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VM LIQUID MEMBRANE  
PART B (activator)

## SECTION I

CHEMICAL NAME & SYNONYMS: Polymeric Isocyanate  
CHEMICAL FAMILY: Isocyanate  
TRADE NAME & SYNONYMS: VM Liquid Membrane  
FORMULA: Mixture

## SECTION II – HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>C.A.S. #</u>	<u>%</u>	<u>TLV EXPOSURE LIMITS</u>
4.4 Diphenylmethane Diisocyanate	101-68-8	55-60	0.02 ppm
Polymeric Diphenylmethane Diisocyanate	9016-87-9	30-35	0.02 ppm
MDI Homopolymer	25686-28-6	8-12	N/A

## SECTION III – PHYSICAL DATA

BOILING POINT (°F):	N. App.	PERCENT VOLATILE BY VOLUME:	N. App.
VAPOR PRESSURE (mmHg @ 20°C):	None		
VAPOR DENSITY (AIR=1):	N. App.	EVAPORATION RATE (BUTYL ACETATE=1):	N. App.
SPECIFIC GRAVITY (H <sub>2</sub> O=1):	1.25		

SOLUBILITY IN WATER: 50 ppm (deionized water)  
APPEARANCE AND ODOR: Black in color; no particular odor @ 25°C, bituminous odor @ 205°C

## SECTION IV – FIRE AND EXPLOSION HAZARDS

FLASH POINT (METHOD USED): 260°C (C.O.C.)  
FLAMMABLE LIMITS: N. App.

EXTINGUISHING MEDIA: Foam, dry chemical, CO<sub>2</sub>  
SPECIAL FIRE FIGHTING PROCEDURES: Use of water directly on material may spread fire and cause frothing.

UNUSUAL FIRE/EXPLOSION HAZARDS: Fumes/vapors generated by hot material may become inflammable when in contact with direct flame.

## SECTION V – HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE(S):

SIGNS/SYMPTOMS/EFFECTS OF OVEREXPOSURE: Irritation to the eyes, and the skin after prolonged contact will stain temporarily. Wheezing, shortness of breath and allergic respiratory reaction will occur in inhaled. Irritation and nausea in ingested. Acute oral LD50 in a rat at >5000 mg/kg.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush with cold water for 15 minutes, Consult physician  
SKIN: Wash thoroughly with soap and water. Alcohol may be helpful.  
INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.  
INGESTION: Do NOT induce vomiting. Give a glass of water. Consult a physician or Poison Control Center immediately.

## SECTION VI – REACTIVITY DATA

STABILITY: Stable  
CONDITIONS TO AVOID: Temperatures above 120° F or below 75° F.

HAZARDOUS POLYMERIZATION: May occur.  
CONDITIONS TO AVOID: None

INCOMPABILITY (MATERIALS TO AVOID): Water, strong bases. Alcohol, metal compounds, surface active agents.  
HAZARDOUS DECOMPOSITION PRODUCTS: CO, NO, Hydrogen Cyanide

## SECTION VII – SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:  
For all spills, allow material to cool and scrape material into appropriate containers.

WASTE DISPOSAL METHODS:  
Dispose of in accordance with federal, state and local authorities.

## SECTION VIII – SPECIAL PROTECTION INFORMATION

VENTILATION (TYPE): Use local and explosion proof mechanical exhaust to maintain exposure limits below TLV.

RESPIRATORY PROTECTION: If TLV is exceeded, a NIOSH/MSHA jointly approved air supplied respirator is advised in absence of proper environmental controls. OSHA regulations also permit other respirators under specified conditions.

PROTECTIVE CLOTHING & EQUIPMENT: Splash goggles, resistant gloves impervious boots.

## SECTION IX – SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Protect from moisture (contact with moisture will produce hazards. Store between 75-120° F.

*Information presented herein has been compiled from sources considered to be dependable and current, and is accurate and reliable to the best of our knowledge, but is not guaranteed to be so. It is the user's responsibility to determine for himself the suitability of this information for his safe use of this product, and to adopt such proper safety precautions as may be necessary to provide adequate worker and plant protection.*