



PARSON MH LINER

DESCRIPTION: PARSON MH LINER is a high strength, fiber-reinforced, Portland Cement based, microsilica enhanced Mortar for use in rehabilitating manholes, lift station wet wells and wastewater treatment plant structures.

ADVANTAGES:

- * Cost-effective alternative to replacement
- * Stops infiltration and exfiltration
- * Restores structural integrity
- * Provides low to moderate corrosion protection
- * High Strengths and Low Permeability
- * Excellent Bond to damp surfaces
- * Apply up to 3" in a single coat
- * Spincast, Spray Gun or trowel application



PHYSICAL PROPERTIES:

Compressive Strength ASTM C-109	1 day > 4,000 psi 28 days > 9,000 psi	Bond ASTM C-882	> 2,000 psi
Flexural Strength ASTM C-293	28 days > 1,600 psi	Shrinkage ASTM C-596	28 days 0.0% (at 90% RH)
Tensile Strength ASTM C-496	28 days > 800 psi	Freeze/Thaw ASTM C-666	300 cycles, No damage
Modulus of Elasticity ASTM C-469	28 days < 4,500,000 psi	Sulfide Resistance ASTM C-267	No weight loss after 90 days in 20,000 ppm aqueous sulfuric acid solution
Permeability ASTM C-1202	< 300 coulombs		

SURFACE PREPARATION: Thoroughly clean and remove any loose or foreign materials including paints, dirt, oil, grease, surface coatings, laitance and any other bond-inhibiting material from surface to be coated, using minimum 3500 psi waterblast. Stop all active leaks. (Please refer to our Manhole Rehabilitation Specifications for product selections.) Surface should be Saturated Surface Dry (SSD) just prior to material application. Any standing water must be removed.

MIXING: Using a slow-speed mortar mixer or large mechanical jiffy mixer, add approximately 3/4 gallon of clean, potable water per 50 lb. bag of PARSON MH LINER. Add water to mixer and then add powder. Mix thoroughly for approximately 3 minutes until a uniform consistency has been obtained.

APPLICATION: Using low pressure spray equipment or trowel, apply mixed product on vertical, horizontal and overhead surfaces to a minimum thickness of 1/2". Trowel or brush to a smooth finish as soon as possible, but within two hours. If additional material is required, apply up to 2" of product within 4-6 hours, then trowel or brush to a smooth finish as soon as possible, but within two hours. Do not apply to frozen surfaces.

COVERAGE: Approximately 1 vertical foot per 50 lb. bag at 1/2 inch thick.

PACKAGING: Available in 50 lb. multiwall paper bags with moisture barrier.

STORAGE: Keep product dry and above 50°F. Shelf life should be 2 years for unopened bags when stored accordingly.

PRECAUTIONS: See MSDS for specific instructions. Use protective eye wear, cover exposed skin and use breathing protection.

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CA Liner 100

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: CA Liner 100	Product Use: Repair Product
Manufacturer's Name: PARSON ENVIROMENTAL PRODUCTS INC	Emergency Telephone: 800.535.5053
Address: PO BOX 4474 READING PA 19606	Telephone Number: 610.582.6060
Date Prepared: APRIL 2015	Date Updated:

SECTION 2: HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION
Skin Irritation 2 Serious Eye Damage 1 Skin Sensitization 1 Carcinogenicity 1A Specific Target Organ Toxicity – Single Exposure 3 Specific Target Organ Toxicity – Repeated Exposure 1
LABEL ELEMENTS
<p>Hazard Pictogram:</p> <div style="text-align: center;">  </div>
<p>Signal Word: Caution</p>
<p>Hazard Statement: Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause cancer. May be harmful if swallowed. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure.</p>
<p>Prevention: Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, and face protection. Use only outdoors or in a well-ventilated area. Do not breathe dust. Do not eat, drink or smoke when using this product.</p>
<p>Response: <u>If on skin:</u> Wash with plenty of water. Take off contaminated clothing and wash clothing before reuse. <u>If skin irritation or rash occurs:</u> get medical advice and/or attention. <u>If in eyes:</u> Rinse cautiously with water for several minutes. Remove contact lenses, if present and easily removed and continue rinsing. Immediately call a poison center or doctor. <u>If inhaled:</u> Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. <u>If exposed or concerned:</u> Get medical advice and attention.</p>
<p>Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed.</p>
<p>Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.</p>
ADDITIONAL INFORMATION
<p>Hazards not otherwise classified: Not applicable. 30.0 % of the mixture consists of ingredient(s) of unknown acute toxicity.</p>

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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

MATERIAL OR INGREDIENT	CAS #	WT. %
Silica, crystalline, quartz	14808-60-7	40-55
Calcium Aluminate	65997-16-2	60-80
Slag	65996-69-2	10-30
Vinyl Acetate Polymer	108-05-4	0.5-10
Exact composition percentage/concentration has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.		

