



# Material Safety Data Sheet

MSDS ID NO.: 0146MAR019  
Revision date: 09/12/2005

## 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product name:** Marathon High Performance Cold Mix Binder  
**Synonyms:** High Performance Cold Mix Binder; HP-2; HP-4; KP-2; KP-4; KP-6; Performac™ HP-4; Performac™ KP-4  
**Chemical Family:** Asphalt  
**Formula:** Mixture

**Manufacturer:**  
Marathon Petroleum Company LLC  
539 South Main Street  
Findlay OH 45840

**Other information:** 419-421-3070  
**Emergency telephone number:** 877-627-5463

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

High Performance Cold Mix Binder is an asphalt mixed with varying proportions of kerosene, No. 2 fuel oil, residuum extract, heavy paraffinic distillate solvent extract and fatty acid amines. Composition varies depending on source of crude and specifications of final product. May contain minor amounts of sulfur, nitrogen and oxygen containing compounds.

### Product information

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Marathon High Performance Cold Mix Binder	Mixture	100	=0.5 mg/m <sup>3</sup> TWA		

### Component Information

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
No. 2 Fuel Oil	64741-44-2	10-40			
Kerosene	8008-20-6	0-10	= 200 mg/m <sup>3</sup> TWA application restricted to conditions in which there are negligible aerosol exposures skin - potential for cutaneous absorption (as total hydrocarbon vapor)		
Fatty Acid Amines	Mixture	1-5			
Sulfur Compounds	Mixture	0-5			
Extracts, Petroleum Heavy Paraffinic Distillate Solvent	64742-04-7	0-0.8			
Asphalt	8052-42-4	55-90	=0.5 mg/m <sup>3</sup> TWA (inhalable fraction, as benzene-soluble aerosol)		
Hydrogen Sulfide	7783-06-4	0-0.5	= 10 ppm TWA = 15 ppm STEL	= 10 ppm TWA = 14 mg/m <sup>3</sup> TWA = 15 ppm STEL = 21 mg/m <sup>3</sup> STEL	

**Notes:**

The manufacturer has voluntarily elected to reflect exposure limits contained in OSHA's 1989 air contaminants standard in its MSDS's, even though certain of those exposure limits were vacated in 1992.

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

BLENDED ASPHALT PRODUCTS ARE DARK BROWN TO BLACK, SOLID OR SEMI-SOLID LIQUIDS. ASPHALT IS MOLTEN ABOVE 200 DEGREES F AND SKIN CONTACT WILL CAUSE THERMAL BURNS. WHEN HEATED THIS MATERIAL MAY VENT TOXIC LEVELS OF HYDROGEN SULFIDE (H<sub>2</sub>S) VAPORS THAT ACCUMULATE IN THE VAPOR SPACES OF STORAGE AND TRANSPORT COMPARTMENTS. H<sub>2</sub>S VAPORS CAN CAUSE EYE, SKIN, AND RESPIRATORY TRACT IRRITATION AND ASPHYXIATION. AVOID SKIN CONTACT. LONG TERM SKIN EXPOSURE TO COMPONENTS OF THIS PRODUCT HAS CAUSED CANCER IN LABORATORY ANIMALS. THIS PRODUCT IS CONSIDERED TO BE A COMBUSTIBLE LIQUID PER THE OSHA HAZARD COMMUNICATION STANDARD AND SHOULD BE KEPT AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION.

#### OSHA WARNING LABEL:

**WARNING.  
HOT ASPHALT  
COMBUSTIBLE LIQUID.  
MAY PRODUCE SEVERE BURNS.  
MAY VENT HARMFUL CONCENTRATIONS OF HYDROGEN SULFIDE (H<sub>2</sub>S) GAS WHICH CAN CAUSE  
RESPIRATORY IRRITATION AND ASPHYXIATION.  
LONG-TERM SKIN EXPOSURE TO COMPONENTS OF THIS PRODUCT HAS CAUSED CANCER IN LABORATORY  
ANIMALS.**

#### CONSUMER WARNING LABEL:

**A CONSUMER WARNING LABEL IS NOT APPLICABLE FOR THIS PRODUCT.**

**Inhalation:** Vapors and fumes can cause respiratory and nasal irritation. Significant concentrations of hydrogen sulfide gas can be present in the vapor space of storage tanks and bulk transport compartments (See Sections 7, 8 & 11).

