

MATERIAL SAFETY DATA SHEET
NAME OF PRODUCT ROAD OIL SC-800

FILE NUMBER: 1713
DATE PREPARED: 6/14/07

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

| | | | |
|-------------------------|--------------------------------------|--|-----------------------|
| PRODUCT NAME: | ROAD OIL SC-800 | HAZARDOUS MATERIALS IDENTIFICATION SYSTEM | |
| SYNONYMS: | PETROLEUM HYDROCARBON | HMIS® HAZARD RATING | |
| PRODUCT CODES: | 1713 | 4 – SEVERE | HEALTH 2* |
| MANUFACTURER: | TRICOR REFINING, LLC | 3 – SERIOUS | FLAMMABILITY 1 |
| DIVISION: | BAKERSFIELD | 2 – MODERATE | REACTIVITY 0 |
| ADDRESS: | P.O. BOX 5877, BAKERSFIELD, CA 93388 | 1 - SLIGHT | |
| EMERGENCY PHONE: | (661) 393-7110 | 0 - MINIMAL | |
| PREPARED BY: | TRICOR REFINING, LLC | HEALTH, SAFETY AND ENVIRONMENTAL AFFAIRS | |

MATERIAL HAZARD EVALUATION

(Per OSHA Hazard Communication Standard [29 CFR 1910.1200])

Health Precautions: **WARNING:** Fumes from hot product may cause irritation to the skin, nose, throat and lungs. Hot asphalt may give off hydrogen sulfide (H₂S) gas. At elevated concentrations, H₂S acts as a systemic poison and causes unconsciousness and death by respiratory paralysis.

Safety Precautions: **WARNING:** Hot asphalt can cause burns. If burned by hot product, cool affected area immediately with cool water. Do not attempt to remove asphalt from skin. Seek medical attention immediately.

SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

CHEMICAL FAMILY: PETROLEUM HYDROCARBON

| HAZARDOUS COMPONENT(S) | CAL-OSHA PEL TWA (8 HOUR) | ACGIH TLV TWA (8 HOUR) | OTHER LIMITS RECOMMENDED | % BY WEIGHT |
|---|---------------------------|--|---|-------------|
| Petroleum Asphalt CAS No. 8052-42-4 | 5 mg/m ³ | 0.5 mg/m ³ (as the inhalable fraction) | NIOSH REL 5 mg/m ³ (15 Minute) | >70 |
| Gas Oil Petroleum CAS No. 64741-43-1 | 5 mg/m ³ | 5 mg/m ³ (as oil mist) | None | <25 |
| Petroleum Distillate CAS No. 64741-52-2 | 5 mg/m ³ | 5 mg/m ³ (as oil mist) | None | <10 |
| Heavy Naphthenic Extract CAS No. 64742-11-6 (Petroleum) | 5 mg/m ³ | 5 mg/m ³ (as oil mist) | None | <10 |

SECTION 3: HEALTH HAZARDS IDENTIFICATION

| | | | | |
|-------------------------|------------------|------------------|-----------------------|------------------------|
| ROUTES OF ENTRY: | EYES: Yes | SKIN: Yes | INGESTION: Yes | INHALATION: Yes |
|-------------------------|------------------|------------------|-----------------------|------------------------|

HEALTH HAZARDS (ACUTE AND CHRONIC):

EYES: The cool semi-solid material is not expected to cause eye irritation. Thermal burns may result from contact with hot material. Some asphalts, when heated, may produce hydrogen sulfide gas (H₂S) (CAS No. 7783-06-4), which is a severe eye irritant. See Section 8 for exposure controls.

SKIN: The cool semi-solid material is not expected to cause skin irritation. Thermal burns may result from contact with hot material. NIOSH states that asphalt fumes or vapors can be absorbed through the skin.

INGESTION: This product may be harmful or fatal if swallowed. May cause dizziness, lack of coordination, headache, nausea and vomiting. Do not induce vomiting, call a physician.

INHALATION: Fumes from hot products may be unpleasant and may irritate the upper and lower respiratory tracts. Remove the person to fresh air if respiratory discomfort occurs. Some asphalts, when heated, may give off hydrogen sulfide gas (H₂S) (CAS No. 7783-06-4), which is a poison by inhalation and a severe irritant to the nose and throat. See Section 8 for exposure controls.

CARCINOGENICITY:

ACGIH, NTP, OSHA and IARC carcinogen lists were checked for those components with CAS Registry Numbers (8052-42-4), (64741-43-1), (64741-52-2) and (64742-11-6).

ACGIH: Asphalt fumes (coal tar-free) are designated as A4 – NOT CLASSIFIABLE AS A HUMAN CARCINOGEN.

IARC: Bitumens – including undiluted air-refined bitumens - are described as “NOT CLASSIFIABLE AS TO ITS CARCINOGENICITY TO HUMANS” (Group 3). Extracts of air refined bitumens are described as “POSSIBLY CARCINOGENIC TO HUMANS” (Group 2B). (Monograph, vol. 35; Supplement 7, p. 133)
This product contains petroleum oils similar to ones categorized by the International Agency for Research on Cancer as causing skin cancer in laboratory animals when the oil was repeatedly applied for most of the lifetime of the animal with no effort made to remove the oil between applications. Handling instructions and precautions outlined in this MSDS should be followed when handling this product.

NTP: Asphalt fumes are not listed as a known or reasonably anticipated human carcinogen.

OSHA: Asphalt fumes are not classified as carcinogens.

SIGNS AND SYMPTOMS OF EXPOSURE:

EYES: Burns, irritation, redness or blurred vision

SKIN: Burns, irritation, redness and inflammation

INGESTION: Dizziness, lack of coordination, headache, nausea or vomiting. Do not induce vomiting.

INHALATION: Asphalt fumes may cause nose and throat irritation, coughing, wheezing or shortness of breath, nausea, headaches, stomach pain, decreased appetite or fatigue.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Persons with preexisting skin or respiratory disorders may have their conditions aggravated by overexposure to this material.

SECTION 4: EMERGENCY AND FIRST AID MEASURES

EYES: Immediately flush eyes with water for a minimum of 15 minutes. Seek medical attention immediately.

SKIN: If hot material is splashed on the skin, immediately drench or immerse the area in water. If available, apply ice water, ice packs or a water gel blanket on the affected area. Do not try to remove the asphalt from the skin once it has cooled and do not use solvents or thinners to remove the asphalt from the skin. Seek medical attention immediately. Medical personnel can soften and remove the cooled asphalt from the skin by using petroleum jelly or mineral oil.

INGESTION: Do not induce vomiting. If ingested, seek medical attention.

INHALATION: If operating conditions create airborne concentrations that exceed the exposure standard, move the person to fresh air. Administer CPR if required. Provide oxygen if breathing is difficult. Seek medical attention immediately.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

**FLAMMABLE LIMITS IN AIR,
(% BY VOLUME)**

UPPER: No data available
LOWER: No data available

FLASH POINT: COC °F: Greater than 250°

EXTINGUISHING MEDIA: Foam, water fog, dry chemical, CO²

SPECIAL FIRE FIGHTING PROCEDURES: Do not enter confined fire space without proper protective equipment including self-contained breathing apparatus. See Hazardous Decomposition Products. Water or foam may cause frothing. Use of water on asphalt above 100° C (212° F) can cause product to expand with explosive force.

HAZARDOUS DECOMPOSITION PRODUCTS:
Normal combustion forms carbon dioxide and water vapor, and may produce oxides of sulfur and nitrogen. Incomplete combustion can produce carbon monoxide.

SECTION 6: SPILL OR LEAK PROCEDURES

ACCIDENTAL RELEASE MEASURES: In case of spill, clean up using absorbent material such as earth or sand.

WASTE DISPOSAL METHOD: Observe Federal, State and Local regulations covering chemical waste spills.

