

MVR 8000 Encapsulant Moisture Vapor Reducer

Description:

MVR 8000 Encapsulant Moisture Vapor Reducer is a polymer based, solvent free product with multiple uses. MVR 8000 encapsulates old adhesive residue, (including cut-back asphalt adhesive residue). It will reduce vapor emission levels on concrete slabs from 9lbs or 85% RH down to acceptable levels. MVR 8000 can also be used on concrete slabs with moisture levels up to 12lbs or 90% RH when used in a two-coat application. MVR 8000 can seal dusty substrates, reduce porosity of gypsum and is alkali resistant. MVR 8000 was developed for use on "Green" concrete slabs in fast track construction. Once the concrete slab is poured the flooring contractor must wait a minimum of 90-120 days to allow the concrete to dry to acceptable levels before installing the floor. The use of MVR 8000 allows the flooring contractor to install the flooring prior to the normal wait time (as soon as 28-days).

MVR 8000 is recommended for use over wood or concrete substrates with old adhesive residue prior to the installation of new flooring. Old adhesives residue not properly removed or encapsulated is a major cause for failures due to telegraphing, loss of bond and incompatibility of the old adhesive and new flooring. MVR 8000 can be used to encapsulate old black asphalt adhesive residue. **DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST, OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVE, OR OTHER BLACK ADHESIVE. THESE PRODUCTS MAY CONTAIN ASBESTOS FIBERS AND/OR CRYSTALLINE SILICA. If old floor covering and/or adhesives need to be removed, consult and follow RFCI's Recommended Work Practices for Removal of Resilient Floor Coverings. Remove any trowel ridges and loose adhesive that may be dry & brittle, which would cause the old adhesive to flake off the substrate. Once the old adhesive has been properly removed it is ready for the application of the MVR 8000. (When used as an encapsulant it requires a two-coat application).**

When used as a moisture vapor reducer over concrete slabs the concrete must be porous, so that the MVR 8000 can penetrate into the pores of the concrete. To test for porosity, place 1" droplets of water over various locations throughout the installation. If the water does not significantly absorb into the concrete within 10-minutes, the concrete must be treated as non-porous. The concrete must also be cleaned and free of dust, dirt, wax, sealers, curing compounds, or any foreign substance that would prohibit the MVR 8000 from penetrating into the concrete. *IT IS HIGHLY RECOMMENDED TO ONLY USE PREMIUM ADHESIVES FOR THIS TYPE OF EXTREME APPLICATION (* i.e. recommend adhesives: Signature Series 4099, Signature Series 4100, Signature Series 4330, Signature Series 5080, Signature Series 5082, Fusion Series 4600, Fusion Series 4700, Fusion Series 4323).

Application:

The installation area must be properly acclimated at a minimum temperature of 65 degrees F and Relative Humidity below 60%. The HVAC system must be running and doors and windows must be attached to achieve a secure environment.

Saw cuts, construction joints, etc. should be thoroughly cleaned and treated as follows prior to the application of MVR 8000.

- Using a paintbrush, thoroughly coat all surfaces of the joint or crack with MVR 8000 to ensure that a continuous membrane will be achieved once the application of MVR 8000 has been completed, OR
- Using a filler material intended for that purpose, fill the joint or crack to just below the surface level of the concrete so that a continuous membrane of MVR can be achieved.
- Expansion joints should not be bridged. Para-Chem does not warrant against film breakage due to movement of concrete joints and cracks.

Encapsulant:

Covering old adhesive residue requires two coats of MVR 8000. Pour a generous amount of MVR 8000 into a paint tray and spread using a 3/8" nap paint roller (Do not pour MVR 8000 directly on the substrate). Spread in one direction and apply enough to cover old adhesive residue. Remove any puddles by moving excess material away from puddle area. Allow material to dry to touch (minimum of 1- hour) before applying the next coat. For the application of the second coat, cross roll at a 90-degree angle from the original coat using a short nap roller. The second coat will require less material than the first coat. Once the second coat is applied allow to dry for 24-hours before installation begins. If patching or leveling is required, use a Portland based cementitious patching compound (Parabond PP+, Parabond PFU) after MVR 8000 has been allowed to properly dry.

