



Material Safety Data Sheet

MSDS No. SSE-ACB-092509

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



<u>Supplier Emergency Contacts & Phone Number</u> Chemtrec: (800) 424-9300, 24 hour S&S Emulsions: (740) 859-2131, 8-5, M-F, EST	<u>Manufacturer Emergency Contacts & Phone Number</u> Chemtrec: (800) 424-9300, 24 hour S&S Emulsions: (740) 859-2131, 8-5, M-F, EST
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Trade Name: Asphalt Cut Back

Synonyms

MC-30, MC-70, MC-250, MC-3000

2. Composition / Information on Ingredients

Ingredients	CAS Number	Percent By Weight
Petroleum Asphalt Base	8052-42-4	70 – 95
Petroleum Solvent	68476-30-2	3 – 30
Hydrogen Sulfide	7783-06-4	0 – 0.2

3. Hazards Identification

Potential Health Effects and Symptoms of Exposure

Eyes	Severe irritation including redness, tearing and blurred vision.
Skin	Prolonged or repeated contact may cause irritation and / or defatting of the skin and / or dermatitis, including possible allergic dermatitis.
Swallowing	Swallowing these materials can cause irritation of the mouth, throat and stomach. Nausea, vomiting and diarrhea may result from ingestion. However, it is unlikely that people working with these materials would swallow them.
Inhalation	Breathing the fumes from these materials, particularly when they are heated and / or in an enclosed space may cause headache, nausea, feeling of dizziness of weakness and shortness of breath. Fumes from these materials can irritate the nose, throat and lungs. Prolonged exposure to high levels of fumes may result in loss of consciousness and in rare instances, death as a result of being unable to breath.
Cancer Information	The International Agency for Research on Cancer (IARC) has determined that there is sufficient evidence for the carcinogenicity of asphalt fumes (refined bitumens) in experimental animals, but not in humans. (See Section 11.0 Toxicological Information)
Developmental and Reproductive Effects	Currently no information is available on the potential effects that exposure to these products may have on a person's ability to conceive a child or on the embryonic and fetal development of a child.

Material Safety Data Sheet

MSDS No. SSE-ACB-092509

4. First Aid Measures	
Eyes	If this material gets into the eyes, flush the eyes with large amounts of water for at least fifteen (15) minutes. Be certain to lift the upper and lower lids to ensure that all of the material is flushed out of the eyes. Obtain immediate medical attention.
Skin	Immediately remove any contaminated clothing and wash the affected areas of skin with soap and water. Launder contaminated items of clothing before wearing. If skin irritation or redness persists or develops after exposure, contact a physician.
Inhalation	Move the individual to fresh air away from the fumes. If he / she is having difficulty breathing or is not fully conscious, administer oxygen and obtain immediate medical attention.
Swallowing	Do not induce vomiting. Vomiting can cause the material to be aspirated into the lungs, causing chemical pneumonitis. This can be fatal. Keep the person warm and quiet. Obtain immediate medical attention.
Note: Seek immediate medical attention for over – exposure.	
5. Fire Fighting Measures	
Flash Point	220°F to 230°F (Cleveland Tag Open Cup Method) 200°F to 210°F (Pensky Martens Closed Cup)
Explosive Limit	Unknown
Flammable Limit	Unknown
Extinguishing Media	Carbon Dioxide Foam, Dry Chemical and Water Fog
Fire Fighting Instructions	A self-contained breathing apparatus with a full facepiece operating in a positive pressure mode may be required. Avoid using a water stream to prevent frothing. Water or foam may cause frothing which can be violent and may present a life-threatening situation. Frothing is most likely to occur when streams of water or foam are sprayed into hot or burning containers.
Fire and Explosion Hazards	Never use a welding or cutting torch on or near drums of this material (even empty drums) because the material can ignite explosively.
Hazardous Products of Combustion	Carbon Monoxide and other organic compounds may be formed upon combustion.
6. Accidental Release Measures	
Small Spill	Absorb liquid on paper, vermiculite or other absorbent material. Use soap and water for final cleanup. Avoid inhaling the vapors or getting the spilled liquid on the skin. People performing cleanup should wear appropriate protective clothing.
Large Spill	Eliminate all flames and other potential sources of ignition. Contain spilled material with a dike and pump any salvageable material into clean containers for reuse. Mix any remaining liquid with sand, vermiculite or other absorbent material and shovel the mixture into containers. Wear protective clothing during the cleanup.

