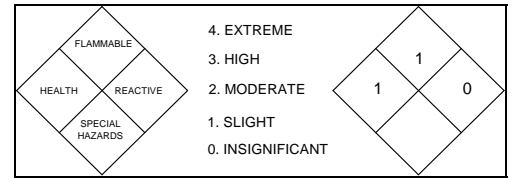


MATERIAL SAFETY DATA SHEET
ROOFING PRODUCTS INTERNATIONAL, INC.
MSDS 113 ROYAL EDGE POURABLE SEALER PART B



SECTION 1 – PRODUCT IDENTIFICATION

Product Name: Pourable Sealer Part B	24 Hour Emergency Telephone Number: 800-424-9300 CHEMTREC
Chemical Name/Synonyms: Polymethylene Polyisocyanate	Manufacturer's Name: Roofing Products International, Inc.
Chemical Family: Polyisocyanate (Polymeric MDI)	Manufacturer's Address: 57460 Dewitt St., Elkhart, IN 46517-1078
Chemical Formula: Not Established	NFPA Acute Hazard Rating: Health 1, Flammability 1, Reactivity 0 HMIS Acute Hazard Rating: Health 1, Flammability 1, Reactivity 0

SECTION 2 – CHEMICAL COMPOSITION

Ingredient Components (chemical names)	Common Name:	CAS #:	% (by weight)	Exposure Limits:
Methylenediphenyl Diisocyanate	MDI	101-68-8	41.7	OSHA CEIL 0.02 PPM TLV 0.005 PPM
Carbon Black	Channel Black	1333-86-4	16.6	PEL 3.5 mg/M³ TLV 3.5 mg/M³
MDI Oligomers	None	9016-87-9	41.7	Not Established

SECTION 3 – PHYSICAL & CHEMICAL CHARACTERISTICS

Appearance/Odor: Light black, viscous liquid, mild odor.	Physical State: Liquid	Solubility in Water: Reacts with water
Boiling Point: 341°	Specific Gravity (HO=1) 1.474(Water=1)	Melting Point: Not Applicable
Vapor Pressure: <0.0001 mm Hg @ 20° C	Vapor Density (Air=1) 8.6	Freezing Point: Not Established
Percent Volatiles: Unknown	Evaporation Rate: Unknown	Reactivity in Water: Reacts with water.
pH (Full Strength) Unknown	pH (Recommended Dilution): Unknown	Ignition Temperature: 400°C (725°F)

SECTION 4- FIRE & EXPLOSION HAZARD DATA

Flash Point: 111°C (232°F)	Flammable Limits (in air): LEL: Unknown UEL: Unknown
Extinguishing Media: Water fog, foam, CO₂, or dry chemical.	Fire Fighting Procedures: Use water spray to cool adjacent surfaces and fire exposed containers. Protect against inhalation of combustion products. Firefighters should wear full protective clothing including self-contained breathing apparatus to prevent inhalation of smoke and decomposition products. Toxic fumes and vapors may be involved.
Hazardous Decomposition Products: No Decomposition if used according to specifications.	Special Fire & Explosion Hazards: Keep work areas free from open flames, sparks, hot metal surfaces and other sources of ignition. Ground objects prone to static electricity. Heat from fire can generate flammable vapors. <u>Avoid contamination with moisture, alcohol, ammonia, amines, and alkalis that react with Isocyanates. Will react vigorously with water.</u>
Method Used: PMCC	Auto-Ignition Temperature: Product in not self-igniting.

SECTION- 5 HEALTH HAZARD DATA

Permissible Exposure Limit: Not Established	Signs and Symptoms of Exposure: Eye contact may result in conjunctival irritation and mild corneal opacity. Skin contact may result in irritative or allergic dermatitis. Inhalation of vapors may cause irritation of the mucous membrane of the nose, throat, or trachea, shortness of breath, chest discomfort, difficulty breathing and reduced pulmonary function. Exposure of fumes above the PEL may result in eye irritation, headache, chemical bronchitis, asthma-like symptoms or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, characterized by flu-like symptoms, the onset of which may be delayed. Neurological effects after exposure to high levels of Diisocyanates can include euphoria, anxiety, personality changes, memory deficits, depression or paranoia. Aerosol MDI LC₅₀: 490 mg/M³, rat: MDI LD₅₀: > 10,000 mg/kg, rat.
Effects of Overexposure: May cause minor temporary eye or respiratory system irritation. May cause skin irritation when contact is made with skin area that is cut or scratched.	
Acute: Overexposure to fumes may result in shortness of breath difficulty breathing. Long term exposure may result in permanent lung damage.	

