



# MSDS

## Material Safety Data Sheet

DATE PREPARED: 2/6/13

MANUFACTURER'S NAME: GARON PRODUCTS INC., PO Box 1924, Wall, NJ 07719-1924, 800-631-5380 FAX: 732-223-2002

EMERGENCY PHONE NO: CHEMTREC 800-424-9300

### SECTION I - IDENTIFICATION

#### PART A

TRADE NAME: MORTARTHANE COVE MORTAR, MORTARTHANE HF, MORTARTHANE HF TOPCOAT, MORTARTHANE SL, MORTARTHANE SLP, MORTARTHANE TC

PRODUCT CLASS:

PRODUCT CODE: 11902, 115021, 11505, 110021, 110010, 11401

DESCRIPTION: THERMAL & SHOCK RESISTANT URETHANE SYSTEMS

HAZARD RATING	
0 = Least	Health 1
1 = Slight	Flammability 0
2 = Moderate	Reactivity 0
3 = High	Personal Protection B
4 = Extreme	

HAZARDOUS COMPONENTS / CAS #	OSHA PEL	ACGIH TLV	OSHA STEL	WT %
Polyester-ether Polyol dispersed in water CAS # Proprietary	None Established	None Established	NA	
Phthalate / Diluents Ester CAS# Proprietary	None Established	None Established	NA	
Surfactant CAS# Proprietary	None Established	None Established	NA	
Rutile Titanium Dioxide CAS # 13463-67-7	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	NA	
Inorganic Iron Oxides CAS # 1309-37-1	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	NA	
Carbon Black CAS# 1333-86-44	3.5mg/m3 (dust)	3.5mg/m3 (dust)	NA	

### SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point:	>200+°F	Specific Gravity (H <sub>2</sub> O=1):	>1
Vapor Pressure (mm Hg):	N/A	Melting Point:	N/A
Vapor Density (Air=1):	>1	Evaporation Rate (Butyl Acetate=1):	<1
Solubility in Water:	Dispersible		
Appearance & Odor:	Viscous Liquid. Color varies upon desired shade. Faint odor.		

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point:	540°F	Method Used:	Closed Cup
Flammable Limits in Air by Volume:	UPPER:	N/A	LOWER:
Extinguishing Media:	Foam, Alcohol Foam, CO <sub>2</sub> , Dry Chemical, Water Fog		
Special Firefighting Procedures:	Wear full protective equipment including self-contained breathing apparatus.		
Unusual Fire and Explosion Hazards:	Combustion products may be toxic. Cool storage containers with water spray to prevent pressure build-up that may rupture the containers.		

### SECTION V - REACTIVITY DATA

Stability	Stable
Conditions to Avoid	None Known
Incompatibility (Materials to avoid)	Strong Oxidants
Hazardous Decomposition or By-Products	Burning will produce toxic fumes
Hazardous Polymerization	Will not occur



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<b>SECTION VI - HEALTH HAZARD DATA A. Health risks and symptoms of exposure</b>	
Inhalation	No known significant effects or critical hazards.
Skin Contact	Irritating to skin. May cause sensitization by skin contact.
Eye Contact	Irritating to eyes.
Skin Absorption	No known significant effects or critical hazards.
Ingestion	Get medical attention immediately. Never give liquids to an unconscious or convulsing person..

<b>B. Health Hazards (Acute &amp; Chronic):</b> ACUTE – Irritation of skin and dermatitis. CHRONIC – Repeated over-exposure may cause skin irritation, dermatitis and sensitization. Sensitized persons may experience rapid irritation of skin upon exposure. NOTE: Persons with lung disorders or who are sensitized should not use this product.			
Carcinogenicity	OSHA Regulated: NO	NTP: NO	IARC Monographs: NO
No listed ingredients of this product are regulated as carcinogens. See health hazards acute and chronic for additional information concerning this product.			
Medical Conditions Generally Aggravated by Exposure:	Allergy, skin disorders		
Signs & Symptoms of Exposure:	Irritation of skin		

<b>C. Emergency &amp; First Aid Procedures</b>	
Eyes	Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.
Skin	Promptly wash with soap and water. Do not wash with solvents. Seek medical advice if irritation develops or persists.
Inhalation	Not a likely route of entry. Although this product is not known to cause respiratory problems, if breathing is difficult move to fresh air and provide oxygen.
Ingestion	Get medical attention immediately. Never give liquids to an unconscious or convulsing person.

<b>SECTION VII - SAFE HANDLING &amp; USE INFORMATION</b>	
Steps to be taken in case material is released or spilled	Wear protective equipment to prevent exposure. Stop spill and dike to prevent spreading. Cover spill with absorbent materials and collect into containers. Clean contaminated area with detergent and water or a steam cleaner for best results.
Waste Disposal Method	Dispose in accordance with Federal, State and local requirements.
Precautions to be taken in Handling and Storing	Keep containers tightly closed when not in use.
Other Precautions	None known.

