



# SAFETY DATA SHEET

SDS ID NO.: 0137MAR019  
Revision Date 05/19/2015

## 1. IDENTIFICATION

**Product Name:** Marathon Petroleum Anionic Emulsified Asphalt

**Synonym:** Anionic Emulsified Asphalt; AE-F; AE-P; AE-PL; AE-T; AE-3; AE-60; AE-90; AE-90S; AE-150; AE-200; AE-300; EA-90; EA-150; EA-300; HFE-90; HFE-150; HFE-300; HFMS-2; HFP; HFRS-1; HFRS-2; HFRS-2P; MS-2; MS-3; MWS-90; MWS-150; MWS-300; PEA; PEP; RS-1; RS-2; RS-2L; RS-2P; RS-3; SS-1; SS-1H; SS-1HL; SS-1H LTT; SS-1HP; SS-1M; HF Series; HFP Emulsified Asphalt; Tack Coat; Non Track Tack; Marathon NTT-No Track Tack; Marathon NTT - No Track Tack Polymerized; 0341MAR019; 0342MAR019

**Product Code:** 0137MAR019

**Chemical Family:** Asphalt

**Recommended Use:** Road Building & Other Service.

**Restrictions on Use:** All others.

**Manufacturer, Importer, or Responsible Party Name and Address:**  
**MARATHON PETROLEUM COMPANY LP**  
539 South Main Street  
Findlay, OH 45840

**SDS information:** 1-419-421-3070

**Emergency Telephone:** 1-877-627-5463

## 2. HAZARD IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|  |             |
|--|-------------|
| Acute toxicity - Inhalation (Dusts/Mists)          | Category 4  |
| Skin corrosion/irritation                          | Category 2  |
| Serious eye damage/eye irritation                  | Category 2A |
| Skin sensitization                                 | Category 1A |
| Carcinogenicity                                    | Category 2  |
| Specific target organ toxicity (repeated exposure) | Category 2  |
| Acute aquatic toxicity                             | Category 2  |
| Chronic aquatic toxicity                           | Category 2  |

#### **Hazards Not Otherwise Classified (HNOC)**

Hot liquid may cause thermal burns  
May release hydrogen sulfide gas

### Label elements

**EMERGENCY OVERVIEW**

**Warning**

Contact with product at elevated temperatures can result in thermal burns  
May release highly toxic hydrogen sulfide gas that quickly fatigues the sense of smell  
Harmful if inhaled  
Causes skin irritation  
Causes serious eye irritation  
May cause an allergic skin reaction  
Suspected of causing cancer  
May cause damage to organs (liver, spleen, bone marrow) through prolonged or repeated exposure  
Toxic to aquatic life with long lasting effects

Up to 10% of the mixture consists of ingredient(s) of unknown toxicity



**Appearance** Black-brown solid or semi-solid at room temperature. Liquid at temperatures >70°C.

**Physical State** Liquid

**Odor** Hydrocarbon / Tar

**Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Do not breathe dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection  
Wash hands and any possibly exposed skin thoroughly after handling  
Contaminated work clothing should not be allowed out of the workplace  
Avoid release to the environment

**Precautionary Statements - Response**

IF exposed or concerned: Get medical attention  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical attention  
IF ON SKIN: Wash with plenty of soap and water  
If skin irritation or rash occurs: Get medical attention  
Take off contaminated clothing and wash before reuse  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
Call a POISON CENTER or doctor if you feel unwell  
Collect spillage

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container at an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

This product is an Anionic Emulsified Asphalt mixed with varying proportions of No. 2 fuel oil and an anionic emulsifier. May contain polymer modifiers. Composition varies depending on source of crude and specifications of final product. May contain minor amounts of sulfur, nitrogen and oxygen containing compounds.