**Ingestion:** Product would be expected to have a low order of acute toxicity.

**Skin contact:** Hot product causes severe burns. Frequent or prolonged contact with cold material may cause irritation.

**Eye contact:** Hot product causes severe burns.

#### Carcinogenic Evaluation:

##### Product information

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Marathon High Performance Cold Mix Binder Mixture	NE			

**Notes:** The International Agency for Research on Cancer (IARC) has determined that there is sufficient evidence for the carcinogenicity of extracts of steam-refined bitumens (asphalts), air-refined bitumens and pooled mixtures of steam- and air-refined bitumens in experimental animals. IARC has determined that there is inadequate evidence that bitumens alone are carcinogenic to humans.

##### Component Information

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
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Kerosene 8008-20-6			A3 - Animal Carcinogen (as total hydrocarbon vapor)	
Asphalt 8052-42-4	Supplement 7, 1987; Monograph 35, 1985; (extracts of steam and air refined bitumens)		A4 - Not Classifiable as a Human Carcinogen (as benzene-soluble aerosol)	

**Notes:** The International Agency for Research on Cancer (IARC) has determined that there is sufficient evidence for the carcinogenicity of untreated vacuum distillates, acid-treated oils, and aromatic oils, including extracts from solvent treatment of distillates and the high boiling fraction of catalytically cracked oils in animals.

The International Agency for Research on Cancer (IARC) has determined that there is inadequate evidence for the carcinogenicity of diesel fuel/fuel oil in humans. IARC determined that there was limited evidence for the carcinogenicity of marine diesel fuel in animals. Distillate (light) diesel fuels were not classifiable as to their carcinogenicity to humans (Group 3A)

## 4. FIRST AID MEASURES

**Inhalation:** If affected, move person to fresh air. If breathing is difficult, administer oxygen. If not breathing or if no heartbeat, give artificial respiration or cardiopulmonary resuscitation (CPR). Immediately call a physician. If symptoms or irritation occur with any exposure, call a physician.

**Skin contact:** For contact with hot molten material, immerse or flush skin with cold water for at least 15 minutes. Call a physician. Do not attempt to remove solidified material since removal may cause further tissue injury. Cold material over a burn should not be removed except by a physician. Remove cold material (not associated with a burn) with waterless handcleaner and then wash with soap and water. If symptoms or irritation occur, call a physician.

**Ingestion:** Ingestion not likely. If large amounts are swallowed, immediately call a physician.

**Eye contact:** For contact with hot molten material, flush with large amounts of tepid water for at least 15 minutes. Immediately call a physician.

For contact with vapors or dust, flush with large amounts of tepid water for at least 15 minutes. If symptoms or irritation occur, call a physician.

**Notes to physician:** Recommended practice is to not attempt to remove hot material associated with a burn. Allow the solidified material to remain in place until cooled so it can naturally fall off. Natural separation will occur in 48-72 hours. If removal is attempted, mineral oil may be used to remove asphalt once it is cooled. For best results, work it into the skin around the material and allow the material to "float" off.

**Medical conditions aggravated by exposure:** Preexisting skin, eye and respiratory disorders may be aggravated by exposure to components of this product.

## 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media:** For small fires, Class B fire extinguishing media such as CO<sub>2</sub>, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFT/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

<b>Specific hazards:</b>	This product has been determined to be a combustible liquid per the OSHA Hazard Communication Standard and should be handled accordingly. For additional fire related information, see NFPA 30 or the North American Emergency Response Guide 128.
<b>Special protective equipment for firefighters:</b>	Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep run-off water out of sewers and water sources.
<b>Flash point:</b>	>100 F
<b>Autoignition temperature:</b>	No data available.
<b>Flammable limits in air - lower (%):</b>	0.7
<b>Flammable limits in air - upper (%):</b>	5.0
<b><u>NFPA rating:</u></b>	<b><u>HMIS classification:</u></b>
Health: 2	Health: 2
Flammability: 2	Flammability: 2
Reactivity: 1	Reactivity: 1
Other: -	Special: *See Section 8 for guidance in selection of personal protective equipment.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Advise authorities and National Response Center (800-424-8802) if substance has entered a watercourse or sewer. Notify local health and pollution control agencies, if appropriate. Contain liquid with sand or soil. Recover and return product to source.
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## 7. HANDLING AND STORAGE

**Handling:**  
Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Use appropriate grounding and bonding practices. Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Do not cut, drill, grind or weld on empty containers since they may contain explosive residues.