<b>SECTION VIII - CONTROL MEASURES/PROTECTION INFORMATION</b>	
Respiratory Protection	Provide adequate exhaust ventilation; use a NIOSH approved respirator if PELS/TLVS are exceeded.
Ventilation	Local exhaust – if needed. Mechanical – Adequate exhaust ventilation must exhaust away from applicator.
Protective Gloves	Impervious gloves, neoprene or rubber.
Eye Protection	Splash proof goggles or safety glasses with side shields.
Other Protective Clothing or Equipment	Use rubber apron, face shield and appropriate clothing to prevent contact with skin. Launder contaminated clothing before reuse. Discard contaminated leather shoes and canvas sneakers. Protective skin creams may help, but gloves must still be worn. Clean-up with soap and water. An eye wash station or an adequate supply of clean water must be available at work area.
Work / Hygienic Practices	Observe general good hygienic practices. Enforce careful handling to prevent splashing. Wash thoroughly after use.



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### SECTION I - IDENTIFICATION

#### PART B

TRADE NAME: MORTARTHANE COVE MORTAR, MORTARTHANE HF, MORTARTHANE HF TOPCOAT, MORTARTHANE SL, MORTARTHANE SLP, MORTARTHANE TC

PRODUCT CLASS:

PRODUCT CODE: 11902, 115021, 11505, 110021, 110010, 11401

DESCRIPTION: THERMAL & SHOCK RESISTANT URETHANE SYSTEMS

HAZARD RATING		
0 = Least	Health	2
1 = Slight	Flammability	1
2 = Moderate	Reactivity	1
3 = High	Personal Protection	G
4 = Extreme		

HAZARDOUS COMPONENTS / CAS #	OSHA PEL	ACGIH TLV	OSHA STEL	WT %
Polyisocyanate based on MDI CAS # Trade Secret*	None Established	None Established	NA	
4, 4-Diphenylmethane Diisocyanate CAS # 101-68-8	0.02 ppm	0.005 ppm	NA	

\* The manufacturer of the component states that they will provide additional information to a health professional in the event of a medical emergency.

### SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point:	392+°F	Specific Gravity (H <sub>2</sub> O=1):	>1
Vapor Pressure (mm Hg):	< 10-5 @ 77°F	Melting Point:	Not Established
Vapor Density (Air=1):	8.5	Evaporation Rate (Butyl Acetate=1):	Not Established
Solubility in Water:	Reacts slowly with water to liberate CO <sub>2</sub> gas.		
Appearance & Odor:	Dark amber liquid. Slight aromatic odor.		

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point:	400+°F	Method Used:	Closed Cup
Flammable Limits in Air by Volume:	UPPER:	N/A	LOWER:
Extinguishing Media:	Water, dry extinguishing media, carbon dioxide, foam		
Special Firefighting Procedures:	Wear full protective equipment including self-contained breathing apparatus. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame. Avoid spreading burning liquid with H <sub>2</sub> O used for cooling purposes. .		
Unusual Fire and Explosion Hazards:	MDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. At temperatures greater than 400°F, polymeric MDI can polymerize and decompose which can cause pressure build-up in containers. Explosive rupture is possible. Cold water can cool fire-exposed containers. Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.		

### SECTION V - REACTIVITY DATA

Stability	Stable
Conditions to Avoid	Keep container closed when not in use
Incompatibility (Materials to Avoid)	Water, amines, strong bases, alcohols, copper alloys and aluminum, zinc.
Hazardous Decomposition or By-Products	Fire: Carbon monoxide, oxides of Nitrogen, traces of HCN, MDI vapors or aerosols.
Hazardous Polymerization	May occur
Conditions to Avoid	Contact with moisture, other materials which react with isocyanates, or temperatures above 400°F may cause polymerization.



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<b>SECTION VI - HEALTH HAZARD DATA A. Health risks and symptoms of exposure</b>	
Inhalation	Move person away from source of exposure and into fresh air. If person is not breathing, give artificial respiration and seek medical attention immediately. If breathing difficulty develops, give oxygen and seek medical attention immediately.
Skin Contact	Remove contaminated clothing. Clean affected area with mild soap and water. If irritation or redness develops, seek medical attention.
Eye Contact	Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.
Skin Absorption	Clean affected area with mild soap and water. If irritation or redness develops, seek medical attention
Ingestion	Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required. Do not give anything by mouth to an unconscious person.