Moisture Vapor Reduction up to 9-lbs or 85% Relative Humidity:

Concrete must be clean, visibly dry, free of dust, dirt, wax, sealers or curing compounds or any foreign chemical that would prohibit MVR 8000 from penetrating into the concrete. When used to reduce moisture levels in concrete from a maximum of 9-lbs (ASTM F-1869) or Relative Humidity levels of 85% (ASTM F-2170) apply material in a one-coat application. Testing for alkalinity should be done using pH paper, pencil or digital meter, with readings not to exceed 11. Substrate must be properly prepared prior to the use of MVR 8000. Coverage in a one-coat application is approximately 300 sq. ft/gal depending on porosity of the concrete. (We suggest you mask off a 300-square foot area and use a minimum of one-gallon). Pour MVR 8000 into a paint tray and roll using a 3/8" nap paint roller (Do not pour MVR 8000 directly on the substrate). Do not allow MVR 8000 to puddle. Remove any puddles by moving excess material away from puddle area. Allow to dry a minimum of 4-hours, after the material has turned clear, prior to the installation of floor covering. Patch and level any areas after the MVR 8000 has dried using a Portland based cementitious patching compound (Parabond PP+, Parabond PFU).

Moisture Vapor Reduction up to 12-lbs or 90% Relative Humidity:

Concrete must be clean, visibly dry, free of dust, dirt, wax, sealers or curing compounds or any foreign chemical that would prohibit MVR 8000 from penetrating into the concrete. When used to reduce moisture levels in concrete from a maximum of 12-lbs (ASTM F-1869) or Relative Humidity levels of 90% (ASTM F-2170) apply material in a two-coat application. Testing for alkalinity should be done using pH paper, pencil or digital meter, with readings not to exceed 11. Coverage in a two-coat application is approximately 225 sq. ft. per gallon depending on porosity of the concrete. (We suggest that you mask off 300-ft area and use a minimum of 1-gallon for the first-coat. Pour MVR 8000 into a paint tray and roll using a 3/8" nap paint roller (Do not pour MVR 8000 directly on the substrate). Do not allow MVR 8000 to puddle. Remove any puddles by moving excess material away from puddle area. Allow to dry to the touch (approximately 1-hour) prior to the application of the second-coat. Apply the second coat using a short nap paint roller at a 90-degree angle to the first coat. Allow to dry for 24-hours prior to the installation of floor covering. Patch and level any areas after the MVR 8000 has dried using a Portland based cementitious patching compound (Parabond PP+, Parabond PFU).

Clean Up:

MVR 8000 can be cleaned using warm water and soap prior to drying. Once dried, the material will need to be scraped or mechanically removed.

Coverage:

Encapsulant -	2 coats:	225 sq, ft./gallon
Moisture Reducer -	1 coat:	300 sq. ft./gallon
Moisture Reducer –	2 coats:	225 sq. ft./gallon

CALIFORNIA VOC (Volatile Organic Compound) COMPLIANCE:

SCAQMD Rule 1168: VOC compliant sealant. SCAQMD Rule 443.1: Grams of VOC per Liter of Material < 86 grams/liter. Grams of VOC per Liter of Coating < 26 grams/liter WARNING!

Follow the RFCI's Recommended Work Practices for Removal of Resilient Floor Coverings.

Warranty:

Para-Chem warrants MVR 8000 Encapsulant Moisture Vapor Reducer when used in accordance with all of the instructions and precautions stated both on the label and on the Technical Data Sheet as follows: When used as a single coat application, applied over a properly prepared substrate. MVR 8000 will reduce concrete moisture-vapor emission levels from 9-lbs per 24-hrs per 1,000 sq. ft. when tested in accordance to ASTM F-1869 or 85% Relative Humidity when tested in accordance to ASTM F-2170, to an acceptable level. pH levels must not exceed 11.

