

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - PRODUCT IDENTIFICATION AND USE

<b>PRODUCT IDENTIFIER</b> PAVEGARD SELF- ADHESIVE MEMBRANES		<b>PRODUCT IDENTIFICATION NUMBER (PIN)</b> NONE	
<b>PRODUCT USE</b> PAVEMENT REINFORCEMENT AND WATERPROOFING			
<b>MANUFACTURER'S NAME</b> HAL INDUSTRIES INC.		<b>SUPPLIER'S NAME</b> PAVEGARD PRODUCTS LTD.	
<b>STREET ADDRESS</b> 9681 - 187TH STREET		<b>STREET ADDRESS (Admin. Office)</b> 9681 - 187 <sup>th</sup> STREET	
<b>CITY</b> SURREY	<b>PROVINCE</b> B.C	<b>CITY</b> SURREY	<b>PROVINCE</b> B.C
<b>POSTAL CODE</b> V4N - 3N3	<b>EMERGENCY TELEPHONE NO.</b> 604 - 888 - 0777 1- 800 663 - 0076	<b>POSTAL CODE</b> V4N 3N3	<b>EMERGENCY TELEPHONE NO.</b> 1- 800 663-0076

## SECTION 2 - HAZARDOUS AND OTHER INGREDIENTS

INGREDIENTS	CAS NUMBER	LD50 OF INGREDIENT (SPECIFY SPECIES AND ROUTE)	LC50 OF INGREDIENT (SPECIFIC SPECIES)
ASPHALT	8052 - 42 -4	ORAL: LD50> 5000 MG/ KG (RAT) DERMAL: LD50> 2000 MG/KG (RABBIT)	N/A, ACGIH RECOMMENDS FOR ASPHALT FUMES: 5 MG/ M <sup>3</sup> HYDROGEN SULPHIDE, 10 PPM (14 MG/ M <sup>3</sup> )
REFINED HEAVY OIL	64741 -96 -4		ACGIH TLV & OSHA OBSERVE 5 MG/ M <sup>3</sup> ( CUBIC METER OF AIR ) FOR MINERAL OILS
STYRENE - BUTADIENE - STYRENE BLOCK COPOLYMER	9003 - 55-8	This polymer does not present an intrinsic health hazard when processed according to correct working procedures. The limits on the residual monomers are:	RESIDUAL MONOMERS STYRENE TWA : 50 ppm = 215 mg/ M <sup>3</sup> STEL : 100 ppm = 425 mg/ M <sup>3</sup>
STYRENE - ISOPRENE - STYRENE BLOCK COPOLYMER	25038 - 32 -8	This polymer does not present an intrinsic health hazard when processed according to correct working procedures. The limits on the residual monomers are:	RESIDUAL MONOMERS STYRENE SAME AS ABOVE  ISOPRENE NO LIMIT AVAILABLE NOT CLASSIFIED AS A HUMAN CARCINOGEN
SPUNBOND POLYESTER NONWOVEN	NOT REGULATED	N/A	N/A
INERT FILLER	NOT REGULATED	N/A	N/A

### SECTION 3 - PHYSICAL DATA

<b>PHYSICAL STATE</b> SOLID (ASPHALT COATED, SURFACED SHEETS)	<b>ODOUR AND APPEARANCE</b> SLIGHT PETROLEUM ODOUR SHEET FORMS, COLOURED MINERAL GRANULES/ WHITE TALC OR SAND COVERED. BLACKISH (ASPHALTIC COLOURS ALSO).	<b>ODOUR THRESHOLD (PPM)</b> NOT AVAIL		
<b>VAPOUR PRESSURE:</b> N /A FOR ASPHALT:    <1 KPA AT 38 DEG C	<b>VAPOUR DENSITY</b> NOT APPLICABLE	<b>EVAPORATION RATE:</b> NOT AVAIL	<b>SOFTENING PT. COATING</b> 85 - 105 DEG C	<b>FREEZING POINT (DEG C)</b> <-15
<b>PH</b> N /A	<b>SPECIFIC GRAVITY</b> 1.8 - 2.5	<b>COEFF. WATER/OIL DIST.</b> INSOLUBLE IN WATER	NOT VOLATILE	