**Composition Information:**

| Name   | CAS Number  | % Concentration |
|--|-------------|-----------------|
| Asphalt                                      | 8052-42-4   | 30-75           |
| Distillates (petroleum), straight-run middle | 64741-44-2  | 0-40            |
| Sulfur Compounds                             | Mixture     | 0-5             |
| Polymer Modifier (SBS or SBR)                | Mixture     | 0-5             |
| Anionic Emulsifier                           | Mixture     | 0.1-4           |
| Modified Resin Salts                         | PROPRIETARY | 0.75-2          |
| Polyamine                                    | Proprietary | 0-1             |
| Naphthalene                                  | 91-20-3     | 0.01-0.2        |
| Polycyclic Aromatic Hydrocarbons             | Mixture     | <0.1            |
| Hydrogen sulfide                             | 7783-06-4   | 0-0.1           |

All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

## 4. FIRST AID MEASURES

**First Aid Measures**

**General Advice:** Immediately address any airway, breathing, or circulation concerns. Contact EMS if the person is having trouble breathing, moving, or staying awake. Perform a quick assessment for other injuries that may be present including falls or from falling objects.

REMEMBER ABCC (AIRWAY, BREATHING, CIRCULATION, COOLING).

**Inhalation:** If symptoms of overexposure to asphalt fume develop, move to fresh air in a position comfortable for breathing. If symptoms or irritation occur, call a poison control center or doctor.

**Skin Contact:** Hot material: DO NOT DELAY. Immediately immerse or place the affected skin under a water stream for at least 15 minutes. Urgent medical attention is required for burns to the face, eyes, hands, feet, genitalia, and for circumferential or large burn areas. GET MEDICAL ATTENTION IMMEDIATELY.  
Do not attempt to remove solidified asphalt if not a physician. Leave burn uncovered. Ice (or "cold packs") may be used in the event that water is unavailable. Only remove clothing if not adhering to the skin. Be aware that although it is very important to cool the burn thoroughly and completely, the overuse of ice may increase the risk of hypothermia.

Cold material: To remove cold asphalt not associated with a burn, wash with soap and water or waterless cleaner. If symptoms or irritation or rash occur, call a poison control center or doctor.

**Eye Contact:** Hot material: After contact with hot asphalt, lay the person flat on their back, remove contact lenses if easy to do, and flush with water from a continuous stream for at least 15 minutes by allowing the water to flow over the bridge of the nose to the eyes. GET MEDICAL ATTENTION IMMEDIATELY.

Cold material: If irritation develops, flush eyes with water. If irritation or redness persists call a poison control center or a doctor.

**Ingestion:** Ingestion not likely. Small amounts of ingested asphalt usually require no treatment. If large amounts are swallowed, call a poison control center or doctor.

**Most important signs and symptoms, both short-term and delayed with overexposure**

**Adverse Effects:** Frequent or prolonged contact with cold material may cause irritation. Additional effects may include skin sensitization. Exposure to hot melted material can cause thermal burns.

**Indication of any immediate medical attention and special treatment needed**

**Notes To Physician:**

Immediately address any airway, breathing, or circulation concerns.

**SKIN & EYE CONTACT:** Prolonged flushing/cooling is necessary if the patient is treated on scene or soon after asphalt contact. Topical antibiotics should be liberally applied to the adhered asphalt-skin interface to aid in asphalt removal. A non-adherent material, such as Adaptic®, can then be applied and covered with sterile gauze. If topical antibiotics are not available, other materials that may be effective include mineral oil, baby oil, petroleum jelly (e.g. Vaseline®), mayonnaise, or butter. Do not use organic solvents such as kerosene, gasoline, or ethanol, as these can result in tissue damage or a fire hazard. Dressings should be changed every 4 hours until natural separation occurs. Initiate standard burn management at that time. Once cooled, adhered asphalt is not harmful to the skin, and in fact, provides a sterile cover over the affected area. The asphalt will detach itself within a few days as healing occurs. If it is necessary to remove the asphalt, only medically approved solvents or warm paraffin should be used to prevent further skin damage. Circumferential asphalt contact can have a tourniquet effect and impair distal circulation and nerve function. Create a longitudinal split or cut (analogous to an escharotomy) may be required completely across the residual asphalt to relieve pressure in the underlying tissue. For eye exposures with adherent asphalt, consult with an ophthalmologist. If hot material has caused burns to the eye, early ophthalmologic evaluation is recommended.

