S&Y TERMINAL, LLC
OWENSBORO, KENTUCKY

SAFETY DATA SHEET
for ANIONIC EMULSIFIED ASPHALT

1. Identification

Product Name: ANIONIC EMULSIFIED ASPHALT

Common Names: Anionic Emulsified Asphalt; Tack Oil; 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-1HP; SS-1M; HF Series; Marathon NTT- No Track Tack; Marathon NTTP - No Track Tack Polymerized; 0341MAR019; 0342MAR019; LT-1 – No Track Tack

Supplier's Name:
S&Y Terminal, LLC

Address: 4814 Highway 2830
Owensboro, KY 42303

Emergency Telephone Number:
270-783-1435

Telephone Number for Information:
270-781-3998 ext. 227

Internet Web Site: www.scottyscontracting.com

2. Hazard(s) 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	0.5-5.0
Polymer Modifier (SBS or SBR)	Mixture	0-5
Anionic Emulsifier	Mixture	0.1-4
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 20 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 20 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
FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles: if this is impossible, withdraw from area and let fire burn.

EVACUATION: Consider initial downwind evacuation for at least 1000 feet. If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation of 1600 meters (1 mile) in all directions.

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 (H2S) 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 8052-42-4	0.5 mg/m3 TWA	-	-	-
Distillates (petroleum), straight-run middle 64741-44-2	-	-	-	-
Sulfur Compounds Mixture	-	-	-	-
Polymer Modifier (SBS or SBR) Mixture	-	-	-	-
Anionic Emulsifier Mixture	-	-	-	-
Polyamine Proprietary	-	-	-	-
Naphthalene 91-20-3	10 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 10 ppm TWA: 50 mg/m3	10 ppm TWA 50 mg/m3 TWA 15 ppm STEL 75 mg/m3 STEL	250 ppm
Polycyclic Aromatic Hydrocarbons Mixture	-	-	-	-
Hydrogen sulfide 7783-06-4	1 ppm TWA 5 ppm STEL	Ceiling: 20 ppm	10 ppm TWA 14 mg/m3 TWA 15 ppm STEL 21 mg/m3 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.

Personal protective equipment

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

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 (H2S) 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 H2S 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 (H2S) 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.

Property	**Values (Method)**
Melting Point / Freezing Point	No data available.
Initial Boiling Point / Boiling Range	> 100 °C / > 212 °F (ASTM D6997)
Flash Point	No data available.
Evaporation Rate	No data available.
Flammability (solid, gas)	Not applicable.
Flammability Limit in Air (%):	
Upper Flammability Limit:	No data available.
Lower Flammability Limit:	No data available.
Explosion limits:	No data available.
Vapor Pressure	Negligible @ 25°C (ASTM D323)

Vapor Density	No data available.
Specific Gravity / Relative Density	0.95-1.05 @ 15.6°C (ASTM D70)
Water Solubility	Negligible
Solubility in other solvents	No data available.
Partition Coefficient	No data available.
Decomposition temperature	No data available.
pH:	Not applicable.
Autoignition Temperature	No data available.
Kinematic Viscosity	No data available.
Dynamic Viscosity	No data available.
Explosive Properties	No data available.
VOC Content (%)	No data available.
Density	No data available.

10.Stability and reactivity

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

11.Toxicological information

Potential short-term adverse effects from overexposures

Inhalation 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.

Eye contact Vapors may cause eye irritation and sensitivity to light. Contact with hot material may cause thermal burns.

Skin contact May cause skin irritation. May cause an allergic skin reaction. Contact with hot material may cause thermal burns.

Ingestion 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 8052-42-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	>94.4 mg/m3 (Rat) 4 h

Distillates (petroleum), straight-run middle 64741-44-2	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	1700 mg/m3 (Rat) 4 h
Sulfur Compounds Mixture	-	-	> 5 mg/l (Rat) 4 h
Polymer Modifier (SBS or SBR) Mixture			
Anionic Emulsifier Mixture			
Polyamine Proprietary			
Naphthalene 91-20-3	490 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 340 mg/m3 (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 levels of naphthalene. Findings from a large number of bacterial and mammalian cell mutation assays have been negative. A few studies have shown chromosomal effects (elevated levels of Sister Chromatid Exchange or chromosomal aberrations) in vitro. Naphthalene has been classified as Possibly Carcinogenic to Humans (2B) by IARC, based on findings from studies in laboratory animals.