### SECTION 4 - FIRE AND EXPLOSION DATA

<b>FLAMMABILITY?</b> YES ( <input checked="" type="checkbox"/> )    NO ( <input type="checkbox"/> )	<b>IF YES, UNDER WHICH CONDITION?</b>	COMBUSTIBLE IF EXPOSED TO HIGH HEAT AND OPEN FLAMES.
<b>MEANS OF EXTINCTION:</b> WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE FOR SMALL FIRES. <b>FIRE FIGHTING PROCEDURES -</b> USE WATER SPRAY TO COOL FIRE EXPOSED PRODUCT AND AS A PROTECTIVE SCREEN. DO NOT POINT SOLID WATER DIRECTLY INTO BURNING ASPHALT TO AVOID SPREADING. SELF-CONTAINED BREATHING APPARATUS IS ADVISED TO BE WORN TO PROTECT AGAINST POSSIBLE RELEASE OF HYDROGEN SULPHIDE AND SULPHUR DIOXIDE IF MATERIAL IS BURNING.		
<b>FLASH POINT (DEG C) AND METHOD</b> (ASTM D93) 255 - 265 DEG C	<b>UPPER FLAMMABLE LIMIT (% BY VOLUME)</b> NOT AVAIL.	<b>LOWER FLAMMABLE LIMIT (% BY VOLUME)</b> NOT AVAIL.
<b>ASPHALT'S BOILING POINT :</b> 400 DEG C	<b>HAZARDOUS COMBUSTION PRODUCTS</b> CARBON DIOXIDE, CARBON MONOXIDE, SO <sub>x</sub> , H <sub>2</sub> S AND OTHER ORGANIC VAPOURS	
<b>EXPLOSION DATA</b>	<b>SENSITIVITY TO IMPACT</b> NONE	<b>SENSITIVITY TO STATIC DISCHARGE</b> NONE

### SECTION 5 - REACTIVITY DATA

<b>CHEMICAL STABILITY</b> YES ( <input checked="" type="checkbox"/> )    NO ( <input type="checkbox"/> )	<b>IF NO, UNDER WHICH CONDITION?</b>	STABLE AT AMBIENT CONDITIONS.
<b>INCOMPATIBILITY WITH OTHER SUBSTANCES</b> YES ( <input checked="" type="checkbox"/> )    NO ( <input type="checkbox"/> ) <b>IF SO, WHICH ONES?</b> STRONG OXIDIZING AGENTS		
<b>REACTIVITY, AND UNDER WHAT CONDITIONS</b> EXCESSIVE HEAT APPROACHING FLASH POINT		
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b> STABLE UNDER NORMAL CONDITIONS. SEE HAZARDOUS COMBUSTION PRODUCTS FOR PRODUCTS OF THERMAL DECOMPOSITION.		

### SECTION 6 - TOXICOLOGICAL PROPERTIES

<b>ROUTE OF ENTRY</b> ( <input checked="" type="checkbox"/> ) SKIN CONTACT	( <input type="checkbox"/> ) SKIN ABSORPTION	( <input checked="" type="checkbox"/> ) EYE CONTACT	( <input checked="" type="checkbox"/> ) INHALATION	( <input type="checkbox"/> ) INGESTION
<b>EFFECT OF ACUTE EXPOSURE TO PRODUCT: SKIN / EYE CONTACT :</b> IRRITATION <b>INHALATION:</b> FUMES FROM HOT ASPHALT IN CASE OF FIRE MAY CAUSE NAUSEA, HEADACHE AND DIZZINESS.				
<b>EFFECT OF CHRONIC EXPOSURE TO PRODUCT</b> THE MANUFACTURED PRODUCT AS PRODUCED AND WHEN USED UNDER AMBIENT CONDITIONS POSES NO HEALTH HAZARD.				

