

# MATERIAL SAFETY DATA SHEET

MSDS No. SSE-SS1H-092509



Manufacturer/Distributor  
S&S Emulsions  
P.O. Box 66  
1731 Old SR 7  
Rayland, Ohio 43943



## Supplier Emergency Contacts & Phone Number

Chemtrec: (800) 424-9300, 24 hour  
S&S Emulsions: (740) 859-2131, 8-5, M-F, EST

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**Issue Date:** 05/07/2007

**Product Name:** SS-1, SS-1H, SS-DC

**Chemical Name:** Emulsified complex petroleum hydrocarbon and water

### Synonyms

Anionic Asphalt Emulsion  
Asphalt Emulsion

## **2. Composition/Information on Ingredients**

| Ingredient Name            | CAS Number  | Percent of Total Weight |
|----------------------------|-------------|-------------------------|
| ANTISTRIP, Proprietary     | Mixture     | 0-2                     |
| No. 2 FUEL OIL             | 68334-30-5  | 0-5                     |
| PETROLEUM ASPHALT          | 8052-42-4   | 55-75                   |
| TALL OIL SOAP, Proprietary | TSCA Listed | 1-5                     |
| WATER                      | 7732-18-5   | 25-45                   |

Asphalt: Asphalt is a complex mixture of high molecular weight hydrocarbons produced from crude petroleum. Composition varies depending on the source of crude and the specifications of the final product.

ACGIH: The American Conference of Governmental Industrial Hygienists recommends an exposure limit of 0.5 mg/cu meter as benzene-extractable inhalable particulate (or equivalent method) to avoid irritation of the conjunctive mucus membranes. Historical information on exposure of asphalt workers used methods different than recommended by ACGIH, so comparisons to the recommended exposure limits are not known.

## **3. Hazards Identification**

### Eye Hazards

Contact with hot emulsified asphalt can cause thermal burns to the eyes. Prolonged exposure to vapors, fumes, or mists may cause eye irritation, redness, and tearing.

### Skin Hazards

Skin contact with hot emulsified asphalt can cause minor thermal burns. Prolonged exposure to vapors, fumes, or mists may cause irritation and redness.

### Ingestion Hazards

Ingestion is not likely. Ingestion may cause thermal burns. If ingestion of emulsified material occurs, keep victim's head below the hips to prevent asphalt from reaching the lungs. Take the victim to obtain medical assistance immediately.

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## 3. Hazards Identification-Continued

### Inhalation Hazards

Breathing vapors, fumes, or mists may cause irritation to nasal and respiratory tract and central nervous system effects. Symptoms may include labored breathing, sore throat, coughing, wheezing, dizziness, headache, and nausea.

## 4. First Aid Measures

### Eye

Gently flush immediately with cold water for 15 minutes. Do not attempt to remove solidified material from the eye, as this may further injury. Take the victim to obtain medical assistance immediately.

### Skin

Hot Emulsified Material-Cool the affected body parts immediately by submerging in cold water until the material has cooled. Do not attempt to remove solidified material from the burn area as this may further tissue damage. Take the victim to obtain medical assistance immediately.

Cold Emulsified Material-Remove emulsified asphalt by soaking dressing in mineral oil and place over affected area for 2-3 hours. If irritation occurs, call a physician.

Never try to remove the material with solvents.

### Ingestion

Ingestion is not likely. If large amounts are swallowed, do not induce vomiting and immediately call a physician.

### Inhalation

If irritation occurs from inhalation overexposure, immediately remove victim from source to fresh air and seek medical attention.

## 5. Fire Fighting Measures

**Flash Point:** N.A. °F

**Autoignition Point:** >400 °F

**Lower Explosive Limit:** N.A.

**Upper Explosive Limit:** N.A.

### Extinguishing Media

Foam, Caron Dioxide, Dry Chemical, and Water Spray may all be suitable in extinguishing fires involving this product. Avoid using water streams to prevent frothing. Use water spray to cool exposed surfaces.

## 6. Accidental Release Measures

Stop source of leak. Eliminate sources of ignition. Contain by diking or impounding. Absorbants can be used to contain spill. After containment, emulsified asphalt can be collected for disposal. Advise authorities if product has entered a sewer or water source. Assure conformity with local, state and federal governmental regulations for disposal.

## 7. Handling and Storage

### Handling and Storage Precautions

When opening cover and outlet cap on storage tanks, use face shield and gloves to avoid possible injury from pressurized asphalt. Hydrogen sulfide can be generated and accumulated in storage tanks and bulk transport compartments. Stay upwind and vent storage hatches before unloading. Keep heating units and flues in storage tanks covered with at least 12 inches of asphalt. Do no overheat.

Empty Container Warning: Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, K GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

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## 7. Handling and Storage-Continued

### Work/Hygienic Practices

Skin contact and the breathing of mists, fumes, or vapors should be reduced to a minimum to avoid any ill effects. Thoroughly wash exposed skin areas after work to avoid dermatitis. Consider the use of lanolin skin treatments before handling or working around asphalt mixtures.

## 8. Exposure Controls/Personal Protection

### Engineering Controls

Local or general exhaust required if in an enclosed area to remain below the TLV. If work place exposure limits are exceeded, a NIOSH/MSHA approved air supplied respirator is advised in the absence of proper environmental engineering controls.

### Eye/Face Protection

Safety goggles or chemical splash goggles if splashing is anticipated.

### Skin Protection

Oil impervious gloves, such as Neoprene, if frequent or prolonged contact is expected.

### Respiratory Protection

Respiratory protection is not normally required under normal conditions and adequate ventilation. If high vapors are expected, use respirator approved for organic vapors. Observe respirator protection factor criteria cited in ANSI Z88.2 (1980) and other OSHA requirements found in 29 CFR 1910.134. Use air-supplied respirators or self-contained breathing apparatus for firefighting and in confined spaces when asphalt vapor or Hydrogen Sulfide gas exceeds permissible limits.