**INHALATION:** Inhalation exposure can produce toxic effects. Treat intoxications as hydrogen sulfide exposures. At high concentrations hydrogen sulfide may produce pulmonary edema, respiratory depression, and/or respiratory paralysis. The first priority in treatment should be the establishment of adequate ventilation and the administration of 100% oxygen. Monitor for respiratory distress. If cough or difficulty inbreathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water fog can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

**Unsuitable extinguishing media**

Do not use straight streams. Water contact can cause violent eruption of hot asphalt.

**Specific hazards arising from the chemical**

This product is not a combustible liquid per the OSHA Hazard Communication Standard, but will ignite and burn at temperatures exceeding the flash point. For additional fire related information, see NFPA 30 or the Emergency Response Guidebook 128.

**Hazardous combustion products**

Smoke, carbon monoxide, and other products of incomplete combustion.

**Explosion data**

**Sensitivity to Mechanical Impact** No.

**Sensitivity to Static Discharge** No.

**Special protective equipment and precautions for firefighters**

Firefighters should wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA) with a full face-piece, as appropriate. 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.

**Additional firefighting tactics**

Not applicable.

**NFPA**

Health 2

Flammability 1

Instability 0

Special Hazard -

## 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Keep public away. Isolate and evacuate area. Shut off source if safe to do so.
- Protective equipment:** Use personal protection measures as recommended in Section 8.
- Emergency procedures:** Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.
- Environmental precautions:** Avoid release to the environment. Avoid subsoil penetration.
- Methods and materials for containment:** Contain liquid with sand or soil.
- Methods and materials for cleaning up:** Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers.

## 7. HANDLING AND STORAGE

- Safe Handling Precautions:** Avoid contact with skin, eyes and clothing. Avoid breathing fumes, gas, or vapors. Use only with adequate ventilation. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment. Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements.
- Harmful concentrations of hydrogen sulfide (H<sub>2</sub>S) gas can accumulate in excavations and low-lying areas as well as the vapor space of storage and bulk transport compartments. Stay upwind and vent open hatches before unloading. Sulfur containing products may cause polysulfide deposits (iron sulfide) to form inside iron storage tanks. These pyrophoric deposits, upon exposure to air, can ignite spontaneously. Keep heating coils and flues in storage tanks, trucks and kettles covered with product (8"). Do not overheat.
- Storage Conditions:** Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area.
- Incompatible Materials** Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Name  | ACGIH TLV  | OSHA PELs:                               | OSHA - Vacated PELs  | NIOSH IDLH |
|---|--|--|--|------------|
| Asphalt<br>8052-42-4  | 0.5 mg/m <sup>3</sup> TWA  | -  | -  | -          |
| Distillates (petroleum),<br>straight-run middle<br>64741-44-2 | -  | -  | -  | -          |
| Sulfur Compounds<br>Mixture                                   | -  | -  | -  | -          |
| Polymer Modifier (SBS or SBR)<br>Mixture                      | -  | -  | -  | -          |
| Anionic Emulsifier<br>Mixture                                 | -  | -  | -  | -          |
| Modified Resin Salts<br>PROPRIETARY                           | -  | -  | -  | -          |
| Polyamine<br>Proprietary                                      | -  | -  | -  | -          |
| Naphthalene<br>91-20-3  | 10 ppm TWA<br>Skin - potential significant<br>contribution to overall<br>exposure by the cutaneous | TWA: 10 ppm<br>TWA: 50 mg/m <sup>3</sup> | 10 ppm TWA<br>50 mg/m <sup>3</sup> TWA<br>15 ppm STEL<br>75 mg/m <sup>3</sup> STEL | 250 ppm    |