When used as a double-coat application, apply over a properly prepared substrate, MVR 8000 will reduce concrete moisture vapor emission levels from 12-lbs per 24-hrs per 1,000 sq.ft. when tested in accordance to ASTM F-1869 or 90% Relative Humidity when tested in accordance to ASTM F-2170 to an acceptable level. pH levels must not exceed 11.

When used as a double-coat application, applied over properly prepared substrate, MVR 8000 can be applied over well-bonded hard adhesive residue. Residue is defined as no ridges and smooth to the touch.

Specific exclusions include but are not limited too:

- Improper Maintenance
- Installation in a facility without a functioning HVAC
- Use over a concrete slab with moisture vapor emission levels above 9 lb's or 85% when tested by ASTM F-1869 and/or ASTM F-2170 respectively using a single coat application
- Use over a concrete slab with moisture vapor emission levels above 12 lb's or 90% when
- tested by ASTM F-1869 and/or ASTM F-2170 respectively using a double coat application
- Use over a concrete sub-floor with a pH above 11
- Use over a concrete sub-floor that is non-porous
- Use over Expansion Joints
- Use where Hydrostatic Pressure is present

LIMITED WARRANTY:

Para-Chem provides this limited warranty to the original homeowner for the installation of MVR 8000 Encapsulant /Moisture Vapor Reducer. In order for this limited warranty to be effective, the following conditions (the "Warranty Conditions") must exist: (1) the application of the MVR 8000 Encapsulant / Moisture Vapor Reducer must be in accordance with current literature, label instructions and technical bulletins published by Para-Chem; (2) the sub floor was dry at the time of installation and met all the requirements of the installation guidelines, and had no prior history of moisture problems at the time the flooring products were installed. This limited warranty covers damage only to the above stated approved flooring products resulting from the migration of moisture through the concrete from the underlying soil ("sub floor moisture migration") for a period of up to 3-years from the date of installation. This limited warranty does not cover damage caused by sub floor moisture or water migration resulting from floods, storms, hurricanes, tornadoes, other Acts of God or any external man made or natural water or moisture sources except for normal migration of moisture through the soils. Para-Chem's limited warranty for MVR 8000 Encapsulant / Moisture Vapor Reducer provides that if the approved flooring products have been installed in a residence and are damaged by sub floor moisture migration and the Warranty Conditions have been satisfied, then Para-Chem will pay for the reasonable costs of repair or replacement of the portion of the floor is the exclusive remedy under this limited warranty in the event of damage to the flooring due to the sub floor moisture migration caused by the failure of MVR 8000 Encapsulant / Moisture Vapor Reducer to prevent such migration caused by the failure of MVR 8000 Encapsulant / Moisture Vapor Reducer to installed in a residence and are damaged of the portion of the floor is the exclusive remedy under this limited warranty in the event of damage to the flooring due to the sub floor moisture migration when the Warranty Conditions have been satisfied. Para-Chem reserves the right to inspect and/or conduct all tests necessary on all claims prior to any repair or replacement authorization.