### Other/General Protection

Wear body covering clothes to avoid prolonged or repeated exposure. Launder before reuse.

### Ingredient(s)-Exposure Limits

ANTISTRIP, Proprietary

OSHA PEL, Not established for this material.

NO. 2 FUEL OIL,

OSHA PEL, Not established for this material.

PETROLEUM ASPHALT

OSHA PEL, Not established for this material.

AOGIH TLV, 0.5mg/m<sup>3</sup> as benzene-extractable inhalable particulate (or equivalent method).

NIOSH REL, 5.0 mg/m<sup>3</sup> as a 15 minute ceiling limit measured as total particulates

TALL OIL SOAP, Proprietary

OSHA PEL, Not established for this material.

## 9. Physical and Chemical Properties

### Appearance

Light Brown Liquid

### Odor

Characteristic Asphalt Odor

**Chemical Type:** Mixture

**Physical State:** Liquid

**Boiling Point:** 212 °F

**Specific Gravity:** 0.96-1.05

**Molecular Weight:** 280

**Vapor Pressure:** <1mm Hg @ 77°F

**Vapor Density:** 1.0

**pH Factor:** 10

**Solubility:** Completely

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## 10. Stability and Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will not occur.

### Incompatible Materials

Strong Oxidizers

### Hazardous Decomposition Products

Fumes, smoke, carbon monoxide, hydrogen sulfide, sulfur dioxide, aldehydes, and hydrocarbons

## 11. Toxicological Information

**ASPHALT:** The International Agency for Research on Cancer has determined that there is sufficient evidence for the carcinogenicity of extracts of steam-refined bitumens, air-refined bitumens and pooled mixtures of steam and air-refined bitumens in experimental animals. However, this product does not use extracts in its formulation. Asphalt products, properly handled as outlined in the MSDS, are not expected to cause cancer in humans. Skin contact, breathing of mists, fumes, or vapors should be reduced to a minimum to avoid any ill effects. Chronic health effects would not be expected as long as good hygiene and proper safety precautions are practiced.

### **Health Hazard Characterization:**

Uncertainties exist in the hazard characterization of asphalt fumes by many factors including its chemical complexity, limitation of the information, the inclusion of coal tar in asphalts in past decades, other confounders and mixed results of human studies. **Concise International Chemical Assessment Documents** relating to asphalt and fumes can be obtained on the internet at <http://inchem.org/documents/cicads/cicads/cicad59.htm>. Despite conflicting reports, the following bullet points should be noted:

- Currently classified as A4 (not classifiable as a human carcinogen). Asphalt Coal Tar Free
- Breathing of mists, fumes, or vapors should be reduced to a minimum to avoid any ill effects.
- Asphalt and asphalt fumes contain trace levels of polynuclear aromatic hydrocarbons that are known carcinogens.
- Chronic health effects would not be expected as long as good hygiene and proper safety precautions are practiced and exposures are less than the TLVs/RELS.
- After using material or being around fumes, wash exposed areas thoroughly with soap and water. Showering immediately after work is a good personal hygiene practice.

**KEROSENE AND NO. 2 FUEL OIL:** Lifetime skin painting studies in animals with similar distillate fuels have produced weak carcinogenic activity following prolonged and repeated exposure. Repeated dermal application has produced severe irritation and systematic toxicity in subacute toxicity studies. Some components of distillate fuels, i.e., paraffins and olefins, have been shown to produce species specific, sex hormonal dependent kidney lesion in male rats from repeated oral or inhalation exposure. Jet Fuel and No. 1 fuel oil were found to be positive in a few mutagenicity tests while negative in the majority of others. The exact relationship between these results and human health is not known. Chronic human health effects would not be expected as long as good personal hygiene and proper safety precautions are practiced.

## 12. Ecological Information

Liquid asphalt emulsion product may cause fouling of water and/or may be toxic to aquatic animals. Once solidified, this product will no longer exhibit these characteristics.

## 13. Disposal Considerations

Waste or contaminated asphalt is normally disposed in a special waste or industrial landfill. Consider recycling into pavement mixtures whenever possible.

### RCRA Information

This material, if discarded as produced, is not a RCRA "listed" hazardous waste. Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. It is the responsibility of the generator to fully characterize for toxicity and other RCRA parameters prior to disposal (40 CFR 261). Along with properly characterizing all waste materials, consult state and local regulations regarding proper disposal of this material.

## 14. Transport Information

This product as produced and shipped is not considered a hazardous material by the U.S. Department of Transportation.

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## 15. Regulatory Information

### U.S. Regulatory Information

Toxic Substances Control Act: This product is listed on the US TSCA Chemical Inventory Section 8(b).

Clean Water Act: Petroleum hydrocarbons are considered hazardous if released into navigable waters.

OSHA Hazard Communication: See individual state requirements for Right-to-Know lists.

### SARA Hazard Classes

Acute Health Hazard

### NFPA



### HMIS

|                            |            |
|----------------------------|------------|
| <b>HEALTH</b>              | <b>1</b>   |
| <b>FIRE</b>                | <b>0</b>   |
| <b>REACTIVITY</b>          | <b>0</b>   |
| <b>PERSONAL PROTECTION</b> | <b>B,X</b> |

## 16. Other Information

### Precautionary Label

**WARNING-HOT EMULSIFIED ASPHALT**

May produce minor burns on contact

### Revision/Preparer Information

MSDS Preparer:

MSDS Preparer Phone Number:

### Reference Documentation

Information supplied by Heritage Research Group, Indianapolis, Indiana

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