|  |                         |                                 |  |         |
|--|-------------------------|---------------------------------|--|---------|
|  | route                   |                                 |  |         |
| Polycyclic Aromatic Hydrocarbons Mixture | -                       | -                               | -  | -       |
| Hydrogen sulfide 7783-06-4               | 1 ppm TWA<br>5 ppm STEL | Ceiling: 20 ppm<br>Peak: 50 ppm | 10 ppm TWA<br>14 mg/m <sup>3</sup> TWA<br>15 ppm STEL<br>21 mg/m <sup>3</sup> STEL | 100 ppm |

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

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

**Personal protective equipment**

**Eye protection:** Wear goggles and faceshield when handling hot material.

**Skin and body protection:** Wear insulated gloves when handling hot material. Contact the glove manufacturer for specific advice on glove selection and breakthrough times. Wear the appropriate thermal resistant clothing and footwear when handling and applying hot asphalt. Rubberized suits or coats may be needed for some maintenance operations with hot material.

**Respiratory protection:** Where there is potential for airborne exposure to hydrogen sulfide (H<sub>2</sub>S) above exposure limits, a NIOSH approved, self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode should be used. 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.

Provided hydrogen sulfide (H<sub>2</sub>S) is not detected: if there is potential to exceed the exposure limits for asphalt fumes a NIOSH certified air purifying respirator equipped with organic vapor cartridges/canisters with R or P95 filters should be used. A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed when conditions warrant the use of a respirator.

Note: Air purifying respirators are not to be used in atmospheres that exceed the maximum use concentration (as directed by regulation or the manufacturer's instructions), in oxygen deficient atmospheres, (less than 19.5 percent oxygen) or under conditions that are immediately dangerous to life and health (IDLH).

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical State** Liquid  
**Appearance** Black-brown solid or semi-solid at room temperature. Liquid at temperatures >70°C.  
**Color** Dark brown to black  
**Odor** Hydrocarbon / Tar  
**Odor Threshold** No data available.

| <u>Property</u>                              | <u>Values (Method)</u>           |
|--|----------------------------------|
| <b>Melting Point / Freezing Point</b>        | No data available.               |
| <b>Initial Boiling Point / Boiling Range</b> | > 100 °C / > 212 °F (ASTM D6997) |
| <b>Flash Point</b>                           | No data available.               |
| <b>Evaporation Rate</b>                      | No data available.               |
| <b>Flammability (solid, gas)</b>             | Not applicable.                  |
| <b>Flammability Limit in Air (%):</b>        |                                  |

|  |                               |
|--|-------------------------------|
| <b>Upper Flammability Limit:</b>           | No data available.            |
| <b>Lower Flammability Limit:</b>           | No data available.            |
| <b>Explosion limits:</b>                   | No data available.            |
| <b>Vapor Pressure</b>                      | Negligible @ 25°C (ASTM D323) |
| <b>Vapor Density</b>                       | No data available.            |
| <b>Specific Gravity / Relative Density</b> | 0.95-1.05                     |
| <b>Water Solubility</b>                    | Negligible                    |
| <b>Solubility in other solvents</b>        | No data available.            |
| <b>Partition Coefficient</b>               | No data available.            |
| <b>Decomposition temperature</b>           | No data available.            |
| <b>pH:</b>                                 | Not applicable.               |
| <b>Autoignition Temperature</b>            | No data available.            |
| <b>Kinematic Viscosity</b>                 | No data available.            |
| <b>Dynamic Viscosity</b>                   | No data available.            |
| <b>Explosive Properties</b>                | No data available.            |
| <b>VOC Content (%)</b>                     | No data available.            |
| <b>Density</b>                             | No data available.            |
| <b>Bulk Density</b>                        | Not applicable.               |

