



MEIGS

Paving Asphalts & Emulsions

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MATERIAL SAFETY DATA SHEET

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC: 800-424-9300 Transport
800-441-3637 Medical

GENERAL MSDS ASSISTANCE

MEIGS: 800-362-1440 General
608-742-1805 FAX

Section 1: PRODUCT IDENTIFICATION

Product Name: Cutback Asphalt, Medium Cure, MC
Cutback Asphalt, Slow Cure, SC

Synonyms: MC-0 to MC-3000, MP-5, MP-7, MP-8, MAC-5, SC-3 to SC-15000

Chemical Name: Petroleum Asphalt and Hydrocarbon Mixture

Chemical Family: Petroleum Hydrocarbon

Creation Date: January 3, 2000

Revision Date: May 9, 2007

Section 2: COMPOSITION/COMPONENTS

<u>Components</u>	<u>CAS#</u>	<u>%</u>
Petroleum Asphalt	8052-42-4	55-96
Hydrogen Sulfide	7783-06-4	<1
Polynuclear Aromatic Hydrocarbons (PAHs)	N/A	trace
Petroleum Distillate	N/A	0-45

Composition varies depending on source of crude and specification of final product.

For Exposure Limits, see Section 8.

Section 3: HAZARD RATING/SUMMARY

NFPA Ratings (Scale 0-4):

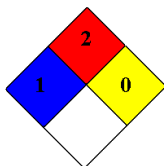
Hazard Rating:

- 0 – Least
- 1 – Slight
- 2 – Moderate
- 3 – High
- 4 – Extreme

Health = 1

Fire = 2

Reactivity = 0



Emergency Overview:

WARNING: Combustible liquid and vapor

Ensure adequate ventilation. Harmful if inhaled and may cause delayed lung injury or nervous system depression.

Hydrogen Sulfide (H₂S) gas may accumulate in the air space above asphalt during storage or transport. Hydrogen Sulfide is harmful or fatal if inhaled.

Heated asphalt can cause thermal burns. Eye protection, as well as protective clothing, should be worn when working with hot asphalt.

Prolonged or repeated contact with asphalt may cause skin irritation or dermatitis. Pre-existing skin, eye, and respiratory disorders may be aggravated by exposure to components of this product. May cause photo-irritation (light sensitivity) in some individuals.

Section 4: FIRST AID MEASURES

Inhalation: Fumes may cause headache, blurred vision, nasal and respiratory irritation, nausea, and drowsiness. Remove victim to uncontaminated area. Give artificial respiration if not breathing. Get medical attention.

Skin Contact:

Hot Asphalt Cement: Flush with cool water for at least 15 minutes or completely submerge affected area in ice water. Do not apply ice directly to affected area. Do not attempt to remove the asphalt cement. Removing the asphalt may further damage the tissue. Natural separation will occur in 48 – 72 hours. Get immediate medical attention.

Treatment for shock:

1. Keep victim lying down and quiet.
2. Keep victim covered with a blanket or something similar to keep body temperature at normal, 98°F.
3. Keep victim's head lower than feet to promote blood supply to head and chest.

Cold Asphalt Cement: Clean exposed skin with waterless hand cleaner and then wash with soap and water.

Ingestion: May cause vomiting, diarrhea, or pneumonitis. Since this is a low viscosity liquid, it is common for the victim to aspirate vomited material into the lungs. Use caution to prevent aspiration and to further prevent pneumonitis or suffocation. If large amount is swallowed, get medical attention.

Section 5: FIRE FIGHTING MEASURES

Fire and Explosion Hazards: Cutback Asphalt is a combustible liquid. Hydrogen Sulfide (H₂S) gas, which can build up in the air space above the asphalt, can increase the risk of fire. H₂S can react with the iron in an asphalt storage tank to form pyrophoric iron compounds. When exposed to air, these iron compounds are capable of igniting spontaneously.