<b>B. Health Hazards (Acute &amp; Chronic):</b> ACUTE Inhalation – can cause nasal and respiratory irritation, dizziness, headache, nausea. Also, runny nose, sore throat, coughing, chest discomfort and reduced lung function. CHRONIC Inhalation – isocyanate sensitization can develop which can persist for weeks or years. Overexposure can cause lung damage which may be permanent. ACUTE Skin – isocyanates react with skin protein and cause irritation. Chronic Skin – prolonged contact can cause reddening, swelling, scaling, rash, blistering and skin sensitization. ACUTE Eye – tearing, reddening, swelling if untreated, corneal damage can result.			
Carcinogenicity	OSHA Regulated: NO	NTP: NO	IARC Monographs: NO
No listed ingredients of this product are regulated as carcinogens. See health hazards acute and chronic for additional information concerning this product.			
Medical Conditions Generally Aggravated by Exposure:	Respiratory disorders (asthma, bronchitis, emphysema, bronchial hyperactivity), skin allergies, eczema.		
Signs & Symptoms of Exposure:	Irritation and redness of skin and eyes. Breathing difficulty.		

<b>C. Emergency &amp; First Aid Procedures</b>	
Eyes	Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.
Skin	Remove contaminated clothing. Clean affected area with mild soap and water. If irritation or redness develops, seek medical attention.
Inhalation	Move person away from source of exposure and into fresh air. If person is not breathing, give artificial respiration and seek medical attention immediately. If breathing difficulty develops, give oxygen and seek medical attention immediately.
Ingestion	DO NOT INDUCE VOMITING. Give 1 to 2 cups of milk or water to drink. Do not give anything by mouth to an unconscious person. Immediate medical attention required.

<b>SECTION VII - SAFE HANDLING &amp; USE INFORMATION</b>	
Steps to be taken in Case Material is Released or Spilled	Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment, including respiratory equipment during clean-up. Absorb isocyanates with sawdust or another absorbent, shovel into unsealed containers, and transport to a well-ventilated area. Decontaminate floor area.
Waste Disposal Method	Dispose of in accordance with local, state and federal regulations.
Precautions to be taken in Handling and Storing	Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected. Do not breathe aerosols or vapors. This material can cause asthmatic sensitization upon a single exposure.
Other Precautions	Exposure to vapors of heated MDI can be extremely dangerous.

<b>SECTION VIII - CONTROL MEASURES/PROTECTION INFORMATION</b>	
Respiratory Protection	Use NIOSH approved respirator as outlined in 30CFR11 and 29CFR 1910.134 effective for solvent and Diisocyanate vapors. Use SCBA or air-supplied respirators when TLV/PEL is exceeded.
Ventilation	Local exhaust – use in confined areas. Special – sensitized persons must not inhale vapors. Mechanical – Must be sufficient to maintain area below established TLV/PEL.
Protective Gloves	Neoprene rubber gloves
Eye Protection	Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists
Other Protective Clothing or Equipment	Use other protective equipment such as rubber aprons and a face shield if danger of splashing is possible. Eye wash station or clear water must be readily available. Enforce good hygiene practices. No smoking or open lights in work area. Exposure to liquid, vapors, mists or fumes must be minimized. Use air supplied respirators in enclosed areas and when PEL/TLV is higher than established level.
Work / Hygienic Practices	Wash contaminated clothing before use. Dispose contaminated leather shoes.



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### SECTION I - IDENTIFICATION

#### PART C

TRADE NAME: MORTARTHANE COVE MORTAR, MORTARTHANE HF, MORTARTHANE HF TOPCOAT, MORTARTHANE SL, MORTARTHANE SLP, MORTARTHANE TC

PRODUCT CLASS:

PRODUCT CODE: 11902, 115021, 11505, 110021, 110010, 11401

DESCRIPTION: THERMAL & SHOCK RESISTANT URETHANE SYSTEMS

HAZARD RATING	
0 = Least	Health 3
1 = Slight	Flammability 0
2 = Moderate	Reactivity 0
3 = High	Personal Protection G
4 = Extreme	

HAZARDOUS COMPONENTS / CAS #	OSHA PEL	ACGIH TLV	OSHA STEL	WT %
Crystalline Silica (Quartz)* CAS # 14808-60-7	10 mg/m <sup>3</sup> % SiO <sub>2</sub> + 2	0.05 mg/m <sup>3</sup>	NA	
Portland Cement CAS # 65997-15-1	10mg/m <sup>3</sup> Total Dust	10mg/m <sup>3</sup> Total Dust		
Calcium/Magnesium Hydroxide CAS # 39445-23-3	15mg/m <sup>3</sup> Total Dust	10mg/m <sup>3</sup> Total Dust		

\*Crystalline silica can be a lung injury and cancer hazard. Do not breathe dust. May cause delayed lung injury. Long term exposure can cause silicosis, a respiratory disease which can result in delayed, disabling and sometimes fatal lung injury. Crystalline silica inhaled from occupational sources can cause cancer in humans. Risk of injury is dependent on the duration and level of exposure.\*

### SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point:	4000+°F	Specific Gravity (H <sub>2</sub> O=1):	>1
Vapor Pressure (mm Hg):	N/A	Melting Point:	3000+°F
Vapor Density (Air=1):	N/A	Evaporation Rate (Butyl Acetate=1):	N/A
Solubility in Water:	Insoluble		
Appearance & Odor:	Naturally rounded sand. Various sizes. No odor		

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point:	N/A	Method Used:	
Flammable Limits in Air by Volume:	UPPER:	N/A	LOWER: N/A
Extinguishing Media:	N/A		
Special Firefighting Procedures:	N/A		
Unusual Fire and Explosion Hazards:	N/A		

### SECTION V - REACTIVITY DATA

Stability	Stable
Conditions to Avoid	None known
Incompatibility (Materials to avoid)	Hydrofluoric acid and powerful oxidizing agents.
Hazardous Decomposition or By-Products	None known
Hazardous Polymerization	Will not occur



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<b>SECTION VI - HEALTH HAZARD DATA A. Health risks and symptoms of exposure</b>	
Inhalation	Move person to fresh area if effects occur. If needed, give oxygen or artificial respiration to improve breathing. Consult a physician
Skin Contact	Promptly wash with soap and water. Do not wash with solvents. Seek medical advice if irritation develops or persists.
Eye Contact	Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.
Skin Absorption	Promptly wash with soap and water. Do not wash with solvents
Ingestion	Expected to be slightly toxic by ingestion. If swallowed, induce vomiting immediately as directed by a physician. Get medical attention immediately. Never give liquids to an unconscious or convulsing person.

<b>B. Health Hazards (Acute &amp; Chronic):</b> ACUTE – No symptoms. CHRONIC – excessive inhalation of dust may result in respiratory disease such as silicosis, pulmonary fibrosis, etc. The IARC has evaluated in Vol. 42 (monographs) that there is ‘sufficient evidence for the Carcinogenicity of crystalline silica dust to experimental animal’ and “limited evidence” with respect to humans. <b>**NOTE: Persons with lung disorders or who are sensitized should not use this product. ***</b>			
Carcinogenicity	OSHA Regulated: NO	NTP: YES	IARC Monographs: YES Level 2A Grouping
See health hazards acute and chronic for additional information concerning this product.			
Medical Conditions Generally Aggravated by Exposure:	Lung disorders and persons subject to eye irritation.		
Signs & Symptoms of Exposure:	Shortness of breath and reduced pulmonary function.		

<b>C. Emergency &amp; First Aid Procedures</b>	
Eyes	Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.
Skin	Promptly wash with soap and water. Do not wash with solvents. Seek medical advice if irritation develops or persists.
Inhalation	Move person to fresh area if effects occur. If needed, give oxygen or artificial respiration to improve breathing. Consult a physician.
Ingestion	Expected to be slightly toxic by ingestion. If swallowed, induce vomiting immediately as directed by a physician. Get medical attention immediately. Never give liquids to an unconscious or convulsing person.
Other Health Effects	Medical conditions which may be aggravated by exposure to this product include conjunctivitis of the eye, dermatitis of the skin, asthma and respiratory diseases. Sensitization may occur by skin contact.

<b>SECTION VII - SAFE HANDLING &amp; USE INFORMATION</b>	
Steps to be taken in case material is released or spilled	Do not breathe dust. Do not rely on your sight to determine if dust is in the air. Silica may be in the air without a visible dust cloud. Avoid creation of respirable dust.
Waste Disposal Method	Dispose of accordingly by local, state and federal regulations.
Precautions to be taken in Handling and Storing	Avoid creation of respirable dust. Take precaution against bag breakage.
Other Precautions	None known.



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<b>SECTION VIII - CONTROL MEASURES/PROTECTION INFORMATION</b>	
Respiratory Protection	Atmospheric levels should be maintained below the exposure limits listed in Section 2 by using engineering controls. Provide adequate exhaust ventilation and/or NIOSH approved cartridge respirator.
Ventilation	Local exhaust – to meet PEL requirements. Special – none known. Mechanical – Adequate to meet PEL requirements.
Protective Gloves	Impervious gloves, neoprene of rubber.
Eye Protection	Splash proof goggles or safety glasses with side shields.
Other Protective Clothing or Equipment	Use adequate ventilation and dust collection. To minimize exposure, wear a respirator approved for silica dust when using, handling, storing or disposing of this product. Refer to the most recent standards of ANSI (Z88.2), OSHA (29 CFR 1910.134), MSHA (30CFR Parts 56 and 57), and NIOSH Respirator Decision Logic. Maintain, clean and fit test respirators in accordance with OSHA regulations.
Work / Hygienic Practices	Avoid creating and breathing dust.

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