<p>Chronic: Acute or chronic overexposure to Isocyanates may cause sensitization resulting in allergic symptoms of the lower respiratory tract, including shortness of breath and difficulty in breathing. Asthma caused by Isocyanates including MDI, may persist after removal from exposure and may be irreversible. Long term exposure to Isocyanates has been reported to cause lung damage, including reduces lung function, which may be permanent.</p>	<p>Chemical Listed as a Carcinogen (or Potential Carcinogen): Carbon black is an IARC class 2B Carcinogen and is possibly carcinogenic to humans: limited evidence in humans in the absence of sufficient evidence in experimental animals.</p>
--	---

<p>Emergency & First Aid Procedures: Eye Contact: Flush with gentle stream of water for a minimum of 15 minutes and contact a physician. Skin Contact: Clean with rubbing alcohol, followed by soap and water. When skin contact is made with a mixture of Parts A & B, the product must be removed immediately using Acetone. Inhalation: Remove to fresh air. Administer oxygen or artificial respiration, if necessary. Call physician. Ingestion: Consult a Physician. DO NOT INDUCE VOMITING. Inform the physician of the nature of the product. Primary Route of Entry: Inhalation, Skin or eye contact, and Ingestion.</p>	
--	--

SECTION 6 – REACTIVITY DATA

<p>Stability: Stable at ambient temperatures and pressures.</p>	<p>Incompatibility: Strong oxidizers, acids, bases, and moisture.</p>
<p>Hazardous Decomposition Products: Toxic gases or vapors, such as oxides of carbon and nitrogen along with traces of butadiene may be released during a fire.</p>	<p>Hazardous Polymerization: Will not occur.</p>

Conditions to Avoid:
Strong oxidizers, moisture, acid and bases. Contact with phosphorus may produce by-products.

SECTION 7 - SPILL OR LEAK PROCEDURES

<p>Steps to be taken in case material is released or spilled:</p>	
<p>Small spill: Wear protective equipment including eye protection, rubber gloves, rubber boots, and self-contained breathing apparatus in the pressure mode, or an air supplied respirator. Absorb using inert material. Use non-sparking tools. Transfer into secure DOT approved waste containers for proper disposal. Use personal protective equipment as outlined below.</p>	
<p>Large Spill: Same as small spill.</p>	
<p>Waste Disposal Method: Dispose of according to local, state, and federal regulations.</p>	

SECTION 8 – SPECIAL PROTECTION

Respiratory Protection:

Use NIOSH-Certified chemical cartridge respirator for organic vapors if exposure exceeds PEL or TLV limits.

Eye Protection:

The use of safety glasses with side shields are recommended when handling this product.

Protective Gloves:

The use of Nitrile rubber gloves are recommended to prevent skin contact.

Other Protective Equipment:

Under normal application conditions, protective glasses, gloves, and clothing are adequate. Clean and dispose of contaminated clothing after each use.

Ventilation:

Use in a well ventilated area.

SECTION 9 – SPECIAL PRECAUTIONS OR OTHER COMMENTS

Storage/Handling:

Store in cool, dry, well ventilated facility. Store and use away from all sources of direct heat and ignition. Keep containers closed when not in use.

Other Precautions:

Provide adequate ventilation and avoid prolonged or repeated contact with the skin. Wash with soap and water immediately after contact.

Work/Hygienic Practices:

Maintain good personal hygiene practices. Wash contaminated clothing before reuse. Do not eat, drink, or smoke in work areas. Wash exposed skin before eating, drinking, smoking, or applying cosmetics.

SECTION 10 - TRANSPORTATION

Regulatory Agency:

Not Regulated

Identification Number:

Not Applicable

Proper Shipping Name:

Not Applicable

Labels Required:

Not Applicable

Hazard Classification:

Not Applicable

Other Requirements:

Not Applicable

Packing Group:

Not Applicable

SECTION 11 – MISCELLANEOUS INFORMATION

Additional Comments:

None

Date of Previous MSDS:

August 2000

Changes Since Previous MSDS:

Comment change in sections: 1 thru 9

Add sections: 10,11

Telephone Number for Additional Information:

(574) 293-9096

DISCLAIMER

The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information is accurate, complete, or representative. Roofing Products International, Inc. assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons if reasonable safety procedures are not followed.