W. R. GRACE  
MATERIAL SAFETY DATA SHEET  
Product Name: Perm-A-Barrier Liquid, Part B  
MSDS ID Number: M-85817  
MSDS Date: 01/20/2009  

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION  
Product Name: Perm-A-Barrier Liquid, Part B  
MSDS Number: M-85817  
Cancelled MSDS Number: M-85722  
MSDS Date: 01/13/2004  
Chemical Family Name: Fluid applied made of Synthetic rubber latex.  
Product Use: Waterproofing  
Chemical Formula: Mixture-NA  
CAS # (Chemical Abstracts Service Number): Mixture-NA  
Manufactured by:  
W.R.Grace & Co.-Conn.  Grace Canada, Inc.  
62 Whittemore Avenue  294 Clements Road West  
Cambridge, MA 02140  Ajax, Ontario L1S 3C6  
In Case of Emergency Call:  
In USA: (617) 876-1400    In Canada: (905) 683-8561

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS  
<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS#</th>
<th>Percent (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene-Butadiene block copolymer</td>
<td>009003-55-8</td>
<td>50-100</td>
</tr>
</tbody>
</table>

SECTION 3 - HAZARDS IDENTIFICATION  
Emergency Overview:
Caution!  
Causes eye irritation.  
Causes skin irritation.  
Product reacts with other component.  
Reaction is exothermic, releasing heat and fumes.  
Mixed product contained in pail may reach temperatures of 291°F.  
Contact with hot material will result in burns.  
Do not seal containers once mixed with other component.  
Sealed container explode due to pressure from reaction.  

HMIS Rating:  
Health: 1  
Flammability: 0  
Reactivity: 0  
Personal Protective Equipment: B, G (See Section 8)  

Potential Health Effects:  
Inhalation: Not expected to be harmful. However, if mixed material is allowed to set in the container. Temperature up to 291°F can be reached, liberating water vapor, Carbon Disulfide and other Hydrocarbons. Inhalation of those materials can cause irritation. Prolonged inhalation can cause lung damage.  
Effects include: Flu-like symptoms (metal fume fever).  
Eye Contact: Eye contact causes irritation.  
Skin Contact: Skin contact causes irritation.  
Skin Absorption: Not expected to be harmful if absorbed through the skin.  
Ingestion: Due to the physical nature of this product, ingestion of this product is not likely. If ingested, causes irritation to the linings of the mouth, esophagus and stomach. Effects include: Nausea, vomiting, sneezing, coughing, labored breathing and burns.

SECTION 4 - FIRST AID MEASURES:  
Skin Contact: In case of skin contact, clean fingernails and wash skin with soap and water. If residue remains, clean with waterless handcream or abrasive soap. Never use solvents. If discomfort or irritation persists, consult a physician.
Remove contaminated clothing and wash before reuse.

**Eye Contact:** Flush eyes with water for at least 15 minutes while holding eyelids open. If discomfort or irritation persists, consult a physician.

**Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. If discomfort or irritation persists, consult a physician.

**Inhalation:** If symptoms develop, get fresh air. If symptoms persist, consult a physician. If breathing has stopped, give artificial respiration then oxygen if needed.

### SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

- **Flash Point:** >300°F
- **Flash Point Method:** Estimated
- **Lower Explosion Limit:** Not Available
- **Upper Explosion Limit:** Not Available
- **Auto-Ignition Temperature:** Not Available

**NFPA Rating:**

- **Health:** 1
- **Flammability:** 1
- **Reactivity:** 0

**Extinguishing Media:** In case of fire, use water spray, dry chemical, Carbon dioxide or foam.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to vapors or products of combustion exist. Water may be used to cool containers to prevent pressure build-up and possible auto-ignition or explosion. Avoid breathing hazardous vapors or products of combustion, keep upwind. Isolate area and keep unnecessary people away. Prevent run-off from fire control or dilution from entering streams or drinking water supplies.

**Unusual Fire and Explosion Hazards:** None unless noted below.

### SECTION 6 - ACCIDENTAL RELEASE MEASURES:

**Spills/Leaks:** Use proper personal protective equipment. Do not flush to sewer or allow to enter waterways. Keep unnecessary people away.

Oil spills released directly to waterways may be subject to National Response Center (1-800-424-8802) reporting. Immediately contact your company's environmental coordinator or the Grace Environmental Health and Safety Department.

### SECTION 7 - HANDLING AND STORAGE

**Precautionary Measures:** Avoid contact with eyes, skin and clothing. Do not take internally. Practice good personal hygiene to avoid ingestion. Use only with adequate ventilation. Wash clothing before reuse. Wear respiratory protection during spray applications. Reaction releases heat and fumes if unused mixed product is allowed to sit in pail. Contact with hot material will result in burns. Use all product within 30-60 minutes of mixing to avoid an exothermic reaction (release of heat and fumes). Reaction times may vary depending upon temperature and mixing conditions. Promptly cleanse hands after handling.

FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

### SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

#### EXPOSURE GUIDELINES (US)

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>Ceiling</td>
</tr>
<tr>
<td>Styrene-Butadiene block copolymer</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
EXPOSURE GUIDELINES (CANADA)
Employers should consult local Provincial regulatory limits for exposure guidelines which may vary locally.

Engineering Controls: Not generally required.

Personal Protective Equipment:
- Respiratory Protection: Respiratory protection may not be required in well ventilated areas. However, indoors or where ventilation is inadequate, the use of respirators equipped with organic vapor cartridges is required. During spray applications, the use of a dust/mist respirator such as a 3M Type P-95 with organic vapor (OV) protection (or equivalent) is required, but the specific respirator(s) may not adequately protect against actual working conditions which must be assessed periodically as work progresses. (See Work/Hygienic Practices.)
- Skin Protection: Impervious (PVC, latex or nitrile) gloves should be worn any time direct contact is possible.
- Eye Protection: At minimum, safety glasses with side shields should be worn where exposure to excessive dust or spray is likely.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
- Physical State: Liquid
- Appearance/Odor: A milky white aqueous dispersion with mild aromatic odor.
- Odor Threshold: (ppm) Not Determined
- pH: 9-12
- Vapor Pressure: (Mm Hg) Unknown
- Vapor Density: (Air = 1) Unknown
- Solubility In Water: Miscible
- Specific Gravity: (Water = 1) 1.0
- Evaporation Rate: (Butyl Acetate = 1) Unknown
- Boiling Point: >212°F/100°C
- Viscosity: Unknown
- Bulk Density: (Pounds/Cubic Foot)(Pcf) ~60
- % Volatiles (gr/L): (70°F) (21°C) Not Available

SECTION 10 - STABILITY AND REACTIVITY
- Chemical Stability: Stable
- Conditions To Avoid: Strong oxidizers.
- Hazardous Polymerization: Will not polymerize.
- Hazardous Decomposition Products: Carbon dioxide and Carbon monoxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Ingredient (No data unless listed.)</th>
<th>CAS Number</th>
<th>LD50 and LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carcinogenicity:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Styrene-Butadiene block copolymer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mutagenicity:</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Teratogenicity:</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Reproductive Toxicity:</td>
<td>Not applicable.</td>
<td></td>
</tr>
</tbody>
</table>

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SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate: No data available for product.
Ecotoxicity: No data available for product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Procedures: Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing waste for disposal. According to EPA (40 CFR § 261), waste of this product is not defined as hazardous. Dispose of waste in accordance with all applicable regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Not Applicable
UN/NA Number: Not Applicable
Domestic Hazard Class: Nonhazardous
Surface Freight Classification: Adhesive Cement N.O.I.
Label/Placard Required: Not Applicable

SECTION 15 - REGULATORY INFORMATION

REGULATORY CHEMICAL LISTS:

CERCLA (Comprehensive Response Compensation and Liability Act):
(Not present unless listed below)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Wt %</th>
<th>CERCLA RQ</th>
</tr>
</thead>
</table>

SARA Title III (Superfund Amendments and Reauthorization Act)

| Health Immediate (acute) | Yes |
| Health Delayed (chronic) | No  |
| Flammable                | No  |
| Reactive                 | No  |
| Pressure                 | No  |

302 Reportable Ingredients (Identification Threshold 1%):

<table>
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<tr>
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<th>CAS #</th>
<th>Wt %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-Butadiene</td>
<td>000106-99-0</td>
<td>.005</td>
</tr>
<tr>
<td>Styrene</td>
<td>000100-42-5</td>
<td>.02</td>
</tr>
</tbody>
</table>

313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Wt %</th>
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</tr>
</tbody>
</table>

National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: 75 g/l (as applied)

WHMIS Classification(s): D2 B

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

State Regulatory Information:

California Proposition 65: WARNING! This product contains substances known to the state of California to cause cancer, birth defects or other reproductive harm.

Massachusetts Hazardous Substance List(Identification threshold 0.001%(1ppm)):

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<th>Wt %</th>
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<tr>
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<td>000100-42-5</td>
<td>.02</td>
</tr>
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</table>

New Jersey Hazardous Substance List(Identification threshold (0.1%)):
Pennsylvania Hazardous Substance List (Identification threshold 0.01%):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Wt %</th>
</tr>
</thead>
</table>
| CHEMICAL INVENTORY STATUS:
All chemicals in this product are listed or exempt from listing in the following countries:

<table>
<thead>
<tr>
<th>US</th>
<th>CANADA</th>
<th>EUROPE</th>
<th>AUSTRALIA</th>
<th>JAPAN</th>
<th>KOREA</th>
<th>PHILIPPINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

SECTION 16 - OTHER INFORMATION

Non-Hazardous Ingredient Disclosure:

Chemical Name | CAS Number
--- | ---
Water | 007732-18-5

Prepared by: EH&S Department
Approved by: EH&S Department
Approved Date: 01/20/2009

Disclaimer:

"The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection."