

MATERIAL SAFETY DATA SHEET

Issue Date: 03/10/09 Supersedes: 02/15/03

1. CHEMICAL PRODUCT IDENTIFICATION & COMPANY IDENTIFICATION

Product name: **Asphalt Cement**
General Use: This product is used as a petroleum asphalt cement
Synonyms: PRODUCT GRADES: AC-5, AC-10, AC-15, AC-20, AC-30, Emulsion Base, 120/150, PG64-22, PG64-28, PG58-22, PG58-28, PG70-22, M-1, M-4A, 175 Pen

Responsible Party: McCall Oil and Chemical Corporation
5480 NW Front Avenue
Portland, Oregon 97210
Phone: 503-221-6400
Fax: 503-221-6414

24 Hour Emergency Phone Numbers:

McCall Oil: 503-219-0995
Foss Environmental: 503-283-1150

NFPA HAZARD CLASS: Health: 1 (Slight)
Flammability: 1 (Slight)
Reactivity: 0 (Insignificant)

2. COMPOSITION & INFORMATION ON INGREDIENTS

<u>HAZARDOUS COMPONENTS</u>	<u>% Volume</u>	<u>EXPOSURE GUIDELINES</u>		
		<u>Limits</u>	<u>Agency</u>	<u>Type</u>
Asphalt CAS# 8052-42-4 Eye, Skin, Respiratory Irritant; Thermal Hazard	99.9+	5mg/m3 (fumes)	ACGIH	TWA-skin
Hydrogen Sulfide CAS# 7783-06-4 Flammable Gas, Eye, Skin and Respiratory Irritant, Toxic by Inhalation	<0.10	10 ppm 15 ppm 10 ppm 15 ppm	ACGIH ACGIH OSHA OSHA	TWA STEL TWA STEL

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: A black colored, hot, semi-solid having an asphalt odor. This product can ignite at elevated temperatures and will burn. When heated for shipment and use, fumes and vapors are moderately irritating to eyes and respiratory tract. Contact with heated liquid material can cause severe thermal burns to all tissue contacted. Heated material may release toxic hydrogen sulfide fumes.

3. HAZARDS IDENTIFICATION (continued)

POTENTIAL HEALTH EFFECTS:

INHALATION: When product is heated, exposure to fumes may be moderately irritating to the respiratory tract. Symptoms of exposure may include: headache, dizziness, nausea and vomiting. High fume concentration may result in hydrogen sulfide exposure.

EYE CONTACT: When product is heated, exposure to fumes, mists or vapors may cause mild eye irritation. Symptoms of exposure may include: watering, redness and a stinging sensation. Thermal burns may result from contact with hot material and may cause corneal damage or visual impairment.

SKIN CONTACT: When product is heated, exposure to fumes, mists vapors or fume condensates may cause moderate skin irritation. Symptoms of exposure may include: redness, swelling, chemical burns and discoloration. No published reports indicate this product is absorbed through the skin.

INGESTION: Ingestion is not expected to be a probable route of exposure for this product.

CHRONIC: Prolonged or repeated skin exposure to this product may cause the development of dermatitis. Possible cancer hazard. Contains material which may cause cancer based on animal data.

4. FIRST AID MEASURES

INHALATION: If inhaled, immediately move to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. Call a physician.

EYE CONTACT: In case of contact with hot melted material, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower lids occasionally. Remove contact lenses, if worn. Get medical attention.

SKIN CONTACT: In case of contact with hot melted material, quickly cool in water. Do not try to peel the solidified material from the skin or use solvents or thinners to dissolve it. The use of vegetable oil or mineral oil is recommended for removal of the material from the skin. Remove contaminated clothing and shoes. If burns or irritation occurs get medical attention.

INGESTION: Ingestion is not expected to be a probable route of exposure for this product. First aid procedures for ingestion are not required.

NOTE TO PHYSICIANS: Exposure may result in hydrogen sulfide poisoning, which results in impairment of cellular oxidative phosphorylation producing neurotoxicity, metabolic acidosis and cardiovascular damage. Administration of 100% oxygen and supportive care constitute the preferred treatment for hydrogen sulfide poisoning.

5. FIRE FIGHTING MEASURES

Flashpoint and Method: Greater than 232° C (450° F) Cleveland Open Cup

Flammable Limits (in air, % by volume): Lower: No data available Upper: No data available

Autoignition Temperature: Approximately 392° C (700° F)

GENERAL HAZARD: This product is not a combustible per OSHA or WHMIS criteria, but will ignite at elevated temperatures and will burn. Heated material may release hydrogen sulfide fumes.

FIRE FIGHTING INSTRUCTIONS: EXTINGUISHING MEDIA: Foam, CO2 and dry chemicals. Use water spray or water fog to cool containers exposed to fire.

FIRE FIGHTING EQUIPMENT: Fire fighters should wear full protective equipment, including self-contained breathing apparatus.

HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition will produce toxic oxides of carbon and sulfur, with possible minute quantities of hydrogen sulfide gas and dense smoke.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL: If liquid material is spilled, allow it to cool and solidify before proceeding with disposal methods. Place in approved containers for disposal. Flush spill area with water, collect rinsates and containerize for disposal. Prevent run-off from contaminating sewers, streams or other bodies of water.

WATER SPILL: This material is insoluble in water. Stop or divert water flow. Dike contaminated water and remove for disposal and/or treatment. Notify all downstream users of possible contamination.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient

STORAGE PRESSURE: Ambient

GENERAL: Store in an area away from all sources of ignition and incompatible material. Avoid breathing fumes, vapors or mists from heated material. Use only with adequate ventilation. Protect eyes, skin and clothing from contact with heated material. Wear recommended protective equipment. Wash thoroughly after handling, before smoking, eating or drinking. Do not use solvents to clean hands and face. Use vegetable oils or mineral oil followed by a thorough washing with soap and water. Do not enter vapor spaces without proper respiratory equipment. Empty containers may be hazardous. They may contain organic residues that can be ignited and will burn. Do not cut, puncture or weld on or near empty containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL MEASURES: Not required for normal use of this product. If heated material generates fumes, vapors or mists, use local mechanical exhaust ventilation capable of maintaining emissions in the work area below a level where irritation is noticeable or below the ACGIH-TLV for asphalt or hydrogen sulfide.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATOR: Not required for normal use of this product. If use generates vapors or mists, wear a NIOSH-approved half mask air-purifying cartridge respirator equipped with an organic vapor cartridge or supplied air.

EYES; Not required for normal use of this product. If material is used at elevated temperatures, wear chemical goggles (recommended by ANSI Z87.1-1979) or a face shield.

GLOVES: Use heat resistant gloves when handling material at elevated temperatures.

CLOTHING & EQUIPMENT: Normal work clothes should be sufficient when handling product. An eye wash station and safety shower should be available in the work area.

FOOTWEAR: Normal work boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Black colored
Physical State:	Solid at ambient temperatures
Odor:	Petroleum odor
Odor Threshold:	No data available
Molecular Formula:	Not applicable – Mixture
Molecular Weight:	Not applicable – Mixture
Boiling Point:	Greater than 400° C (700° F)
Melting Point:	37 to 57° C (100 to 135° F)
Specific Gravity:	1.0 to 1.04 @ 20° C
Density (pounds/gallon):	8.3 to 8.7
Bulk Density (lbs/cuft):	Not applicable
Vapor Pressure:	No data available
Vapor Density (air=1):	No data available
Evaporation Rate (n-Butyl Acetate+1):	No data available
VOC Content:	No data available
% Volatile:	Negligible
Solubility in H2O:	Insoluble
Octanol/Water Partition Coefficient:	No data available
PH (as is):	Not applicable
PH (1% solution):	Not applicable

10. STABILITY AND REACTIVITY

GENERAL: This product is stable and hazardous polymerization will not occur

CONDITIONS TO AVOID: None known.

INCOMPATIBLE MATERIAL: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Heating of this product may produce hydrogen sulfide gas.

SENSITIVITY TO MECHANICAL IMPACT: This product is not sensitive to mechanical impact.

SENSITIVITY TO STATIC DISCHARGE: This product is not sensitive to static discharge.

11. TOXICOLOGICAL INFORMATION SUMMARY

Estimate of product toxicological data based on available individual component information.

Eye Irritation: No specific data available – heated product should be a moderate irritant

Skin Irritation: No specific data available – heated product should be a moderate irritant

Oral Rat LD50: No specific data available

Dermal Rabbit LD50: No specific data available

Inhalation Rat LC50: No specific data available

Synergistic Products: None reported

Target Organs: Eyes, Skin, and Lungs (heated product)

Medical Conditions Aggravated by Exposure: Respiratory and skin disorders

Toxicological Notes: Petroleum and petrochemical products may contain trace amounts of chemicals known to cause cancer and/or birth defects or other reproductive harm. Trace contaminants may be naturally present in the raw materials, may result from the manufacturing process, or the product may become inadvertently contaminated during handling.