Extinguishing Media: Use agents approved for class B hazards such as carbon dioxide, regular dry chemical, regular foam, or steam. If leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop the leak.

CAUTION: Contact of hot asphalt with water leads to violent expansion as the water turns to steam. Evacuate area and fight fire from a safe distance.

Fire Fighting: Avoid inhalation of fumes. Stay upwind and keep out of low areas. Firefighters should wear full-face mask and full protective equipment including a positive pressure self-contained breathing apparatus.

Hazardous Combustion Products:
Combustion may produce CO_x, NO_x, SO_x, irritating vapors and hydrogen sulfide.

Flash Point: Medium Cure Cutback Asphalt (MC): 150-400°F
Slow Cure Cutback Asphalt (SC): 225-450°F

Flammable Limits (% Volume by Air): LEL= 1, UEL=5

Section 6: ACCIDENTAL RELEASE MEASURES

Keep ignition sources out of the area. Take immediate steps to stop and contain the release. Containment may be safely accomplished with a soil dike. Keep out of waterways and sewers. For small spills, absorb the asphalt with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Notify local authorities and the National Response Center (800)424-8802 if required.

Section 7: HANDLING AND STORAGE

Storage: Store in a well-ventilated area, in an appropriately labeled container. Outside storage is recommended. Avoid storing with strong oxidizers. Not compatible with strong acids or caustics. Heating coils in storage or transportation vessels must be covered with at least 8" of asphalt.

CAUTION: Empty containers may contain toxic, flammable/combustible or explosive residue or vapors. Do not reuse without adequate precautions.

CAUTION: Vapors containing hydrogen sulfide may accumulate in the air space above asphalt in storage or transportation vessels. Use appropriate respiratory protection to prevent exposure. Do not enter enclosed or confined space without a self-contained breathing apparatus and other protective equipment.

CAUTION: Contact of hot asphalt with water leads to violent expansion as the water turns to steam. Storage or transportation vessels must be dry before filling with hot asphalt.

Handling: Keep away from all ignition sources. Do not smoke in areas where asphalt is being used or stored. Do not eat or drink in areas where asphalt is being used or stored. Use good personal hygiene practices when working with asphalt. When opening covers and outlet caps on storage tanks, use faceshield and gloves to avoid possible injury from pressurized asphalt.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

Asphalt (Petroleum) fumes:

0.5 mg/m³ ACGIH 8-hour TWA (inhalable fraction)

5 mg/m³ 15-minute REL

Hydrogen Sulfide:

20ppm OSHA ceiling

10ppm ACGIH 8-hour TWA

15ppm ACGIH 15-minute STEL

Petroleum Distillates:

400 ppm PEL (Permissible Exposure Limit)

Respiratory Protection: Protection not required under normal conditions and adequate ventilation. Do not breathe mist or vapor. A positive pressure self contained breathing apparatus should be used whenever entering a confined space, for firefighting, or when the worker's face is to be within three feet of an open hatch.

Skin Protection: Insulated gloves should be worn when handling hot material. Natural fiber long-sleeved shirts and pants without cuffs should be worn. Synthetic fibers can melt and fuse to the skin when in contact with hot asphalt. Rubberized suits or coats may be needed for some maintenance operations with hot asphalt.

Eye Protection: Use goggles and/or face shield when deemed appropriate.

Intermittent or occasional skin contact with cool petroleum asphalt is not expected to have serious health effects as long as good personal hygiene measures, such as those outlined in this material safety data sheet, are followed.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Asphalt is a dark-brown to black cementitious material, solid or semi-solid in consistency, in which the predominating constituents are bitumens which occur in nature as such or are obtained as residua in petroleum refining. It is a mixture of paraffinic and aromatic hydrocarbons and heterocyclic compounds containing sulfur, nitrogen, and oxygen.

The following data are approximate or typical values and should not be used for precise design purposes.