<b>EXPOSURE LIMITS</b> NOT LISTED BY NIOSH	<b>IRRITANCY OF PRODUCT</b> NOT AVAIL.	<b>SENSITIZATION TO PRODUCT</b> NOT AVAIL.	<b>CARCINOGENICITY</b> NOT LISTED AS CARCINOGENS (IARC)
<b>TERATOGENICITY</b> NOT AVAIL.	<b>REPRODUCTIVE TOXICITY</b> NOT AVAIL.	<b>MUTAGENICITY</b> NOT AVAIL.	<b>SYNERGISTIC PRODUCTS</b> NOT AVAIL.

## SECTION 7 - PREVENTIVE MEASURES

### PERSONAL PROTECTIVE EQUIPMENT:

<b>GLOVES (SPECIFY) :</b> NOT NORMALLY PRACTICAL WASH HANDS AFTER CONTACT.	<b>RESPIRATOR (SPECIFY) :</b> NOT NEEDED UNDER AMBIENT CONDITIONS ORGANIC CANISTER IF HEATING PRODUCT.	<b>EYE (SPECIFY):</b> AVOID EYE CONTACT WITH PRODUCT OR WITH HANDS DURING PRODUCT APPLICATION.
<b>FOOTWEAR (SPECIFY) :</b> PROTECTIVE FOOTWEAR	<b>CLOTHING (SPECIFY) :</b> NORMAL WORK CLOTHING	<b>OTHER (SPECIFY) :</b>

**ENGINEERING CONTROLS (SPECIFY, E.G VENTILATION, ENCLOSED PROCESS):** IF PRODUCT IS BEING HEATED OR BURNING PROVIDE SUFFICIENT VENTILATION. (SEE SECTION 4)

**LEAK AND SPILL PROCEDURE:** NOT NORMALLY IN LIQUID STATE. N / A

**WASTE DISPOSAL:** SEND TO RECYCLER OR INCINERATOR ACCORDING TO FEDERAL, PROVINCIAL AND LOCAL REGULATIONS.

**HANDLING PROCEDURES AND EQUIPMENT:** EXERCISE THE USUAL SAFETY PRECAUTIONS WHEN HANDLING PRODUCTS WITH PETROLEUM DISTILLATE. KEEP AWAY FROM IGNITION SOURCES. WASH HANDS THOROUGHLY AFTER SKIN CONTACT.

**STORAGE REQUIREMENTS:** STORE IN WELL-VENTILATED AREAS AWAY FROM IGNITION SOURCES AND STRONG OXIDIZING MATERIALS.  
**SPECIAL SHIPPING INFORMATION:**

## SECTION 8 - FIRST AID MEASURES IN CASE OF FIRE CREATED FUMES

### SPECIFIC MEASURES

- EYE CONTACT:** FLUSH WITH LARGE AMOUNTS OF WATER WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.
- SKIN CONTACT:** WASH WITH SOAP AND WATER, OR USE BABY OIL OR WATERLESS HAND CLEANER. DO NOT USE SOLVENTS OR THINNERS TO CLEAN THE SKIN, GET MEDICAL ATTENTION IF IRRITATION PERSISTS.
- INGESTION:** NOT EXPECTED TO BE A ROUTE OF ENTRY. IF INGESTED GIVE LIQUIDS. DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL ATTENTION.
- INHALATION:** REMOVE VICTIM TO FRESH AIR. IF BREATHING IS DIFFICULT APPLY CARDIOPULMONARY RESUSCITATION AND GET IMMEDIATE MEDICAL ATTENTION.

## SECTION 9 - PREPARATION DATE OF MSDS

<b>PREPARED BY :</b>	" TECHNICAL GROUP" HAL INDUSTRIES INC. AND PAVEGARD PRODUCTS LTD.	<b>PHONE NUMBER</b> 604 - 888 - 0777 1-800-663-0076	<b>DATE</b> Aug, 2017
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