Material Safety Data Sheet

MSDS No. SSE-ACB-092509

6. Accidental Release Measures - continued		
Waste Disposal Method	If not contaminated with other materials, spilled product may be mixed with aggregate and used for patching or other maintenance applications. If the spilled material cannot be reused, place it into closed containers and dispose in an approved landfill according to local, state and federal regulations.	
7. Handling and Storage		
This product is pumpable at temperatures of 170°F and above. For long term storage, product may be stored at ambient temperatures to minimize the volatilization of petroleum solvent. For the production of UPM Asphalt Cold Mix and for short term storage, hold the temperature near 200°F. Avoid cycling the temperature through the boiling point of water (212°F) to avoid problems with condensate. Empty containers may contain enough residue to emit vapors or to be combustible. Dispose of used containers according to local, state and federal requirements.		
8. Exposure Controls / Personal Protection		
Respiratory Protection	Respiratory protection should not be required when handling these products in the open air. However, if these materials are being handled in a confined area, wear a respirator with a NIOSH approved organic respiratory cartridge or NIOSH approved air supplied breathing equipment to prevent inhaling fumes. A respirator is only required when working with this material in a confined or inadequately ventilated area. Provide sufficient ventilation (mechanical ventilation such as a general or local exhaust system) to prevent vapors from accumulating and to maintain exposure levels below TLV(s).	
Eye and Skin Protection	Wear a face shield or safety glasses, impervious clothing or apron, gloves and boots.	
Hygiene Practices	Wash hands thoroughly after working with this material. Remove and launder contaminated clothing before wearing. Eye baths and emergency showers should be available for people working with these materials.	
Exposure Guidelines	The following occupational exposure guidelines are for the major ingredients in this material. The Permissible Exposure Limit (PEL) and the Threshold Limit Value (TLV) are expressed in parts per million (PPM) of the ingredient in the workplace air.	
<u>Ingredient</u>	<u>PEL</u>	<u>TLV</u>
**Petroleum Asphalt Base **	5ppm	5ppm
Petroleum Solvent	N/E	N/E
Hydrogen Sulfide	10ppm	10ppm
** = as fumes		N/E = Not Established

Material Safety Data Sheet

MSDS No. SSE-ACB-092509

9. Physical and Chemical Properties	
Boiling Point	400°F ±
Vapor Density	Heavier than air
Percent Volatile	0% - 10% by volume
Odor, Appearance and Color	Black viscous, hot liquid with asphalt petroleum odor
Specific Gravity	Greater than water
Evaporation Rate	Slower than ether
Solubility in Water	Negligible
10. Stability and Reactivity	
Hazardous Polymerization	This material is not known to undergo hazardous polymerization.
Hazardous Decomposition	Carbon monoxide and other potentially hazardous toxic vapors and organic compounds may be formed when this material burns.
Chemical Stability	Stable
Incompatibility	Avoid contact with strong acids, oxidizing agents and petroleum solvents and soaps to preserve the quality of this material.
11. Toxicological Information	
<p>The relevant toxicological information for the major components of HPM/UPM Asphalt Cut Back are summarized below.</p> <p>Petroleum Asphalt: The International Agency for Research on Cancer (IARC) has determined that there is sufficient evidence to classify extracts of bitumens (the primary components of asphalt) as carcinogenic in experimental animals. Studies on workers exposed to asphalt fumes have not produced conclusive evidence of an increased risk of cancer. Some epidemiologic studies have shown no increased risk of cancer among exposed workers, while other studies show a slightly increased risk of lung, other respiratory tract and gastrointestinal tract cancers. In those studies where an increased risk of cancer was reported, a number of the workers who were included in the studies also may have been exposed to coal tar products other than asphalt. Consequently, the increased risk may not be exclusively attributable to exposure to asphalt fumes.</p> <p>Dermal applications of undiluted (hot) asphalt experimental animals have reportedly produced tumors at the site of application. However, these findings should be interpreted with caution because the applications may have caused burns and irritation that could have been related to tumor production. Solvent dilutions of different types of asphalt have been evaluated in chronic skin painting studies. Condensates of asphalt fumes diluted in solvent have been evaluated in skin painting studies. The conditions under which these studies were conducted may not be representative of the conditions to which people working with these materials are likely to be exposed. However, exposure to asphalt can produce skin irritation in people who get these materials on their skin.</p> <p>Extracts of asphalt tested in a modified Ames Assay gave negative or slightly positive findings (mutagenicity index <1.5). Fume condensates derived from heating asphalt to high temperatures (>450°F) were moderately mutagenic (mutagenicity index 4-9). By comparison, fumes generated by heating coal tar pitch were >1,000 times more mutagenic in the Ames Assay than asphalt.</p> <p>Petroleum Solvent: IARC has determined that petroleum solvent contains components that may be carcinogenic. Prolonged and repeated applications of petroleum solvent to the skin of laboratory animals have been shown to produce skin tumors. Tumors were produced in association with marked irritation. IARC has classified combustion products of petroleum solvent as probable human carcinogens. Lifetime exposure to these combustion products has been shown to cause cancer in laboratory animals. However, no combustion products are expected to be generated from the intended use of HPM / UPM Asphalt Cut Back. Consequently, inhalation of petroleum solvent combustion products is not a relevant exposure for people working with HPM / UPM Asphalt Cut Back under normal conditions.</p>	

Material Safety Data Sheet

MSDS No. SSE-ACB-092509

11. Toxicological Information - continued

Hydrogen Sulfide: This compound may be present as a contaminant in either petroleum asphalt or petroleum solvent. Hydrogen sulfide gas (H₂S) is toxic by inhalation. Prolonged breathing of 50 – 100 PPM H₂S vapors can produce eye and respiratory tract irritation. Higher concentrations (250 – 600 PPM) for 15 – 30 minutes can produce headache, dizziness, nervousness, nausea, and pulmonary edema or bronchial pneumonia. Concentrations of 1,000 PPM or more will cause immediate unconsciousness and death through respiratory paralysis.

12. Ecological Information

Although there is no evidence to suggest that the components of HPM / UPM Asphalt Cut Back bioaccumulate in food chains, the heavier molecular weight hydrocarbon components of asphalt and petroleum solvent may be persistent under some environmental conditions. Release of these products into surface waters should be avoided.

13. Disposal Considerations

Dispose of contaminated or unused material in closed containers according to local, state and federal regulations.

14. Transport Information

DOT Description:

Proper Shipping Name	Elevated temperature liquid, flammable, n.o.s., (with flash point above 37.8°C, at or above its flash point)
Hazard Class	3
UN Number	UN3256
Packing Group	III

15. Regulatory Information

U.S. Federal Regulations

OSHA Hazard Communication Standard (29 CFR 1910.1200)

This product, when heated above its flash point, has been determined to be hazardous as defined in OSHA's Hazard Communication Standard.

EPA Toxic Substances Control Act, TSCA (40 CFR part 710)

All components of this product are in compliance with the inventory listing requirements of TSCA. The following component(s) are listed in the inventory: Hydrogen Sulfide

EPA SARA Title III (Superfund Amendments and Reauthorization Act)-Sections 302, 304, 311, 312 and 313

Section 302 – Extremely Hazardous Substances (40 CFR Part 355)

This product contains the following component(s) identified on Appendix A and B of the extremely hazardous substance list:

Component	Reportable Quantity (lbs)	Threshold Planning Quantity (lbs)
Hydrogen Sulfide	100	500

Material Safety Data Sheet

MSDS No. SSE-ACB-092509

15. Regulatory Information – continued

Section 304 – Emergency Release Notifications (40 CFR Part 355)

This product contains the following component(s) identified either as an extremely hazardous substance (see Section 302) or a CERCLA Hazardous Substance (40 CFR 302) which in the case of a spill or release may be subject to the reporting requirements under Section 304 of Title III: Hydrogen Sulfide

Section 311 and 312 – Material Safety Data Sheet (MSDS) Requirements (40 CFR Part 370)

The following EPA Hazard Categories apply to this product.

Immediate (Acute) Health Hazard

MSDS or a list of MSDS and their hazards (See EPA hazard categories above) may be required to be submitted to the State Emergency Response Commission (SERC), Local Emergency Planning Committee (LEPC) and the Local Fire Department per Section 311 requirements.

Per Section 312 requirements, a Tier II or Tier form may be required to be submitted annually to the SERC, LEPC and LFD if applicable threshold reporting quantities are exceeded. Current Federal Thresholds are:

10,000 pounds or more of an OSHA Hazardous Substance
500 pounds or the threshold planning quantity, whichever is less, of an extremely hazardous substance

Section 313 – Toxic Chemical Release Reporting (940 CFR 372)

This material does not contain ingredients subject to Section 313 of SARA Title III.

State Right-to-Know Laws	Components Subject to Reporting	CAS Number	% Weight
Connecticut	No component subject to reporting		
Florida	No component subject to reporting		
Illinois	No component subject to reporting		
Louisiana	No component subject to reporting		
Massachusetts	No component subject to reporting		
New Jersey	No component subject to reporting		
Pennsylvania	No component subject to reporting		
California Proposition 65	The required chemical analyses and risk assessments were performed on this product. Results indicate that are no significant risks (or observable effects), as defined by this statute, associated with this product under conditions of normal use.		

16. Other Information

NFPA Classification		HMIS Classification		Hazard Rating
Health	1	Health	1	0 – Least
Fire	1	Fire	1	1 – Slight
Reactivity	1	Reactivity	1	2 – Moderate
Other		Personal Protection	****	3 – High
				4 - Extreme

Material Safety Data Sheet

MSDS No. SSE-ACB-092509

16. Other Information - continued

**** Comments: See Section 8 of this MSDS for guidance in selection of personal protective equipment.

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