HYDROGEN SULFIDE: Hydrogen sulfide gas has an unpleasant odor that diminishes with increased exposure. Eye irritation may occur at levels above 4 ppm. Olfactory fatigue occurs rapidly at levels of 50 ppm or higher. Odor is not a reliable warning property. Respiratory effects include irritation with possible pulmonary edema at levels above 50 ppm. At 500 ppm immediate loss of consciousness and death can occur. NIOSH has determined that 100 ppm hydrogen sulfide is immediately dangerous to life and health (IDLH).

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs): Cancer is the most significant endpoint for PAHs. Certain PAHs are weak carcinogens which become carcinogenic after undergoing metabolism. Chronic or repeated exposure increases the likelihood of tumor initiation. Increased incidence of tumors of the skin, bladder, lung and gastrointestinal tract have been described in individuals overexposed to certain PAHs. Overexposure to PAHs has also been associated with photosensitivity and eye irritation. Inhalation overexposure of PAHs has been associated with respiratory tract irritation, cough, and bronchitis. Dermal overexposure has been associated with precancerous lesions, erythema, dermal burns, photosensitivity, acneiform lesions and irritation. Oral overexposure to PAHs has been associated with precancerous growths of the mouth (leukoplakia). Mild nephrotoxicity, congestion and renal cortical hemorrhages and elevated liver function tests, changes in the immune system and other effects have been observed in rats exposed to high levels of PAHs by ingestion. The International Agency for Research on Cancer (IARC) has concluded that some PAHs are probably carcinogenic to humans.

Adverse effects related to the physical, chemical and toxicological characteristics

Signs and Symptoms	Frequent or prolonged contact with cold material may cause irritation. Rash. Contact with hot material may cause thermal burns.
Sensitization	May cause sensitization by skin contact. Not expected to be a respiratory sensitizer.
Mutagenic effects	None known.
Carcinogenicity	Cancer designations are listed in the table below

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
Asphalt 8052-42-4	Not classifiable (A4)	Emissions of straight-run asphalt from paving operations - Possible human carcinogen (2B)	Not Listed	Not Listed
Distillates (petroleum), straight-run middle 64741-44-2	Not Listed	Not classifiable (3)	Not Listed	Not Listed
Sulfur Compounds Mixture	Not Listed	Not Listed	Not Listed	Not Listed
Polymer Modifier (SBS or SBR)	Not Listed	Not Listed	Not Listed	Not Listed

Mixture				
Anionic Emulsifier Mixture	Not Listed	Not Listed	Not Listed	Not Listed
Polyamine Proprietary	Not Listed	Not Listed	Not Listed	Not Listed
Naphthalene 91-20-3	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Reasonably anticipated to be a human carcinogen	Not Listed
Polycyclic Aromatic Hydrocarbons Mixture	Suspected human carcinogen(A2)	Carcinogenic to humans (1)	Reasonably anticipated to be a human carcinogen	Not Listed
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	-	-	-	-
Polyamine Proprietary	-	-	-	

Naphthalene 91-20-3	-	96-hr LC50 = 0.91-2.82 mg/l Rainbow trout (static) 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 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
Transport Hazard Class(es): Not applicable.
Packing Group: Not applicable.

15.Regulatory information

Toxic Substances Control Act (TSCA):
This product and/or its components are listed on the TSCA Chemical Inventory.
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):
Releases of this material to water may be reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act.
(See Section 6)
Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III:

Section 302 extremely hazardous substances: None
Section 311/312 hazard categories: Delayed Health
Section 313 reportable ingredients at or above de minimus concentrations: None

California Proposition 65:

This product contains a chemical (crystalline silica, bitumen, various aromatic hydrocarbons) known to the State of California to cause cancer and birth defects or other reproductive harm.

State Regulatory Lists:

Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list or all state regulations. Therefore, the user should review the components listed in Section 2 and consult state or local authorities for specific regulations that apply.

16.Other information

Issue date:
06/01/2015
Revision date:
10/27/2017

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.