Significant concentrations of hydrogen sulfide (H<sub>2</sub>S) gas can be generated and accumulate in storage tanks and bulk transport compartments which may require additional precautions and procedures during loading/unloading. When opening covers and outlet caps on storage tanks, use face shield and gloves to avoid possible injury from pressurized product. Stay upwind and vent open hatches before unloading. Keep heating coils and flues in storage tanks, trucks and kettles covered with product (8"). Do not overheat.

Avoid skin contact. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### PERSONAL PROTECTIVE EQUIPMENT

**Engineering measures:** Local or general exhaust required in an enclosed area or when there is inadequate ventilation.

**Respiratory protection:** Not required under normal conditions and adequate ventilation. When H<sub>2</sub>S vapors exceed permissible limits, i.e., in confined spaces or bulk transport loading/unloading, a positive-pressure atmosphere supplying respirator is recommended. Self-contained breathing apparatus should be used for fire fighting.

**Skin and body protection:** Insulated gloves when handling hot material.

**Eye protection:** Goggles and faceshield when handling hot material.

**Hygiene measures:** Rubberized suits or coats may be needed for some maintenance operations with hot material.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

**Appearance:** Black-brown Solid Or Semi-solid  
**Physical state (Solid/Liquid/Gas):** Liquid  
**Substance type (Pure/Mixture):** Mixture  
**Color:** Black-Brown  
**Odor:** Tar  
**Molecular weight:** Not determined.  
**pH:** Neutral  
**Boiling point/range (5-95%):** No data available.  
**Melting point/range:** 60 F  
**Decomposition temperature:** Not applicable.  
**Specific gravity:** 0.9-1.05  
**Density:** 7.5-8.7 lbs/gal  
**Bulk density:** No data available.  
**Vapor density:** No data available.  
**Vapor pressure:** 1-10 mm Hg @ 100 F  
**Evaporation rate:** No data available.  
**Solubility:** Not determined  
**Solubility in other solvents:** No data available.  
**Partition coefficient (n-octanol/water):** No data available.  
**VOC content(%):** No data available.  
**Viscosity:** No data available.

## 10. STABILITY AND REACTIVITY

**Stability:** The material is stable at 70 F, 760 mm pressure.

**Polymerization:** Will not occur.

**Hazardous decomposition products:** Combustion produces toxic oxides of sulfur, carbon monoxide, sulfur dioxide, hydrogen sulfide and hydrocarbons.

**Materials to avoid:** Strong oxidizers such as nitrates, chlorates, peroxides.

**Conditions to avoid:** Excessive heat, sources of ignition, open flame.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:**

### Product information

Name	CAS Number	Inhalation:	Dermal:	Oral:
Marathon High Performance Cold Mix Binder	Mixture	No data available	No data available	No data available

Some epidemiologic studies conducted on workers exposed to asphalt fume have shown no increased incidence of cancer while other studies have reported a slightly increased incidence of lung, other respiratory tract or gastrointestinal cancers. In those studies in which elevated cancer incidences were reported, concurrent or previous exposure to coal-tar products have been documented. therefore, it cannot be concluded that cancer incidence is related to exposure to asphalt fume.

Although early studies have some technical shortcomings, long term inhalation exposures to asphalt aerosols or fumes did not produce evidence of carcinogenicity even though chronic inflammatory changes similar to those produced by nonspecific respiratory irritants were observed. Inhalation of 150 mg/m<sup>3</sup> asphalt fume (particulate + vapor) 6 hours/day, 5 days/week for 13 weeks, did not produce toxicity except for reduced body weight and irritation in nasal passages in exposed rats.

Laboratory animals administered subcutaneous or intramuscular injections of asphalt preparations or repeated skin applications of hot (212 F) undiluted asphalt have occasionally produced a low incidence of skin tumors at the site of application. These findings are of questionable validity since repeated tissue trauma (and/or burns) at the application site can induce tumors. Solvent dilutions of different types of asphalts have been tested in chronic skin painting studies. Some of the studies have reported a low incidence of skin tumors. The use of diluents may enhance bioavailability or metabolic activation of chemicals in the mixture in a fashion not representative of occupational exposure. Skin painting studies in mice have been conducted using condensates from fumes generated at temperatures >450 F diluted in solvent. Asphalt fume condensate preparations have produced skin tumors. Experimental conditions (temperature and dose) were grossly exaggerated over that likely to occur in humans.