The International Agency for Research on Cancer (IARC) reviewed the carcinogenic potential of asphalts in 1985 and again in 1987. They concluded there was inadequate evidence to decide that asphalts were carcinogenic to humans. Asphalt fume condensates and certain chemical components of asphalt fumes have been shown to cause cancer in mice when repeatedly applied to the skin and allowed to remain on the skin for a prolonged period of time. Asphalt fume condensates have been shown to be weakly positive in Ames mutagenicity tests.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:

The environmental fate of this product is expected to be: **Land:** no biodegradation or leaching into the groundwater. **Water:** no volatilization and biodegradation. **Air:** not expected to exist in vapor phase. Product is not expected to bioaccumulate.

ENVIRONMENTAL EFFECTS:

Aquatic toxicity information for this product is not available.

13. DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 CLASSIFICATION: Not applicable

U.S. EPA WASTE NUMBER/DESCRIPTION: None

If this product is disposed of as shipped, it does not meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of subpart C, nor is it listed as a hazardous waste under Subpart D. As a non-hazardous liquid waste, it should be disposed of in accordance with all local, state and federal regulations. Consult state or local officials for proper disposal method.

14. TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Shipped above 100° C but below the flash point: **Elevated Temperature Liquid, N.O.S.**

DOT HAZARD CLASS: below flash point - 9

UN NUMBER: below flash point – UN3257

PACKING GROUP: III

DOT LABELS: Primary: None required for bulk shipments Subsidiary: None required

DOT PLACARDS: below flash point – Class 9

DOT Reportable Quantity: None

MARINE POLLUTANT: No

1993 DOT Emergency Response Guidebook Number: 27

1996 North American Emergency Response Guidebook Number: 128

15. REGULATORY INFORMATION ON PRODUCT

Target Organs: Eyes, Skin and Lungs

Carcinogenic Potential:

Regulated by OSHA: Not applicable for this product

Listed on NTP Report: Not applicable for this product

IARC Listing: Product is listed as a Group 3

ACGIH Appendix A: Not applicable for this product

A1 Confirmed Human: Not applicable for this product

A1 Suspected Human: Not applicable for this product

U.S. EPA Requirements

Release Reporting under CERCLA (40 CFR 302):

Listed Substance: Not applicable for this product

Reportable Quantity: Not applicable for this product

RCRA Waste No: Not applicable for this product

SARA TITLE III

Section 302 & 303 (40 CFR 355)

Listed Substance: Not applicable for this product

Reportable Quantity: Not applicable for this product

Planning Threshold: Not applicable for this product

15. REGULATORY INFORMATION ON PRODUCT (continued)

SARA TITLE III (continued)

Section 311 & 312 (40 CFR 370)

Hazard Categories: Fire: N
Sudden Release of Pressure: N
Reactive: N
Acute Health: N
Chronic Health: Y
Planning Threshold: 10,000 pounds

Section 313 (40 CFR 372)

Listed Toxic Chemical: Product does not contain any listed components above the diminimus level
Reporting Threshold: Not applicable for this product

U.S. TSCA STATUS

Listed (40 CFR 710): All components of this product are listed in the TSCA Inventory

STATE REGULATIONS:

State of California

Safe Drinking Water and Toxins Enforcement Act, 1986 (Proposition 65)

Carcinogen: Not applicable for this product
Reproductive Toxin: Not applicable for this product

OTHER REGULATIONS

State Right to Know Laws: Asphalt is listed on the MA, NJ, PA and MN Right to Know Listings

16. OTHER INFORMATION

Special Notes: **WARNING:** Hot organic chemical vapors or mists are susceptible to sudden spontaneous combustion when mixed with air. Ignition may occur at temperatures below those published in the literature as “autoignition” or “ignition” temperatures. Ignition temperatures decrease with increasing vapor volume and vapor/air contact time and are influenced by pressure changes.

Ignition may occur at typical elevated-temperature process conditions, especially in processes operating under vacuum, if subjected to a sudden ingress of air, or outside process equipment operating under elevated pressure if a sudden escape of vapors or mists to the atmosphere occurs. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

MSDS Revision Information: Form Revision made 05/02/95
Information Revised This Issue Date: Combined product information and changed contact numbers
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