

HFRS-2

Material Safety Data Sheet



Manufacturer's Name: Martin Asphalt Company	Date: December, 2006
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NFPA HAZARD IDENTIFICATION	DEGREE OF HAZARD	HAZARD RATINGS
	HEALTH: 1 FIRE: 0 REACTIVITY: 0	0= LEAST 1= SLIGHT 2= MODERATE 3= HIGH 4= EXTREME

SECTION 1 - COMPONENT DATA	
PRODUCT NAME:	SS-1, MS-1, MS-2, LVOC-300, HFRS-2, AES-300 EMULSION
COMMON NAME	ASPHALT EMULSION, BITUMEN
CHEMICAL NAME	PETROLEUM HYDROCARBON

SECTION 2 - PHYSICAL DATA	
C.A.S. NUMBER:	8052-42-4
BOILING POINT (F):	212 ^o f
SPECIFIC GRAVITY (H2O=1):	1.01
MELTING POINT:	N.A. ^o f
VAPOR PRESSURE:	
PERCENT VOLATILE:	0
VAPOR DENSITY (AIR=1):	N/A
EVAPORATIVE RATE (EE=1):	N/A
SOLUBILITY IN WATER:	SOLUBLE
APPEARANCE AND ODOR:	BROWN LIQUID, FAINT PETROLEUM ODOR

SECTION 3 - FIRE & EXPLOSION DATA	
FLASH POINT (°F) & METHOD:	N/A
FLAMMABILITY LIMITS:	LOWER: N.A. UPPER: N.A.
AUTO IGNITION TEMPERATURE (F):	UNKNOWN
EXTINGUISHING MEDIA	USE DRY CHEMICAL, FOAM OR CARBON DIOXIDE.
SPECIAL FIRE FIGHTING PROCEDURES	WATER MAY BE INEFFECTIVE BUT CAN BE USED TO COOL CONTAINERS EXPOSED TO HEAT OR FLAME. CAUTION SHOULD BE EXERCISED WHEN USING WATER OR FOAM AS FROTHING MAY OCCUR, ESPECIALLY IF SPRAYED INTO CONTAINERS OF HOT, BURNING LIQUID.
UNUSUAL FIRE AND EXPLOSIVE CONDITIONS	DENSE SMOKE MAY BE GENERATED WHILE BURNING. CARBON MONOXIDE, CARBON DIOXIDE AND OTHER OXIDES MAY BE GENERATED AS PRODUCTS OF COMBUSTION.

*NA=NOT APPLICABLE **ND=NOT DETERMINED



SECTION 4 - REACTIVITY DATA	
STABILITY: STABLE	CONDITIONS TO AVOID: NONE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR	
INCOMPATIBILITY MATERIALS TO AVOID:	DO NOT ALLOW HOT MOLTEN PRODUCT TO CONTACT WATER OR LIQUIDS AS THIS CAN CAUSE VIOLENT ERUPTIONS. MAY REACT WITH STRONG OXIDIZING AGENTS.
HAZARDOUS DECOMPOSITION PRODUCTS:	CO, CO ₂ , OXIDES OF SULFUR AND VARIOUS HYDROCARBONS.

SECTION 5 - HEALTH HAZARD DATA	
SKIN CONTACT:	ACUTE: PROLONGED OR REPEATED CONTACT WITH COLD MATERIAL MAY CAUSE DERMATITIS. CONTACT WITH HOT MATERIAL WILL CAUSE THERMAL BURNS. EXPOSURE TO ASPHALT FUMES INCREASES SENSITIVITY TO SUNBURN. CHRONIC: MOUSE SKIN PAINTING STUDIES GIVE EVIDENCE OF SKIN CANCER.
EYE CONTACT:	ACUTE: FUMES FROM HEATED MATERIAL WILL CAUSE IRRITATION. CHRONIC: NONE KNOWN.
INHALATION:	ACUTE: UPPER RESPIRATORY TRACT (NOSE AND THROAT) IRRITATION. MAY CAUSE NAUSEA OR DIZZINESS. CHRONIC: THERE ARE NO STUDIES TO INDICATE THAT ASPHALT CAUSES CANCER OR RESPIRATORY DAMAGE IN MAN. THIS PETROLEUM BASED ASPHALT PRODUCT CONTAINS A SMALL AMOUNT OF POLYAROMATIC HYDROCARBONS WHICH HAVE BEEN SHOWN TO CAUSE CANCER AND RESPIRATORY DAMAGE IN LABORATORY ANIMALS.
HAZARDOUS INGREDIENT: ASPHALT FUME	EXPOSURE LIMITS
OSHA PEL (mg/M ³)	NONE ESTABLISHED
ACGIH TLV (mg/M ³)	5 mg/M ³
OTHER RECOMMENDED SOURCE	5mg/M ³ (NIOSH)
HAZARDOUS INGREDIENT: ASPHALT	CARCINOGENICITY
NTP LISTED	NO
IARC LISTED	YES
OSHA REGULATED	NO

SECTION 6 - EMERGENCY AND FIRST AID PROCEDURES	
EYE CONTACT	IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER AND SEEK MEDICAL ATTENTION. IF MATERIAL IS HOT, TREAT FOR THERMAL BURNS AND TAKE VICTIM TO HOSPITAL IMMEDIATELY.
SKIN CONTACT	IF MATERIAL IS HOT, SUBMERGE INJURED AREA IN COLD WATER. IF VICTIM IS SEVERELY BURNED, REMOVE TO A HOSPITAL IMMEDIATELY. IF COOL ASPHALT CONTACTS SKIN, WASH THE AREA WITH HOT SOAPY WATER. USE OF A WATERLESS HAND CLEANER WILL HELP TO REMOVE THE ASPHALT.
INHALATION	REMOVE INDIVIDUAL TO FRESH AIR. IF IRRITATION PERSISTS, ADMINISTER OXYGEN AND SEEK MEDICAL ATTENTION.
INGESTION	DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.