ANY WARRANTIES ARISING OUT OF THE SALE OR USE OF MVR 8000 ENCAPSULANT /MOISTURE VAPOR REDUCER EXCEPT FOR THE ABOVE LIMITED WARRANTY, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED AND DISCLAIMED PARACHEM SHALL NOT BE LIABLE FOR LOSS OR USE OF ANY OTHER INCIDENTAL OR CONSEQUENTIAL COSTS, EXPENSES OR DAMAGES INCURRED BY THE PURCHASER OR BY ANY OTHER PERSON. THE REMEDIES AS MORE FULLY DESCRIBED IN ABOVE LIMITED WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES AVAILBLE TO YOU FOR ANY BREACH BY PARA-CHEM THAT YOU CAN PROVE OF THE EXPRESSED AND/OR IMPLIED WARRANTIES ARISING FROM THIS SALE. THESE WARRANTIES EXCLUDE CONSEQUENTIAL AND INCIDENTAL DAMAGES INCLUDING BUT NOT LIMITED TO REMOVAL OR DAMAGE TO MOLDINGS, CABINETS, BUILT-IN APPLIANCES, CARPETING, DRYWALL, WALLPAPER, AND PAINT. THE REMEDIES IN THESE WARRANTIES EXCLUDE ALL RELOCATION COSTS ASSOCIATED WITH ANY REPAIR OR REPLACMENT OF THE FLOORING. YOU UNDERSTAND AND AGREE THAT ALL INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE SOLELY YOUR RESPONSIBILITY AND ARE EXCLUDED AS A POTENTIAL REMEDY FOR ANY BREACH BY THAT YOU CAN PROVE OF THE EXPRESSED AND IMPLIED WARRANTIES ARISING FROM THIS SALE. UNLESS A STATEMENT MADE IN THIS DOCUMENT IS SPECIFICALLY IDENTIFIED AS A WARRANTY, ANY OTHER STATEMENTS MADE HEREIN, OR BY YOUR SELLER, ARE NOT WARRANTIES AND ARE NOT PART OF THE BASIS OF THE BARGIAN FOR THE SELL OF MVR 8000 ENCAPUSLANT / MOISTURE VAPOR REDUCER.

THIS LIMITED WARRANTY SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF SOUTH CAROLINA AND ANY APPLICABLE FEDERAL LAWS OF THE UNITED STATES OF AMERICA. ANY ACTION BROUGHT SEEKING THE RESOLUTION OF ANY CONTROVERSY ARISING OUT OF OR RELATING TO ANY WARRANTIES REFERENCED HEREIN SHALL BE BROUGHT IN THE COURTS OF THE STATE OF SOUTH CAROLINA OR IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF SOUTH CAROLINA.

MATERIAL SAFETY DATA SHEET

Para-Chem, Inc.[®], PO Box 127, Simpsonville, SC 29681 24 Hour Emergency Telephone: (864) 967-7691

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: MVR 8000

CHEMICAL FAMILY: Moisture barrier sealant – acrylic polymer solution

SECTION 2. HAZARDOUS INGREDIENTS AND EXPOSURE LIMITS

Chemical Name Dipropylene Glycol n-Butyl Ether

CAS % by Number Weight 29911-28-2

ACGIH TLV 100 ppm (TWA)

OSHA PEL 100 ppm (TWA)

SECTION 3. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY: Eyes, Skin, Inhalation. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known. POTENTIAL HEALTH EFFECTS:

EYE CONTACT: May cause slight irritation, redness, tearing.

SKIN CONTACT: May cause slight irritation. Excessive contact may cause reddening.

2.5

INGESTION: May cause irritation to mouth, throat, and digestive system with upset stomach, nausea, diarrhea.

INHALATION: May cause slight irritation to throat, nose, and lungs if misted or as concentrated vapor. CHRONIC: None known.

SECTION 4. FIRST AID MEASURES

EYE CONTACT: Flush with water for 15 minutes. Call physician if irritation occurs.

SKIN CONTACT: Wash with soap and water.

INGESTION: To conscious person, give two glasses of water. Call physician. INHALATION: Move person to fresh air.

SECTION 5. FIRE-FIGHTING MEASURES

FLASH POINT (°)F: None.

FIRE-FIGHTING INSTRUCTIONS: Water for dried material. Use protective clothing and self-contained breathing apparatus.

DECOMPOSITION PRODUCTS: Dried material may produce CO, CO₂, H₂O, oxides of nitrogen, NH₃, smoke, and hydrocarbons.

SECTION 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spill. Transfer spill material to secure container(s). Dispense sand, sawdust, or vermiculite and absorb spill residue. Collect and place in waste container. Wash area thoroughly with water.

