerization	May Occur		Conditions to Avoid: None
	Will Not Occur	X	

Section VI-Health Hazard Data

Route(s) of Entry	Inhalation? Yes	Skin? No	Ingestion? Yes
Carcinogenicity	NTP? No	IARC Monographs? No	OSHA Regulated? No
Signs & Symptoms of Exposure	Headache; Light-headedness.		
Medical Conditions Aggravated	None		
Emergency & First Aid Procedures	Move to well ventilated area. Call Physician.		



Section VII-Toxicological Information

Potential Health Effects:

Inhalation-This product is not a respiratory irritant. However; repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization.

Skin Contact-No adverse effects on skin.

Eye Contact-The aerosol, vapor or liquid may irritate human eyes following contact.

Ingestion-No adverse effects from ingestion.

Chronic Effects-There are no reports that chronic exposure may result in permanent decrease in lung function.

Mutagenicity-There is no evidence of mutagenic potential.

Reproductive Effects-No adverse reproductive effects are anticipated.

Teratogenicity and Fetotoxicity-No information is available and no adverse teratogenic/embryotoxic effects are anticipated.

Section VIII-Precautions for Safe Handling and Use

Steps to be Taken in case of Release or Spill	Small spills-absorb with activated clay absorbents. Large spills-dike up and pump into appropriate containers.
Waste Disposal Method	Waste material may be incinerated under conditions which meet Federal, State and Local environmental control regulations.
Precautions for Handling & Storage	Keep containers tightly closed in a cool, dry place. Store away from open flame.

Section IX-Control Measures

Respiratory Protection (specify type)	Enclosed breathing apparatus or organic filter mask.
Ventilation	Recommended, not required.

Other Protective Clothing or Equipment: As required for good industrial hygiene.

Section X-Ecological Information

Environmental Fate and Distribution-It is unlikely that significant environmental exposure in the air or water will arise, based on consideration of the production and use of the substance. Also factoring the pot life once exposed to the environment.

Persistence and Degradation-Immiscible with water, but will react with water to produce inert and non-biodegradable solids.

Section XI-Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. Disposal should be in accordance with local, state, provincial or national regulations. This material is not a hazardous waste under RCRA 40 CFR 261. Small quantities should be treated with a decontaminant solution. The treated waste is not a hazardous material under RCRA 40 CFR 261. Chemical waste in even small quantities should never be poured down drains, sewers or waterways. Empty containers should be decontaminated and either passed to an approved drum recycler or destroyed.

Section XII-Transportation Information

DOT Proper Shipping Name	This product is not regulated by DOT.
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MATERIAL SAFETY DATA SHEET

GARNA-FLEX "A" ISO

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Chapman, KS 67431

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Section II-Hazardous Ingredients / Identity Information

Non-Hazardous Components (Common Name (s))	OSHA PEL	ACGIH TLV	Other	%
Modified Polymeric MDI	n/a	n/a	n/a	55-65
Diphenylmethane Diisocyanate	n/a	n/a	n/a	35-45
4,4' MDI	n/a	0.005 ppm	n/a	trace

Section III-Physical / Chemical Characteristics

Boiling Point	n/a	Specific Gravity (H ₂ O=1)	1.2
Vapor Pressure (mm Hg)	<0.0003	Melting Point	n/a
Vapor Density (AIR=1)	8.5 approx.	Evaporation Rate (Butyl Acetate=1)	n/a
V.O.C. lbs. / gal	0.00	Odor Threshold (ppm)	0.4 (Diisocyanate)
Solubility	Reacts with water. Soluble in most organic solvents.		
Appearance and Odor	Green Liquid/Slightly Sweet		

Section IV-Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
300°F	Rated non-flammable	n/a	n/a
Extinguishing Media	CO ₂ , Foam, Dry Chemical		
Special Fire Fighting Procedures	Usual fireman's body protection and a SCUBA		
Unusual Fire and Explosion Hazards	n/a		

Section V-Reactivity Data

Stability	Stable	X	Conditions to Avoid: Source of ignition or strong oxidizing agents. High humidity, moisture and temperatures above 375°F.
	Unstable		
Incompatibility (Materials to Avoid)	This product will react with any materials containing water.		
Hazardous Decomposition of Byproducts	CO, CO ₂ , H ₂ O, Aliphatic Fragments. Highly unlikely under normal industrial use.		
Hazardous Polymerization	May Occur		Conditions to Avoid: n/a
	Will Not Occur	X	

Section VI-Health Hazard Data

Route(s) of Entry	Inhalation? Yes	Skin? No	Ingestion? Yes
Carcinogenicity	NTP? No	IARC Monographs? No	OSHA Regulated? No
Signs & Symptoms of Exposure	Headache; Light-headedness		
Medical Conditions Aggravated	None Listed		
Emergency & First Aid Procedures	Move to well ventilated area. Call Physician.		



Section VII-Toxicological Information

Potential Health Effects:

Inhalation-This product is not a respiratory irritant. However; repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization.

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Chronic Effects-are no reports that chronic exposure may result in permanent decrease in lung function.

Mutagenicity-There is no evidence of mutagenic potential.

Reproductive Effects-No adverse reproductive effects are anticipated.

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Section X-Ecological Information

Environmental Fate and Distribution-It is unlikely that significant environmental exposure in the air or water will arise, based on consideration of the production and use of the substance. Also factoring the pot life once exposed to the environment.

Persistence and Degradation-Immiscible with water, but will react with water to produce inert and non-biodegradable solids.

Toxicity-Not regulated.

Section XI-Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. Disposal should be in accordance with local, state, provincial or national regulations. This material is not a hazardous waste under RCRA 40 CFR 261. Small quantities should be treated with a decontaminant solution. The treated waste is not a hazardous material under RCRA 40 CFR 261. Chemical waste in even small quantities should never be poured down drains, sewers or waterways. Empty containers should be decontaminated and either passed to an approved drum recycler or destroyed.

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