SECTION 4: FIRST-AID MEASURES

DESCRIPTION OF THE FIRST AID MEASURE
<p>Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.</p> <p>Skin: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.</p> <p>Inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical advice/attention if you feel unwell.</p> <p>Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Give 2 cupfuls of water if victim is conscience and alert. Get medical advice/attention.</p>
IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED
<p>Eye: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns in the presence of moisture.</p> <p>Skin: Causes skin irritation. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin. May cause sensitization by skin contact.</p> <p>Inhalation: May cause respiratory tract irritation. May cause burns in the presence of moisture.</p> <p>Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.</p>
INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED
<p>Note to Physicians: Symptoms may not appear immediately.</p> <p>Specific Treatments: In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).</p>

SECTION 5 – FIRE-FIGHTING MEASURES

FLAMMABILITY
Flammability: Not flammable by WHMIS/OSHA criteria.
EXTINGUISHING MEDIA
Suitable Extinguishing Media: Treat for surrounding material. Powder, water spray, foam, carbon dioxide.
Unsuitable Extinguishing Media: Not available.
SPECIAL HAZARDS ARISING FROM THE CHEMICAL
Products of Combustion: May include, and are not limited to: oxides of carbon, hydrogen sulfide.
Explosion Data: Sensitivity to Mechanical Impact: Not available. Sensitivity to Static Discharge: Not available.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS
Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

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SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES
Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN - UP
Methods for Containment: Contain spill with inert material (sand, vermiculite, etc.) and place in a suitable container. Do not flush to sewer or allow material to enter waterways. Use appropriate Personal Protective Equipment (PPE).
Methods for Cleaning-Up: Vacuum or sweep material and place in a disposal container. Provide adequate ventilation.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING
Handling: Avoid contact with skin and eyes. Do not swallow. Good housekeeping is important to prevent accumulation of dust. Avoid generating dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Use only in well-ventilated areas. Handle and open container with care. Do not eat or drink when using. Wash hands before eating, drinking, or smoking. (See section 8)
General Hygiene Advice: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.
CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES
Storage: Keep out of the reach of children. Store in dust-tight, dry, labeled containers. Keep containers closed when not in use. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Do not store in an area equipped with emergency water sprinklers. Use corrosion-resistant structural materials and lighting and ventilation systems in the storage area. (See section 10)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS		
Exposure Guidelines		
	Occupational Exposure Limits	
Ingredient	OSHA-PEL	ACGIH-TLV
Silica, crystalline, quartz	((10 mg/m ³)/(%SiO ₂ +2) TWA (resp)) ((30 mg/m ³)/(%SiO ₂ +2) TWA (total)) ((250)/(%SiO ₂ +5) mppcf TWA (resp))	0.025 mg/m ³
Slag	15 mg/m ³ TWA (total); 5 mg/m ³ (resp)	2 mg/m ³ ((total) calcium oxide)
Vinyl Acetate Polymer	15 mg/m ³ (total); 5 mg/m ³ (resp)	10 mg/m ³ (total)
Calcium Aluminate	15 mg/m ³ (total); 5 mg/m ³ (resp)	10 mg/m ³ (total); 5 mg/m ³ (respirable)

EXPOSURE CONTROLS
Engineering Controls: Use adequate ventilation to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
INDIVIDUAL PROTECTIVE MEASURES
Personal Protective Equipment:
Eye/Face Protection: Wear approved eye (properly fitted dust- or splash-proof chemical safety goggles) / face (face shield) protection.
Skin Protection:
Hand Protection: Wear suitable gloves.
Body Protection: Wear suitable protective clothing.
Respiratory Protection: A NIOSH approved dust mask or filtering facepiece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).
General Health and Safety Measures: Handle according to established industrial hygiene and safety practices.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Powder
Color	Gray
Odor	Not Available
Odor Threshold	Not Available
Physical State	Solid
pH	Not Available
Melting Point/Freezing Point	Not Available
Initial Boiling Point and Boiling Range	Not Available
Flash Point	Not Available
Evaporation Rate	Not Available
Flammability	Not Flammable
Lower Flammability/Explosive Limit	Not Available
Upper Flammability/Explosive Limit	Not Available
Vapor Pressure	Not Available
Vapor Density	Not Available
Relative Density/Specific Gravity	2.8 to 3.0
Solubility	Partial
Partition coefficient: n-octanol/water	Not Available
Auto-Ignition Temperature	Not Available
Decomposition Temperature	Not Available
Viscosity	Not Available
Oxidizing Properties	Not Available
Explosive Properties	Not Available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY
No dangerous reaction known under conditions of normal use.
CHEMICAL STABILITY
Stable under normal storage conditions. Keep dry in storage.
POSSIBILITY OF HAZARDOUS REACTIONS
No dangerous reaction known under conditions of normal use.
CONDITIONS TO AVOID
Heat. Incompatible materials. Moisture.
INCOMPATIBLE MATERIALS
Acids. Ammonium salts. Aluminum. Alkalis.
HAZARDOUS DECOMPOSITION PRODUCTS
May include, and are not limited to: oxides of carbon and hydrogen sulfide.

