

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Asphalt (All Grades for paving and flux)

Product form : Mixture

Formula : Petroleum Hydrocarbon, a complex combination of hydrocarbons having carbon numbers

predominately higher than C25, and may contain hydrogen sulfide

Other means of identification : PG58-22, PG64-22, PG67-22, Asphalt Flux, Roofing Flux, Asphalt Blendstock, Vacuum

**Tower Bottom** 

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For paving and flux

#### 1.3. Details of the supplier of the safety data sheet

Apex Oil Company, Inc. Clark Oil Trading Company Enjet, LLC

8235 Forsyth Boulevard, Suite 400 St. Louis, Missouri 63105

General Assistance 1-314-889-9600

#### 1.4. Emergency telephone number

Emergency number : Chemtrec: 1-800-424-9300 (Apex reference number: 225708)

### SECTION 2: Hazard identification

#### **Classified Hazards**

No classified hazards

#### Other Hazards

Water contact with hot material can cause violent eruption Contact with hot product will cause thermal burns. May contain or release poisonous hydrogen sulfide gas.

#### **Label Elements**

#### WARNING

Water contact with hot material can cause violent eruption Contact with hot product will cause thermal burns. May contain or release poisonous hydrogen sulfide gas.

Avoid overheating to minimize fume production; Avoid breathing fumes from hot material

## SECTION 3: Composition/information on ingredients

Chemical Name	CASRN	Concentration <sup>1</sup>
Asphalt	8052-42-4	100
Hydrogen sulfide 77		Variable (<1)
Polycyclic Aromatic Hydrocarbons		<0.1

<sup>&</sup>lt;sup>1</sup> All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the

doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an

unconscious person.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at

least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact

lenses if present and easy to do so. If pain, blinking, or irritation develops or persists, get

medical attention. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison

control center or medical professional. Get medical attention immediately.

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : May cause genetic defects. May cause cancer. Causes damage to organs through prolonged

or repeated exposure.

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : May cause skin irritation.

Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating. Symptoms/injuries after ingestion May be fatal if swallowed and enters airways.

Chronic symptoms May cause genetic defects. May cause cancer. Causes damage to organs through prolonged

or repeated exposure.

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

No additional information available.

## SECTION 5: Firefighting measures

#### NFPA 704 Hazard Class

Health: 0 Flammability: 1 Instability: 0



0 (Minimal)

1 (Slight)

2 (Moderate)

3 (Serious)

4 (Severe)

₩ (Unusual reactivity with water)

Extinguishing Media: Dry chemical, carbon dioxide, or alcohol-resistant foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters. Water fog may be used on flat surfaces such as roads. Do not use water on asphalt fire in tank or other containers since it may cause violent eruption and spreading of burning asphalt.

#### Specific hazards arising from the chemical

Unusual Fire & Explosion Hazards: This material may burn, but will not ignite readily. This product will float and can be reignited on surface water. Vapors are heavier than air and can accumulate in low areas. When heated above its flash point, this material may release flammable vapors, which, if exposed to a source of ignition, can burn in the open or be explosive in confined spaces. Vapors released to atmosphere at these temperatures can cause flash fire. Hot asphalt may ignite flammable mixtures on contact. If water is applied to heated material, it can cause violent foaming and boil over. If container is not properly cooled, it can rupture in the heat of a fire. Hazardous combustion/decomposition products, including hydrogen sulfide, may be released by this material when exposed to heat or fire. Use caution and wear protective clothing, including respiratory protection.

Hazardous Combustion Products: Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Hydrogen sulfide and oxides of nitrogen and sulfur may also be formed.

Special protective actions for firefighters: For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water or foam can cause frothing. Cool equipment exposed to fire with water, if it can be done safely. Avoid spreading burning liquid with water used for cooling purposes.

## See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

#### **SECTION 6: Accidental release measures**

## Personal precautions, protective equipment and emergency procedures

: Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews General measures properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

**Emergency procedures** : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air

respirator, in case of emergency.

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

For containment

: Stop leak if safe to do so. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up

: Eliminate ignition sources. Wear suitable respiratory protective equipment. Ventilate area. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Sweep or shovel spills into appropriate container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

#### 6.4. Reference to other sections

See Sections 8 and 13.

#### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling

: Handle in accordance with good industrial hygiene and safety procedures. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Immediately rinse contaminated clothing thoroughly with water. Use only in well-ventilated areas. Avoid breathing vapors, mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use explosion-proof equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a dry, cool and well-ventilated place. Keep the container tightly closed. Store in original container. Keep away from ignition sources. Ground and bond all transfer and storage equipment.