## 10. STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b><u>Reactivity</u></b>                         | The product is non-reactive under normal conditions. |
| <b><u>Chemical stability</u></b>                 | Stable under recommended storage conditions.         |
| <b><u>Possibility of hazardous reactions</u></b> | None under normal processing.                        |
| <b><u>Hazardous polymerization</u></b>           | Will not occur.                                      |
| <b><u>Conditions to avoid</u></b>                | Sources of heat or ignition.                         |
| <b><u>Incompatible Materials</u></b>             | Strong oxidizing agents.                             |
| <b><u>Hazardous decomposition products</u></b>   | None known under normal conditions of use.           |

## 11. TOXICOLOGICAL INFORMATION

**Potential short-term adverse effects from overexposures**

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Harmful if inhaled. Fumes or vapors from the heated material may be irritating to the respiratory tract. May cause drowsiness or dizziness. May release highly toxic hydrogen sulfide gas that quickly fatigues the sense of smell. |
| <b>Eye contact</b>  | Vapors may cause eye irritation and sensitivity to light. Contact with hot material may cause thermal burns.  |
| <b>Skin contact</b> | May cause skin irritation. May cause an allergic skin reaction. Contact with hot material may cause thermal burns.  |
| <b>Ingestion</b>    | If swallowed at ambient temperature no significant adverse effects are expected. Ingestion of large amounts may cause gastrointestinal blockage. Swallowing hot material may cause burns to the mouth, throat, and stomach.         |

**Acute toxicological data**

| Name  | Oral LD50          | Dermal LD50           | Inhalation LC50                   |
|---|--------------------|-----------------------|-----------------------------------|
| Asphalt<br>8052-42-4                            | > 5000 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | >94.4 mg/m <sup>3</sup> (Rat) 4 h |
| Distillates (petroleum), straight-run<br>middle | > 5000 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | 1700 mg/m <sup>3</sup> (Rat) 4 h  |

|  |                 |                       |                                   |
|--|-----------------|-----------------------|-----------------------------------|
| 64741-44-2                               |                 |                       |                                   |
| Sulfur Compounds Mixture                 | -               | -                     | > 5 mg/l (Rat) 4 h                |
| Polymer Modifier (SBS or SBR) Mixture    | -               | -                     | -                                 |
| Anionic Emulsifier Mixture               | -               | -                     | -                                 |
| Modified Resin Salts PROPRIETARY         | -               | -                     | -                                 |
| Polyamine Proprietary                    | -               | -                     | -                                 |
| Naphthalene 91-20-3                      | 490 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | > 340 mg/m <sup>3</sup> (Rat) 1 h |
| Polycyclic Aromatic Hydrocarbons Mixture | -               | -                     | -                                 |
| Hydrogen sulfide 7783-06-4               | -               | -                     | 444 ppm (Rat) 4 h                 |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

PETROLEUM ASPHALT: Eye and upper respiratory tract irritation has been reported in some asphalt workers (paving and roofing operations) but they are typically mild and transient. Some studies indicate that asphalt paving workers may experience lower respiratory tract symptoms (e.g., coughing, wheezing, and shortness of breath) and pulmonary function changes. Other studies of asphalt workers found no consistent relationship between exposure to asphalt fumes and pulmonary function. Increased levels of 1-hydroxypyrene (a marker for exposure to polycyclic aromatic hydrocarbons) have been observed in the urine of asphalt workers. Genotoxicity studies (e.g., DNA adducts in the urine) of asphalt workers have been largely inconclusive.

A slight increase in lung cancer mortality was reported in a study of European workers exposed to paving and mastic asphalt, but conclusions were equivocal. A follow-up case-control epidemiology study of asphalt paving workers sponsored by the International Association for Research in Cancer (IARC) concluded that there was no evidence that asphalt exposure was linked to lung cancer.

An increase in skin tumors was observed in lifetime studies of laboratory rodents exposed to extracts of asphalt (bitumen). The relevance of these studies to humans is not clear. No increase in skin tumors was observed in a lifetime bioassay where laboratory mice were treated with paving fume condensates. No increase in lung or other tumors were observed in a lifetime inhalation study in laboratory rats exposed to fumes from paving asphalt.