Extracts of whole asphalts tested in a modified Ames assay gave negative or slightly positive findings (mutagenicity index <1.5). Fume condensates derived from heating asphalts to high temperatures (>450 F) were moderately active (MI 4-9). Fumes generated from coal tar pitch were >1000 times more active. Asphalt fume samples collected under actual field conditions did not show any significant mutagenic activity.

#### Summary of health effect data on asphalt components:

This product can contain a toxicologically significant concentration of hydrogen sulfide (H<sub>2</sub>S). Hydrogen sulfide gas (H<sub>2</sub>S) is toxic by inhalation. Prolonged breathing of 50-100 ppm H<sub>2</sub>S 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 >1000 ppm will cause immediate unconsciousness and death through respiratory paralysis. Rats and mice exposed to 80 ppm H<sub>2</sub>S, 6 hrs/day, 5 days/week for 10 weeks, did not produce any toxicity except for irritation of nasal passages. H<sub>2</sub>S did not affect reproduction and development (birth defects or neurotoxicity) in rats exposed to concentrations of 75-80 ppm or 150 ppm H<sub>2</sub>S, respectively. Over the years a number of acute cases of H<sub>2</sub>S poisonings have been reported. Complete and rapid recovery is the general rule. However, if the exposure was sufficiently intense and sustained causing cerebral hypoxia (lack of oxygen to the brain), neurologic effects such as amnesia, intention tremors or brain damage are possible.

This product may contain Kerosene at a level of >1.0%. This product may contain No. 2 fuel oil at a level of >1.0%. Lifetime skin painting studies in animals with similar middle distillate fuel oils and gas oils have produced tumors following prolonged and repeated skin contact. Some middle distillates and/or light gas oils, when tested at nonirritating dose levels, did not show any significant carcinogenic activity indicating that this tumorigenic response may be related to chronic irritation and not to dose. Repeated dermal application has produced severe irritation and systemic toxicity in subacute toxicity studies. Some components of this product, i.e., paraffins and olefins, have been shown to produce a species specific sex hormonal dependent kidney lesion in male rats from repeated oral or inhalation exposure. Subsequent research has shown that the kidney damage develops via the formation of alpha-2u-globulin, a mechanism unique to the male rat. Humans do not form alpha-2u-globulin, therefore, the kidney effects resulting from this mechanism are not relevant in humans. Some components 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. This product may contain residuum extract (solvent deasphalted residual oil) at a level of >1.0%. Lifetime skin painting studies in animals with petroleum residua and/or its major components have produced tumors in animals following prolonged and repeated skin contact. Repeated dermal application has produced severe irritation and systemic toxicity in subacute toxicity studies. Some components of petroleum residua streams 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.

This product may contain a heavy distillate aromatic extract at a level of 0-0.8%. Lifetime skin painting studies with heavy distillate aromatic extracts (HDAE) have produced tumors following prolonged and repeated skin contact. HDAE was found to be positive in an Ames mutagenicity test. Repeated dermal application of HDAE (30 mg/kg/day for 13 weeks)

resulted in anemia, liver degeneration and injury to bone marrow and lymphoid tissues. Treatment related mortality and body weight reduction was observed at 500 mg/kg. Repeated dermal application (125 mg/kg/day) of HDAE to pregnant rats during gestation produced maternal and fetal toxicity. Increased resorptions were observed at doses of 30 mg/kg/day and above.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects:** If spilled, hot product and/or the coating action of the oil components could harm plant life. This product does not concentrate or accumulate in the food chain. This product is not expected to cause any acute or chronic toxicity to aquatic organisms due to its extremely low water solubility.

## 13. DISPOSAL CONSIDERATIONS

**Cleanup Considerations:** This product as produced is not specifically listed as an EPA RCRA hazardous waste according to federal regulations (40 CFR 261). However, when discarded or disposed of, it may meet the criteria of an "characteristic" hazardous waste. This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s). It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

## 14. TRANSPORT INFORMATION

49 CFR 172.101:

**DOT:**  
**Transport Information:** This material when transported via US commerce would be regulated by DOT Regulations.  
  
Comments: For domestic shipments only, the Proper Shipping Name "Asphalt, Cut Back" may be used.

<b>Proper shipping name:</b>	Tars, Liquid
<b>UN/Identification No:</b>	UN 1999
<b>Hazard Class:</b>	3
<b>Packing group:</b>	II
<b>DOT reportable quantity (lbs):</b>	Not applicable.