SECTION 7. HANDLING AND STORAGE

HANDLING: Use good hygienic practices. (Wash hands before eating, using washroom, or smoking.) STORAGE: Store above 40° F. Keep from freezing.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION: Wear safety glasses with side shields or splash goggles where contact with material is likely.

SKIN PROTECTION: Wear impervious rubber gloves and suitable protective clothing where contact with material is likely.

RESPIRATORY PROTECTION: Not normally required with good ventilation. Use a NIOSH approved respirator with organic cartridge under conditions where vapors are concentrated.

ENGINEERING CONTROLS: Normal room ventilation. Site-specific mechanical exhaust where processing conditions or location create accumulation or concentration of fumes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (°F): 212
SPECIFIC GRAVITY (WATER = 1): 1.03
VAPOR PRESSURE: Same as water.
VAPOR DENSITY(air=1): Same as water.
% VOLATILE BY WEIGHT: 74.5
pH: 8.7
APPEARANCE AND ODOR: Hazy, white thin liquid with mild acrylic odor.

SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable. POLYMERIZATION: Will not occur. CONDITIONS TO AVOID: Addition of strong alkali. HAZARDOUS DECOMPOSITION PRODUCTS: None.

SECTION 11. TOXICOLOGICAL INFORMATION

<u>Dipropylene Glycol n-Butyl Ether (DPGnBE)</u>: Oral LD₅₀ (male rat) - 4.4 g/kg; (female rat) - 3.7 g/kg. Skin LD₅₀ (rats) > 2 g/kg; (male rabbits) -6.49 g/kg; (female rabbits) - 5.33 g/kg. Inhalation LC₅₀ (rats) > 2.04 mg/l/4 hrs.

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative. DPGnBE has a very low order of toxicity. It may cause minor irritation to the eyes with reversible effects. It is not listed as a carcinogen by IARC, NTP, or OSHA.

SECTION 12. ECOLOGICAL INFORMATION

<u>Dipropylene Glycol n-Butyl Ether (DPGnBE)</u>: Bioconcentration potential is low (BCF less than 100). Potential for mobility in soil is very high (Koc between 0 and 50). Soil organic carbon/water partition coefficient (Koc) is estimated to be 10-21. Henry's law constant (H) is estimated to be 3.78^{-07} atm.m³/mole. Material is readily biodegradable. In an atmospheric environment, DPGnBE is estimated to have a tropospheric half-life of 2.6 hr. DPGnBE is practically non-toxic to aquatic organisms on an acute basis. Acute LC50 in guppy (Poecilia reticulata) is 841 mg/l. Acute LC50 in water flea (Daphnia Magna) is > 1000 mg/l.

SECTION 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with federal, state and local regulations.

SECTION 14. TRANSPORT INFORMATION

For domestic transportation purposes, this product is not designated as a hazardous material by the U.S. Department Of Transportation.

SECTION 15. REGULATORY INFORMATION

TSCA: The components of this product are listed on the TSCA inventory. Section 311 and 312 Health and Physical Hazards: Immediate Delayed Fire Pressure Reactivity [] [] [] [] [] Section 313: No chemicals in amounts requiring notification. VOLATILE ORGANIC CHEMICALS: < 2.6 % or 0.22 pounds/gal. Dipropylene Glycol n-Butyl Ether -2.5 % HAZARDOUS AIR POLLUTANTS: None CALIFORNIA VOC (Volatile Organic Compound) COMPLIANCE: SCAQMD Rule 1168: VOC compliant sealant. SCAQMD Rule 443.1: Grams of VOC per Liter of Material < 86 grams/liter. Grams of VOC per Liter of Coating < 26 grams/liter.

SECTION 16. OTHER INFORMATION

HMIS RATINGS:Health = 1Flammability = 0Reactivity = 0Personal Protective Equipment = BHazard rating scale:0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe

Para-Chem, Inc. believes the statements, technical information and recommendations contained herein are reliable. They are given without warranty or guarantee of any kind, expressed or implied.

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