ASPHALTS USED IN ROOFING OPERATIONS: Some asphalts including roofing flux are further processed (oxidized/air-rectified) by the user or customer before use. An increased incidence of skin tumors was observed in a mouse skin carcinogenicity study where animals were exposed to condensed fumes collected from an oxidized roofing asphalt (BURA Type III) at above 450°F. Additional studies where mice were exposed to oxidized roofing asphalt fume condensates both as a tumor initiator and as a tumor promoter indicate that roofing fume condensate caused tumors as a result of initiation.

MIDDLE DISTILLATES, PETROLEUM: Long-term repeated (lifetime) skin exposure to similar materials has been reported to result in an increase in skin tumors in laboratory rodents. The relevance of these findings to humans is not clear at this time.

NAPHTHALENE: Severe jaundice, neurotoxicity (kernicterus) and fatalities have been reported in young children and infants as a result of hemolytic anemia from overexposure to naphthalene. Persons with glucose 6-phosphate dehydrogenase (G6PD) deficiency are more prone to the hemolytic effects of naphthalene. Adverse effects on the kidney have been reported in persons overexposed to naphthalene but these effects are believed to be a consequence of hemolytic anemia, and not a direct effect. Hemolytic anemia has been observed in laboratory animals exposed to naphthalene. Laboratory rodents exposed to naphthalene vapor for 2 years (lifetime studies) developed non-neoplastic and neoplastic tumors and inflammatory lesions of the nasal and respiratory tract. Cataracts and other adverse effects on the eye have been observed in laboratory animals exposed to high





|                            |                |            |                       |            |
|----------------------------|----------------|------------|-----------------------|------------|
| Hydrocarbons Mixture       | carcinogen(A2) |            | be a human carcinogen |            |
| Hydrogen sulfide 7783-06-4 | Not Listed     | Not Listed | Not Listed            | Not Listed |

**Reproductive toxicity** None known.

**Specific Target Organ Toxicity (STOT) - single exposure** Not classified.

**Specific Target Organ Toxicity (STOT) - repeated exposure** Not classified. Liver. Spleen. Bone marrow.

**Aspiration hazard** Potential for aspiration if swallowed.

**Unknown Acute Toxicity** Up to 10% of the mixture consists of ingredient(s) of unknown toxicity

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** This product should be considered toxic to aquatic organisms, with the potential to cause long lasting adverse effects in the aquatic environment.

| Name  | Algae/aquatic plants | Fish   | Toxicity to Microorganisms | Crustacea                           |
|---|----------------------|--|----------------------------|-------------------------------------|
| Asphalt 8052-42-4                                       | -                    | -  | -                          | -                                   |
| Distillates (petroleum), straight-run middle 64741-44-2 | -                    | -  | -                          | 48-hr TLm = 4.1 ppm Shrimp          |
| Sulfur Compounds Mixture                                | -                    | -  | -                          | -                                   |
| Polymer Modifier (SBS or SBR) Mixture                   | -                    | -  | -                          | -                                   |
| Anionic Emulsifier Mixture                              | -                    | -  | -                          | -                                   |
| Modified Resin Salts PROPRIETARY                        | -                    | -  | -                          | -                                   |
| Polyamine Proprietary                                   | -                    | -  | -                          | -                                   |
| Naphthalene 91-20-3                                     | -                    | 96-hr LC50 = 0.91-2.82 mg/l Rainbow trout (static)<br>96-hr LC50 = 1.99 mg/l Fathead minnow (static) | -                          | 48-hr LC50 = 1.6 mg/l Daphnia magna |
| Polycyclic Aromatic Hydrocarbons Mixture                | -                    | -  | -                          | -                                   |
| Hydrogen sulfide 7783-06-4                              | -                    | 96-hr LC50 = 0.016 mg/l Fathead minnow<br>96-hr LC50 = 0.013 mg/l Rainbow trout                      | -                          | -                                   |

**Persistence and degradability** Not expected to be readily biodegradable.

**Bioaccumulation** Not expected to bioaccumulate in aquatic organisms.

**Mobility in soil** Not likely to move rapidly with surface or groundwater flows because of its low water solubility.

**Other adverse effects** No information available.

## 13. DISPOSAL CONSIDERATIONS

**Description of Waste Residues**

No information available.

