**HMIS HAZARD RATING** 

#### 1 **HEALTH** MATERIAL SAFETY DATA SHEET FIRE 0 RAHA SADR INDUSTRIAL AND TRADING OF ASIA UNIT 303, NAVAB COMPLEX, NAVAB SAFAVI ST., ESFAHAN-IRAN TEL: (+98) (31)32355207 REACTIVITY 0 FAX: (+98) (31)32355214 I. PRODUCT INFORMATION C.A.S. NUMBER TRADE NAME **Mixture** SS-1, SS-1H ASPHALT EMULSION PRODUCT CODE NUMBER **SYNONYMS** 298-307 Tack Oil, Fog Seal, Slurry Oil II. PHYSICAL DATA BOILING POINT @ 760 MM Hg % VOLATILES BY VOLUME SOLUBILITY IN H20 BY WEIGHT % 212 F 30-35% **Highly Miscible** SPECIFIC GRAVIT Y MELTING POINT EVAPORATION RATE (BUTYL ACETATE = 1) $1.0 \pm 0.2 @ 60 F$ **Not Applicable** Slower VAPOR DENSITY (AIR = 1) VAPOR PRESSURE APPEARANCE AND ODOR >1.0 **Not Determined Brown to Black Material** III. HAZARDOUS COMPONENTS C.A.S. NUMBER HAZARD DATA MATERIAL OR COMPONENT % TLV/TWA - 5mg/m3 for asphalt fumes 8052-42-4 [1] Asphalt 60-67 TLV/STEL - 10 mg/m3 for asphalt fumes 7732-18-5 [2] Water 33-40 Not applicable 0-4 Not applicable [3] Proprietary Emulsifier

IV. HEALTH HAZARD INFORMATION						
EXPOS URE LIMITS	5 mg/m³ for oil mist	5 mg/m³ for oil mist	Not Established	odor threshold limit Not Applicable		
	ROUTES OF EXPOSUR	E AND EFFECTS AS RE	QUIRED BY 29CFR1910	).1200		
INHALATION	Vapors which are released during the curing process are not known to contain hazardous materials. However, effects from raw materials include irritation to the eye, nose, and respiratory tracts of test animals. Health effects are not be expected if proper personal safety and hygiene is observed.					
INGESTION	High viscosity oils, i.e. asphalt, have been shown to be less toxic when ingested than lower viscosity, higher volatility oils. Product contains alkaline material (0.5%) and could cause burns in the mouth, esophagus, and stomach.					
SKIN ABSORPTION	Skin absorption could occur through normal skin contact and/or through wounds exposed to asphalt products. Product contains less than 0.5% alkaline material. Effects could include irritation and possible tissue damage or dermatitis. Health effects are not be expected if proper personal safety and hygiene is observed.					
SKIN CONTACT	Product contains less than 0.5% alkaline material. Direct contact may cause irritation and/or itching. Pre-existing skin disorders may be aggravated by exposure to this product. Severe effects could include tissue burns, irritation and dermatitis.					
EYE CONTACT	Documentation indicates that contact lenses should not be worn when exposed to this product. This product contains less than 0.5% alkaline material and can cause inflammation, irritation, and possible corneal burns.					
ACUTE OVEREXPOSURE Skin effects may include irritation and itching. Product contains less that 0.5% alkaline material and may cause tissue burns or dermatitis. Any pre-existing skin conditions may be aggravated by exposure to this product.						
CHRONIC OVEREXPOSURE Chronic health effects are not expected if proper personal safety and hygiene is observed Pre-existing skin disorders may be aggravated by repeated or prolonged exposure to this product.						
	V. EMERO	GENCY AND FIRST AID	PROCEDURES			
INHALATION	Vapors which are released during the curing process are not known to contain hazardous materials. However, if breathing is difficult, move person to fresh air and seek prompt medical attention.					
INGESTION	DO NOT induce vomiting. In general, emesis induction is unnecessary for high viscosity, low volatility oils such as asphalt and grease. Avoid all digestible oils, fats, and alcohol which may increase intestinal absorption. Seek medical attention.					
SKIN CONTACT	Flush area with water to cool. Wash affected area with waterless hand cleaner, followed by water and a mild detergent. DO NOT use solvents! For relief from irritation, apply hand lotion. If irritation persists, seek medical attention.					
EYE CONTACT	Flush eyes with water for 15 minutes while holding eyelids open. If subject is wearing contact lenses, immediately seek an ophthalmologist for treatment.					
		00 / 00 /// 10	DUALT EMILI SIONI MSDS Page			