SECTION 11: TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, skin absorption, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns in the presence of moisture.

Skin: Causes skin irritation. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin. May cause sensitization by skin contact.

Inhalation: May cause respiratory tract irritation.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Acute Toxicity:

Ingredient	LC50	LD50
Silica, crystalline, quartz	Not available.	Oral 500 mg/kg, rat
Calcium Oxide (Slag)	Not available.	Intraperitoneal 3059 mg/kg, mouse.
Vinyl Acetate Polymer	Not available.	Not available.
Calcium Aluminate	Not available.	Not available.

Calculated overall Chemical Acute Toxicity Values

LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
Not available.	Not available.	Not available.

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Silica, crystalline, quartz	G-A2, I-1, N-1, O, CP65
Slag	Not listed.
Vinyl Acetate Polymer	CP65
Calcium Aluminate	Not listed.

(* See Section 15)

DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT-TERM AND LONG-TERM EXPOSURE

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Causes serious eye damage.

Respiratory Sensitization: Based on available data, the classification criteria are not met.

Skin Sensitization: May cause an allergic skin reaction.

STOT-Single Exposure: May cause respiratory irritation.

Chronic Health Effects:

Carcinogenicity: May cause cancer.

Germ Cell Mutagenicity: This product is not classified as a mutagen.

Reproductive Toxicity:

Developmental: Based on available data, the classification criteria are not met.

Teratogenicity: Not hazardous by WHMIS/OSHA criteria.

Embryotoxicity: Not hazardous by WHMIS/OSHA criteria.

Fertility: Based on available data, the classification criteria are not met.

STOT-Repeated Exposure: Causes damage to organs through prolonged or repeated exposure.

Aspiration Hazard: Based on available data, the classification criteria are not met.

Toxicologically Synergistic Materials: Not available.

Other Information: Not available.

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SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY
Acute/Chronic Toxicity: May cause long-term adverse effects in the aquatic environment.
PERSISTENCE AND DEGRADABILITY
Not available.
BIOACCUMULATIVE POTENTIAL
Bioaccumulation: Not available.
MOBILITY IN SOIL
Not available.
OTHER ADVERSE EFFECTS
Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS
Disposal Method: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.
Other Disposal Recommendations: Not available

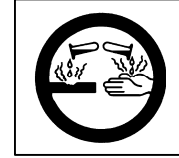
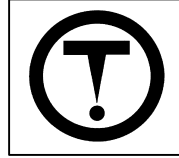
SECTION 14: TRANSPORT INFORMATION

UN NUMBER
Not regulated.
UN PROPER SHIPPING NAME
Not applicable.
TRANSPORT HAZARD CLASS (ES)
Not applicable.
ENVIRONMENTAL HAZARDS
Not available.
SPECIAL PRECAUTIONS
Do not handle until all safety precautions have been read and understood.

SECTION 15: REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL				
MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012				
SARA Title III				
Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Silica, crystalline, quartz	Not listed.	Not listed.	Not listed.	Not listed.
Slag	Not listed.	Not listed.	Not listed.	Not listed.
Vinyl Acetate Polymer	Not listed.	Not listed.	Not listed.	Not listed.
Calcium Aluminate	Not listed.	Not listed.	Not listed.	Not listed.
California Proposition 65: This product contains a chemical known to the state of California to cause cancer.				

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HMIS-Hazardous Materials Identification System	
Health:	2*
Fire:	0
Reactivity:	0

SECTION 16: OTHER INFORMATION

Date of Preparation:	
Version:	Initial Issue
Revision Date:	
Prepared by:	Craig S. Gaul

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