**Safe Handling of Wastes**

Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required.

**Disposal of Wastes / Methods of Disposal**

The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

**Methods of Contaminated Packaging Disposal**

Empty containers should be completely drained and then discarded or recycled, if possible. Dispose of in accordance with federal, state and local regulations.

**14. TRANSPORT INFORMATION**

**DOT (49 CFR 172.101):**

**UN Proper Shipping Name:** Not Regulated  
**UN/Identification No:** Not applicable  
**Class:** Not applicable.  
**Packing Group:** Not applicable.

**TDG (Canada):**

**UN Proper Shipping Name:** Not Regulated  
**UN/Identification No:** Not applicable.  
**Transport Hazard Class(es):** Not applicable.  
**Packing Group:** Not applicable.

**15. REGULATORY INFORMATION**

**US Federal Regulatory Information:**

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

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

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

| Name   | CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs |
|--|---|
| Asphalt                                      | NA  |
| Distillates (petroleum), straight-run middle | NA  |
| Sulfur Compounds                             | NA  |
| Polymer Modifier (SBS or SBR)                | NA  |
| Anionic Emulsifier                           | NA  |
| Modified Resin Salts                         | NA  |
| Polyamine                                    | NA  |
| Naphthalene                                  | NA  |
| Polycyclic Aromatic Hydrocarbons             | NA  |
| Hydrogen sulfide                             | 500   |

**SARA Section 304:** This product may contain 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   | Hazardous Substances RQs |
|--|--------------------------|
| Asphalt                                      | NA                       |
| Distillates (petroleum), straight-run middle | NA                       |
| Sulfur Compounds                             | NA                       |

|                                  |                                     |
|----------------------------------|-------------------------------------|
| Polymer Modifier (SBS or SBR)    | NA                                  |
| Anionic Emulsifier               | NA                                  |
| Modified Resin Salts             | NA                                  |
| Polyamine                        | NA                                  |
| Naphthalene                      | 100 lb final RQ<br>45.4 kg final RQ |
| Polycyclic Aromatic Hydrocarbons | 1 lb final RQ<br>0.454 kg final RQ  |
| Hydrogen sulfide                 | 100                                 |

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

Acute Health Hazard  
Chronic Health Hazard

**SARA Section 313:** This product may contain component(s), which if in exceedance of the de minimis threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

| Name   | CERCLA/SARA 313 Emission reporting: |
|--|-------------------------------------|
| Asphalt                                      | None                                |
| Distillates (petroleum), straight-run middle | None                                |
| Sulfur Compounds                             | None                                |
| Polymer Modifier (SBS or SBR)                | None                                |
| Anionic Emulsifier                           | None                                |
| Modified Resin Salts                         | None                                |
| Polyamine                                    | None                                |
| Naphthalene                                  | 0.1 % de minimis concentration      |
| Polycyclic Aromatic Hydrocarbons             | 0.1 % Supplier notification limit   |
| Hydrogen sulfide                             | 1.0 % de minimis concentration      |

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

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

**Asphalt**

- 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 (cutback, liquid rapid-curing, fumes)
- 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