**TDG (Canada):**

<b>Proper shipping name:</b>	Tars, Liquid
<b>UN/Identification No:</b>	UN 1999
<b>Hazard Class:</b>	3
<b>Packing group:</b>	II
<b>Regulated substances:</b>	Not applicable.

## 15. REGULATORY INFORMATION

### Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b): This product and/or its components are listed on the TSCA Chemical Inventory.

OSHA Hazard Communication Standard:

This product has been evaluated and determined to be hazardous as defined in OSHA's Hazard Communication Standard.

**EPA Superfund Amendment & Reauthorization Act (SARA):**

**SARA Section 302:** This product contains the following component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
No. 2 Fuel Oil	NA
Kerosene	NA
Fatty Acid Amines	NA
Sulfur Compounds	NA
Extracts, Petroleum Heavy Paraffinic Distillate Solvent	NA
Asphalt	NA
Hydrogen Sulfide	hydrogen sulfide

**SARA Section 304:** This product contains the following component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
No. 2 Fuel Oil	NA
Kerosene	NA
Fatty Acid Amines	NA
Sulfur Compounds	NA
Extracts, Petroleum Heavy Paraffinic Distillate Solvent	NA
Asphalt	NA
Hydrogen Sulfide	= 100 lb final RQ = 45.4 kg final RQ

**SARA Section 311/312:** The following EPA hazard categories apply to this product:

- Acute Health Hazard
- Chronic Health Hazard
- Fire Hazard

**SARA Section 313:** This product contains the following component(s) that may be subject to reporting on the Toxic Release Inventory (TRI) From R:

Name	CERCLA/SARA 313 Emission reporting:
No. 2 Fuel Oil	None
Kerosene	None
Fatty Acid Amines	None
Sulfur Compounds	None
Extracts, Petroleum Heavy Paraffinic Distillate Solvent	None
Asphalt	None
Hydrogen Sulfide	None

**State and Community Right-To-Know Regulations:**

The following component(s) of this material are identified on the regulatory lists below:

- No. 2 Fuel Oil
- Louisiana Right-To-Know: Not Listed
  - California Proposition 65: Not Listed
  - New Jersey Right-To-Know: sn 2452
  - Pennsylvania Right-To-Know: Not Listed.
  - Massachusetts Right-To Know: Not Listed.
  - Florida substance List: Not Listed.

Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
<b>Kerosene</b>	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	sn 1091
Pennsylvania Right-To-Know:	[present]
Massachusetts Right-To Know:	Present
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Flammable
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	SN 1091
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
<b>Fatty Acid Amines</b>	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
<b>Sulfur Compounds</b>	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed

New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
<b>Extracts, Petroleum Heavy Paraffinic Distillate Solvent</b>	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Carcinogen; Extraordinarily hazardous
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	carcinogen; extraordinarily hazardous
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
<b>Asphalt</b>	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	sn 0170
Pennsylvania Right-To-Know:	[present]
Massachusetts Right-To Know:	Present
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic, Flammable
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed

New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
Hydrogen Sulfide	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	sn 1017
Pennsylvania Right-To-Know:	environmental hazard
Massachusetts Right-To Know:	Extraordinarily hazardous
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic, Flammable
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	extraordinarily hazardous
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	flammable - fourth degree
New Jersey - Environmental Hazardous Substances List:	SN 1017
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	= 100 lbs Air RQ = 100 lbs Land/Water RQ

**Canadian Regulatory Information:**

Canada DSL/NDSL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or the Non Domestic Substance List (NDSL).

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
Kerosene	B3; D2B	
Hydrogen Sulfide	A; B1; D1A; D2B	1% (English Item 851, French Item 1550)

**16. OTHER INFORMATION**

**Additional Information:** The pronounced and easily-recognized rotten egg odor of hydrogen sulfide gas (H<sub>2</sub>S) can be detected at concentrations as low as 0.003-0.13 ppm. Since higher H<sub>2</sub>S concentrations (100-200 ppm) cause olfactory fatigue and other hydrocarbon odors can "mask" H<sub>2</sub>S, the sense of smell cannot be used as a reliable indicator of H<sub>2</sub>S exposure.

**Prepared by:** Craig M. Parker Manager, Toxicology and Product Safety

The information and recommendations contained herein are based upon tests believed to be reliable. However, Marathon Petroleum Company LLC (MPC) does not guarantee their accuracy or completeness nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage maybe required. MPC assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

**End of Safety Data Sheet**