RCRA HAZARD CLASS: This product is not a characteristic hazardous waste under RCRA. No EPA waste numbers are applicable for this product's components.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Liquid asphalt is extremely hot. To avoid serious burns, always use the following precautions. Never expose bare skin. Wear a long sleeve cotton shirt, a full-face shield, safety goggles and heavy-duty gloves that extend up the arm past the shirt cuff. NIOSH and ACGIH recommend keeping asphalt temperatures as low as possible. NIOSH advises use of engineering controls and good work practices at all work sites to minimize worker exposure to asphalt fumes. Some asphalts, when heated, may give off hydrogen sulfide gas (H₂S). See Section 8 for exposure controls.

VENTILATION: Use adequate ventilation to keep the airborne concentrations of this material below the established exposure limits.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: If operating conditions create airborne concentrations that exceed the exposure standard for asphalt fumes, the use of an approved NIOSH/OSHA respirator for organic vapors or air supplied breathing equipment is recommended.

Hydrogen Sulfide Exposure Limit:
ACGIH: (10PPM) TLV-TWA
(15PPM) TLV-STEL
CAL-OSHA: 10PPM / (14 mg/m³ of air) – PEL
15PPM / (21 mg/m³ of air) – STEL
50PPM - ceiling

EYE PROTECTION: Wear appropriate safety glasses, goggles or full-face shield.

SKIN PROTECTION: Long sleeve cotton shirt and cotton pants are recommended. Wear appropriate gloves.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Black

ODOR: Petroleum odor

PHYSICAL STATE: Liquid

BOILING POINT: Greater than 550° F

VAPOR PRESSURE (mmHg): 0.5

VAPOR DENSITY (AIR = 1): NA

SPECIFIC GRAVITY (H₂O = 1): .97

PERCENT VOLATILE (% BY VOL.): NA

EVAPORATION RATE (ETHYL ETHER = 1): NA

SOLUBILITY IN WATER: NIL

SECTION 10: REACTIVITY DATA

STABILITY: Stable
CONDITIONS CONTRIBUTING TO INSTABILITY: None
INCOMPATIBILITY (MATERIAL TO AVOID): May react with strong oxidizers.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:
Normal combustion forms carbon dioxide and water vapor, and may produce oxides of sulfur and nitrogen. Incomplete combustion can produce carbon monoxide.
HAZARDOUS POLYMERIZATION: Will not occur

SECTION 11: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION:

PROPER SHIPPING NAME: ELEVATED TEMPERATURE LIQUID, N.O.S.
HAZARD CLASS: 9 **PACKING GROUP:** III
ID NUMBER: UN3257 **REQUIRED LABEL(S):** CLASS 9

SECTION 12: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

TSCA (TOXIC SUBSTANCE CONTROL ACT) REGISTRY: Listed

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT):
Asphalt is not a hazardous substance under CERCLA.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

Section 302/304: Asphalt is a hazardous chemical under 40 CFR Part 355. Asphalt is not listed as an extremely hazardous substance in 40 CFR Part 355, and is not known to contain an extremely hazardous substance in a concentration greater than one percent by weight.

Section 311/312:

| | |
|--------------------------|-----|
| Acute Health Hazard: | Yes |
| Chronic Health Hazard: | Yes |
| Fire Hazard: | No |
| Pressure Release Hazard: | No |
| Reactivity Hazard: | No |

Section 313: This product is not known to contain any components in concentrations above *de minimus* levels that are listed as toxic in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA.

WHMIS: NDA

OSHA: 29 CFR 1910.1200 (Hazard Communication) required

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65 (The Safe Drinking Water and Toxics Enforcement Act):
This product contains chemicals in trace quantities that are on the California Proposition 65 carcinogens list.

OTHER STATES: Asphalt or asphalt fumes appear on one or more of the hazardous substances lists in the following states:
CA FL MA MN NJ PA WA

The information provided in this Material Safety Data Sheet is believed to be accurate and reliable on and as of the date on page one. **However, this Material Safety Data Sheet is not a guarantee or warranty of any kind, express or implied. Any and all warranties of merchantability and/or fitness for a particular purpose are specifically disclaimed.** It is the user's responsibility to determine the conditions under which the product is used, including the selection of engineering controls, work practices and Personal Protective Equipment to minimize hazards.