**Distillates (petroleum), straight-run middle**

- 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

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|   |            |
|---|------------|
| 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 |
| Sulfur Compounds  |            |
| 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 |
| Polymer Modifier (SBS or SBR)   |            |
| 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 |
| Anionic Emulsifier  |            |
| 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                                      | Not Listed |

|   |  |
|---|--|
| Substances:   |  |
| New Jersey - Special Hazardous Substances:                                | Not Listed   |
| New Jersey - Environmental Hazardous Substances List:                     | Not Listed   |
| Illinois - Toxic Air Contaminants:  |  |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | Not Listed   |
| Modified Resin Salts  |  |
| 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:                                |  |
| New Jersey - Environmental Hazardous Substances List:                     | Not Listed   |
| Illinois - Toxic Air Contaminants:  |  |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | Not Listed   |
| Polyamine   |  |
| 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:                                |  |
| New Jersey - Environmental Hazardous Substances List:                     | Not Listed   |
| Illinois - Toxic Air Contaminants:  |  |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | Not Listed   |
| Naphthalene   |  |
| Louisiana Right-To-Know:  | Not Listed   |
| California Proposition 65:  | Carcinogen, initial date 4/19/02   |
| New Jersey Right-To-Know:   | SN 1322 SN 3758  |
| Pennsylvania Right-To-Know:   | Environmental hazard Present (particulate)   |
| 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:                                |  |
| New Jersey - Environmental Hazardous Substances List:                     | Carcinogen<br>SN 1322 TPQ: 500 lb (Reportable at the de minimis quantity of >0.1%) |

|   |   |
|---|---|
| Illinois - Toxic Air Contaminants:  | Present   |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | 100 lb RQ (air); 1 lb RQ (land/water)   |
| Polycyclic Aromatic Hydrocarbons  |   |
| Louisiana Right-To-Know:  | Not Listed  |
| California Proposition 65:  | Carcinogen  |
| New Jersey Right-To-Know:   | SN 3758   |
| Pennsylvania Right-To-Know:   | Environmental hazard; Special hazardous substance   |
| Massachusetts Right-To Know:  | Carcinogen; Extraordinarily hazardous   |
| Florida Substance List:   | Not Listed  |
| Rhode Island Right-To-Know:   | Present   |
| Michigan Critical Materials Register List:                                | 10 lb Annual usage threshold  |
| Massachusetts Extraordinarily Hazardous Substances:                       | Carcinogen; extraordinarily hazardous   |
| California - Regulated Carcinogens:                                       | Not Listed  |
| Pennsylvania RTK - Special Hazardous Substances:                          | Present   |
| New Jersey - Special Hazardous Substances:                                | Carcinogen; mutagen; teratogen  |
| New Jersey - Environmental Hazardous Substances List:                     | SN 3758 TPQ: 500 lb (If you have >500 lbs in combination of any of the listed chemicals, you are to report them under the category heading - N590 (that is, do not report the individual chemicals or their CAS numbers)) |
| Illinois - Toxic Air Contaminants:  | Present   |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | 1 lb RQ (air); 1 lb RQ (land/water)   |
| 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:   | Not Listed  |
| 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 TPQ: 500 lb   |
| Illinois - Toxic Air Contaminants:  | Not Listed  |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | 100 lb RQ (air); 100 lb RQ (land/water)   |

**Canada DSL/NDL Inventory:** This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

**Canadian Regulatory Information:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

| Name   | Canada - WHMIS: Classifications of Substances:                  | Canada - WHMIS: Ingredient Disclosure: |
|--|---|--|
| Asphalt                                      | Uncontrolled product according to WHMIS classification criteria | -                                      |
| Distillates (petroleum), straight-run middle | B3,D2B  | 1%                                     |
| Polyamine                                    | D2B,E   | 1%                                     |
| Naphthalene                                  | B4,D2A  | 0.1%                                   |
| Polycyclic Aromatic Hydrocarbons             | D2A,D2B   | 0.1%                                   |
| Hydrogen sulfide                             | A,B1,D1A,D2B  | 1%                                     |



Note: Not applicable.

## 16. OTHER INFORMATION

Prepared By Toxicology and Product Safety

### Revision Notes

Revision Date 05/19/2015

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.