Boiling point:	> 400°F	Evaporation rate:	n/a
Auto ignition point:	765°F	Viscosity (@ 60°C):	30-6000cSt
Specific gravity:	0.87 – 1.13	Vapor pressure (@ 25°C):	<25mm Hg
Density:	7.9 – 9.4 lbs/gal	pH:	n/a
Water Solubility:	<0.1%	Volatile Compounds (by volume)	<50%

Section 10: STABILITY AND REACTIVITY

Cutback Asphalt is stable at normal temperatures and pressures.

Avoid all sources of ignition around hot asphalt and asphalt vapors.

Incompatible with oxidizing materials such as chlorates, nitrates, and peroxides.

Asphalt will not polymerize.

Hazardous Combustion Products: Combustion may produce CO_x, NO_x, SO_x, irritating vapors and hydrogen sulfide.

Section 11: TOXICOLOGICAL INFORMATION

Hazard evaluation is based on information from the ingredients of this product.

Hydrogen sulfide gas, which may accumulate in the airspace above stored asphalt, is irritating and can be fatal. The “rotten egg” odor of hydrogen sulfide should not be used as a reliable indicator as to the presence of the gas. Odor fatigue readily occurs as exposure to the gas increases. Odor sensation is immediately lost at concentrations greater than 150ppm. At concentrations around 1000ppm, hydrogen sulfide causes rapid death due to metabolic asphyxiation.

Polynuclear Aromatic Hydrocarbons (PAHs) are naturally occurring constituents of crude oils. Since asphalt cement is refined from crude oil, PAHs may be present in trace amounts in the asphalt cement. Repeated or prolonged exposure to some PAHs has been associated with effects to the liver, kidneys, immune system and skin. Some PAHs have been shown to be carcinogenic after prolonged or repeated skin contact in laboratory animals. However, the measured concentrations, and the frequency of PAHs occurring in paving asphalt, have been low.

The National Institute for Occupational Safety and Health (NIOSH) concludes that there is insufficient evidence for an association between lung cancer and exposure to paving asphalt fumes. Petroleum distillates have potential carcinogenic effects. However, serious health effects are not expected, as long as good personal hygiene is practiced, and safety measures outlined in this MSDS are followed.

Section 12: ECOLOGICAL

Ecological testing information is not available.

Section 13: DISPOSAL CONSIDERATIONS

It is the responsibility of the user to follow all local, state, and federal regulations applicable to disposal.

Section 14: TRANSPORTATION INFORMATION

US DOT 49 CFR 172.101 and 173

Shipping Name: Hot Asphalt, Cutback, n.o.s

DOT Identification Number: UN 1999

DOT Classification Number: 3

Packing Group: PG III

Placards Required: Flammable, UN 1999

Hot Asphalt Cement must not be transported when heated at or above its flash point.

Section 15: REGULATORY INFORMATION

CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):

This product is exempt from reporting requirements under 40 CFR Part 302.4. However, it may be reportable under 33 CFR part 153 if it is spilled into a US waterway and it produces a sheen on the water.

SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355):

This product is exempt from reporting requirements of Section 302 of SARA and 40 CFR Part 355.

SARA Title III Section 311/312 Hazardous Categorization (40 CFR Part 370):

This product is defined as hazardous by OSHA under 29 CFR Part 1910.1200(d).

SARA Title III Section 313 (40 CFR Part 372):

This product is exempt from reporting requirements of section 313 of SARA and 40 CFR Part 372.

U. S. Inventory (TSCA): Listed on inventory.

OSHA Hazard Communication Standard: Combustible liquid, Irritant. Contains a component listed by OSHA. Contains a component listed by ACGIH, Carcinogen.

STATE REGULATIONS:

California Proposition 65: Y

Known to the state of California to cause the following:

BITUMENS, EXTRACTS OF STEAM-REFINED AND AIR REFINED: Cancer (January 01, 1990)

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