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SECTION 7 - PERSONAL HEALTH PROTECTION INFORMATION	
EYE PROTECTION	EYE PROTECTION IS NOT REQUIRED UNDER CONDITIONS OF NORMAL USE. IF MATERIAL IS HANDLED SUCH THAT IT COULD BE SPLASHED INTO EYES, WEAR PLASTIC FACE SHIELD OR SPLASH-PROOF SAFETY GOGGLES.
SKIN PROTECTION	LONG SLEEVED SHIRT AND LONG PANTS (BOOTS, GLOVES, APRONS, ETC.) OVER PARTS OF THE BODY SUBJECT TO EXPOSURE. IF HANDLING HOT MATERIAL, USE INSULATED PROTECTIVE CLOTHING (BOOTS, GLOVES, APRONS, ETC.).
RESPIRATORY PROTECTION	RESPIRATORY PROTECTION IS NOT REQUIRED UNDER CONDITIONS OF NORMAL USE. IF VAPOR OR MIST IS GENERATED WHEN THE MATERIAL IS HEATED OR HANDLED OR FUMES EXCEED 5 mg3/M USE AN ORGANIC VAPOR RESPIRATOR WITH A DUST AND MIST FILTER. ALL RESPIRATORS MUST BE NIOSH CERTIFIED. DO NOT USE COMPRESSED OXYGEN IN HYDROCARBON ATMOSPHERES.
VENTILATION	IF VAPOR OR MIST IS GENERATED WHEN THE MATERIAL IS HEATED OR HANDLED, ADEQUATE VENTILATION IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE MUST BE PROVIDED TO MAINTAIN CONCENTRATIONS BELOW THE SPECIFIED EXPOSURE OR FLAMMABLE LIMITS.
OTHER	CONSUMPTION OF FOOD AND BEVERAGES SHOULD BE AVOIDED IN WORK AREAS WHERE HYDROCARBONS ARE PRESENT. ALWAYS WASH HANDS AND FACE WITH SOAP AND WATER BEFORE EATING, DRINKING, OR SMOKING.

SECTION 8 - SPILL, LEAK & DISPOSAL PROCEDURES	
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	CONSULT HEALTH HAZARD DATA IN SECTION 5, PERSONAL HEALTH PROTECTION INFORMATION IN SECTION 7, FIRE & EXPLOSION DATA IN SECTION 3, AND REACTIVITY DATA IN SECTION 4. NOTIFY APPROPRIATE AUTHORITIES OF SPILL. CONTAIN SPILL IMMEDIATELY. DO NOT ALLOW SPILL TO ENTER SEWERS OR WATERCOURSES. REMOVE ALL SOURCES OF IGNITION. ABSORB WITH APPROPRIATE INERT MATERIAL SUCH AS SAND, CLAY, ETC. LARGE SPILLS MAY BE PICKED UP USING VACUUM PUMPS, SHOVELS, BUCKETS OR OTHER MEANS AND PLACED IN DRUMS OR OTHER SUITABLE CONTAINERS.
WASTE DISPOSAL METHOD	ALL DISPOSALS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS. THE MATERIAL, IF SPILLED OR DISCARDED, MAY BE A REGULATED WASTE. REFER TO STATE AND LOCAL REGULATIONS. CAUTION! IF REGULATED SOLVENTS ARE USED TO CLEAN UP SPILLED MATERIAL, THE RESULTING WASTE MIXTURE MAY BE REGULATED. DEPARTMENT OF TRANSPORTATION (DOT) REGULATIONS MAY APPLY FOR TRANSPORTING THIS MATERIAL WHEN SPILLED. WASTE MATERIAL MAY BE LANDFILLED OR INCINERATED AT AN APPROVED FACILITY. MATERIALS SHOULD BE RECYCLED IF POSSIBLE.

SECTION 9 - SPECIAL PRECAUTIONS/ADDITIONAL INFORMATION	
HANDLING AND STORAGE REQUIREMENTS	DO NOT TRANSFER TO UNMARKED CONTAINERS. STORE IN CLOSED CONTAINERS AWAY FROM HEAT, SPARKS, OPEN FLAME, OR OXIDIZING MATERIALS. THIS PRODUCT IS NOT CLASSIFIED AS HAZARDOUS UNDER DOT REGULATIONS. FIRE EXTINGUISHERS SHOULD BE KEPT READILY AVAILABLE. SEE NFPA 30 AND OSHA 1910.106 FLAMMABLE AND COMBUSTIBLE LIQUIDS.
ADDITIONAL INFORMATION	NONE.

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