	VI. SPE	ECIAL PROTECTION INFORM	MATION			
	Care must be taken to for oil mist is not excee should not require the Application must be m	PERSONAL PROTECTIVE EQUIPMENT				
RESPIRATORY PROTECTION	If needed, use an apport organic vapor caniste supplied air respirate	DUST/ORGANIC VAPOR RESPIRATOR				
EYE PROTECTION	Goggles and full-face this material.	GOGGLES FULL-FACE SHIELD				
SKIN PROTECTION	Flannel-lined Neopre	CHEMICAL RESISTANT GLOVES				
OTHER PPE	Rubber or leather fo saturated with this p	BOOTS				
VII. FIRE AND EXPLOSION DATA						
FLASH POINT Not Applicable		AUTOIGNITION TEMPERATURE  Not Applicable		R FLAMMABLE LIMIT KNOWN		
EXTING UISHING ME DIA  This product contains water and will not burn until all moisture has been removed.  If fire should occur, extinguish with foam, carbon dioxide or dry chemical extinguishers.						
SPECIAL FIRE FIGHTING PROCEDURES  Fire fighters should wear full protective equipment and self-contained breathing apparatus.						
UNUSUAL FIRE AND EXPLOSION HAZ AR DS  Water sprayed on burning product may cause frothing, steam, and eruptions.						
VIII. REACTIVITY DATA						
CONDITIONS CONT RIBUTING TO INSTABILITY  Since this is a water-based emulsion, settling will occur. The settling rate is dependent on the dilution and storage temperature. NOTE: Care should be taken to prevent this material from freezing.						
This material is incompatible with acids. DO NOT heatabove 212 F. All additives should be evaluated before use in the field.						
HAZARDOUS DECOMPOSITION PRODUCTS  Irritating or toxic vapors may be released when this material is burned.						
CONDITIONS CONT RIBUTING TO HAZARDOUS POLYMERIZATION  None known.						

### IX. SPILL AND LEAK PROCEDURES SPILL CO NTROL PROCEDURE If possible, stop source of leak. Dike and contain to eliminate environmental contamination. For small spills, squeegee into thin layer and cover with dirt or aggregate. If material enters a waterway, notify police, local EPA and the National Response Center (1-800-424-8802) **NEUTRALIZING CHEMICALS** DO NOT use water. This material is highly miscible and water will increase the volume of the spill. If appropriate, pump material into holding vessel and bind with sand or lime dust. WASTE DISPOSAL If disposal is necessary, contact your state environmental agency for guidance with disposal methods and waste receiving locations in your area. X. SPECIAL PRECAUTIONS 1. This product is considered an oil under EPA-CWA Section 311. Spills into water **ENVIRONMENTAL** sources must be reported to 1-800-424-8802. 2. If this product becomes a waste material, refer to 40 CFR 261.21 (RCRA) for latest waste disposal regulations and waste stream number. 3. This product is listed in the EPA/TSCA inventory (40 CFR 700 to end). 1. "KEEP FROM FREEZING" labels are recommended. **LABELING** 2. This material is not regulated by the Department of Transportation. XII. ENVIRONMENTAL INFORMATION 1. THIS PRODUCT CONTAINS THE FOLLOWING EXTREM ELYHAZARDOUS SUBSTANCE(S) 4. THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS (SECTION 302 AND 304): COMPONENT TPQ(LBS) RQ(BLS) (SECTION 313): COMPONENT CAS# **WEIGHT%** N/A N/A 2. THIS PRODUCT CONTAINS THE FOLLOWING CERCLA HAZARDOUS SUBSTANCE(S) COMPONENT RQ(LBS) (SECTION302 AND 304): WEIGHT % CARCINOGENITY: NTP IARC MONOGRAPHS OSHA 3. THIS PRODUCT HAS THE FOLLOWING HAZARDS (SECTION 311 AND 312): NO NO NO YES NO IMMEDIATE DELAYED Χ FIRE X PRESSURE REACTIVITY The information provided in this material safety data sheet has been obtained and compiled from sources believed to be reliable. This information relates to the specific material designated and may not be valid for such material used in combination with any other material or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or quarantee is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. Vance Brothers, Inc. does not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent. DATE July 02, 2015 RAHA SADR INDUSTRIAL AND TRADING OF ASIA

SS-1, SS-1H ASPHALT EMULSION MSDS, Page 4 of 4