

# Material Safety Data Sheet (MSDS) of Bitumen SS1

## HAZARD RATING

1	HEALTH
0	FIRE
30 0	REACTIVITY

I. PRODUCT INFORMATION				
TRADE NAME SS-1, SS-1H ASPHALT EMULSION			C.A.S. NUMBER Mixture	
SYNONYMS Tack Oil, Fog Seal, Slurry Oil			PRODUCT CODE NUMBER 298-307	
II. PHYSICAL DATA				
BOILING POINT @ 760 MM Hg 212 F		% VOLATILES BY VOLUME 30-35%		SOLUBILITY IN H2O BY WEIGHT % Highly Miscible
SPECIFIC GRAVITY 1.0 ± 0.2 @ 60 F		MELTING POINT Not Applicable		EVAPORATION RATE (BUTYL ACETATE = 1) Slower
VAPOR DENSITY (AIR = 1) >1.0		VAPOR PRESSURE Not Determined		APPEARANCE AND ODOR Brown to Black Material
III. HAZARDOUS COMPONENTS				
C.A.S. NUMBER	MATERIAL OR COMPONENT	%	HAZARD DATA	
8052-42-4	[1] Asphalt	60-67	TLV/TWA - 5mg/m <sup>3</sup> for asphalt fumes TLV/STEL - 10 mg/m <sup>3</sup> for asphalt fumes	
7732-18-5	[2] Water	33-40	Not applicable	
	[3] Proprietary Emulsifier	0-4	Not applicable	
IV. HEALTH HAZARD INFORMATION				
EXPOSURE LIMITS	TLV/TWA 5 mg/m <sup>3</sup> for oil mist	TLV/STEL 5 mg/m <sup>3</sup> for oil mist	TLV/PEL Not Established	ODOR THRESHOLD LIMIT Not Applicable
ROUTES OF EXPOSURE AND EFFECTS AS REQUIRED 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 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 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 than 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. EMERGENCY 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.

#### VI. SPECIAL PROTECTION INFORMATION

VENTILATION	Care must be taken to assure that the TLV/TWA of 5mg/m <sup>3</sup> for oil mist is not exceeded. Normal exterior application should not require the need for mechanical ventilation. Application must be made downwind from operator.	PERSONAL PROTECTIVE EQUIPMENT
RESPIRATORY PROTECTION	If needed, use an approved OSHA/NIOSH particulate and organic vapor canister respirator, or a positive atmosphere supplied air respirator as described in 29 CFR 1910.134.	DUST/ORGANIC VAPOR RESPIRATOR
EYE PROTECTION	Goggles and full-face shield are recommended when handling this material.	GOGGLES FULL-FACE SHIELD
SKIN PROTECTION	Flannel-lined Neoprene or Nitrile gloves are recommended.	CHEMICAL RESISTANT GLOVES
OTHER PPE	Rubber or leather footwear is recommended. All clothing saturated with this product should be discarded.	BOOTS

#### VII. FIRE AND EXPLOSION DATA

FLASH POINT Not Applicable	AUTOIGNITION TEMPERATURE Not Applicable	LOWER FLAMMABLE LIMIT Unknown
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#### EXTINGUISHING MEDIA

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 HAZARDS

Water sprayed on burning product may cause frothing, steam, and eruptions.

#### VIII. REACTIVITY DATA

##### CONDITIONS CONTRIBUTING 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.

##### INCOMPATIBILITY

This material is incompatible with acids. DO NOT heat above 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 CONTRIBUTING TO HAZARDOUS POLYMERIZATION

None known.

#### IX. SPILL AND LEAK PROCEDURES

##### SPILL CONTROL PROCEDURE

If possible, stopsource 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

**ENVIRONMENTAL** 1. This product is considered an oil under EPA-CWA Section 311. Spills into water 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).

##### LABELING

1. "KEEP FROM FREEZING" labels are recommended.

2. This material is not regulated by the Department of Transportation.

#### XII. ENVIRONMENTAL INFORMATION

1. THIS PRODUCT CONTAINS THE FOLLOWING EXTREMELY HAZARDOUS 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	N/A			N/A	N/A
2. THIS PRODUCT CONTAINS THE FOLLOWING CERCLA HAZARDOUS SUBSTANCE(S) (SECTION 302 AND 304):				COMPONENT		
RQ(LBS)	WEIGHT %					
N/A	N/A	N/A		CARCINOGENITY:	NTP	IARC MONOGRAPHS OSHA
3. THIS PRODUCT HAS THE FOLLOWING HAZARDS (SECTION 311 AND 312):						NO

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 guarantee 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.