## SECTION 8: Exposure controls/personal protection

Chemical Name	ACGIH	OSHA	Other
Asphalt	TWA: 0.5 mg/m³ as benzene soluble inhalable aerosolTWA: 0.5 mg/m³ as benzene soluble inhalable aerosol		
Hydrogen sulfide	STEL: 5 ppm TWA: 1 ppm	Ceiling: 20 ppm	TWA: 5 ppm 8hr TWA: 2.5 ppm 12hr STEL: 15 ppm (Phillips 66 Guidelines)

## 8.2. Exposure controls

Appropriate engineering controls

: Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

: Gloves. Protective goggles. Wear chemically impervious apron over labcoat and full coverage clothing.





Hand protection

: Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. . Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection

: Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection

: Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

### Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Respiratory protection : Use NIOSH-approved dust/particulate re

: Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

## **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Viscous semi-solid to solid at room temperature.

Color : Black

Odor : Hydrocarbon-asphaltic.

Odor Threshold : Asphaltic odor at use temperatures (> 149 °C (300 °F))

pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available

Boiling point : 232 - 538 °C (450 - 900 °F) Flash point : 218 - 288 °C (450 - 550 °F)

Auto-ignition temperature : > 427 °C (800 °F)

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : < 5.17 mm Hg (0.1 psi) @ 37.8 °C (100 °F)

Relative vapor density at 20 °C : > 5 (air = 1)

Relative density : 1 - 1.1 @ 15.5 °C (60 °F)

Solubility : Negligible. Log Pow : No data available : No data available Log Kow Viscosity, kinematic : No data available : No data available Viscosity, dynamic Explosive properties : No data available Oxidising properties : No data available **Explosive limits** : 0.9 - 7 vol %

9.2. Other informationNo additional information available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

#### 10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

#### 10.3. Possibility of hazardous reactions

None known.

## 10.4. Conditions to avoid

Avoid contact with: Ignition sources. Heat. Sparks. Open flame. Incompatible materials.

## 10.5. Incompatible materials

Oxidizing agent. Strong acids. caustic materials. Halogens.

## 10.6. Hazardous decomposition products

Thermal decomposition generates: Carbon oxides (CO, CO<sub>2</sub>). Sulfur oxides. Hydrocarbons.

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Asphalt (8052-42-4)		
LD50 oral rat	> 5000 mg/kg	
LD50 dermal rabbit	> 2000 mg/kg	
Benzene (71-43-2)		
LD50 dermal rabbit	> 8200 mg/kg	
LC50 inhalation rat (mg/l)	44.66 mg/l/4h (vapor)	

### Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Distillates, petroleum, petroleum residues vacuum (68955-27-1)			
LD50 oral rat	4320 mg/kg		
LD50 dermal rabbit	> 2000		
Skin corrosion/irritation	: Not classified		
Serious eye damage/irritation	: Not classified		
Respiratory or skin sensitisation	: Not classified		
Germ cell mutagenicity	: May cause genetic defects.		
Carcinogenicity	: May cause cancer.		
Asphalt (8052-42-4)			
IARC group	2B - Possibly carcinogenic to humans		
Benzene (71-43-2)			
IARC group	1 - Carcinogenic to humans		
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens		
Ethylbenzene (100-41-4)			
IARC group	2B - Possibly carcinogenic to humans		
Reproductive toxicity	: Not classified		
Specific target organ toxicity (single exposure)	: Not classified		
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure.		
Aspiration hazard	: Not classified		
Symptoms/injuries after inhalation	: May cause respiratory irritation.		

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : May cause skin irritation.

Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating. Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

Chronic symptoms : May cause genetic defects. May cause cancer. Causes damage to organs through prolonged

or repeated exposure.

## **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general : No information available.

## 12.2. Persistence and degradability

Asphalt (All Grades for paving and flux)	
Persistence and degradability	No information available.

#### 12.3. Bioaccumulative potential

Asphalt (All Grades for paving and flux)	
Bioaccumulative potential	No information available.

#### 12.4. Mobility in soil

Asphalt (All Grades for paving and flux)	
Ecology - soil	No information available.

## 12.5. Other adverse effects

Other adverse effects : No data available.

#### **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

Waste treatment methods : Obtain the consent of pollution control authorities before discharging to wastewater treatment

plants.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the

product to be released into the environment.

### **SECTION 14: Transport information**

In accordance with DOT

Transport document description : UN3257 Elevated temperature liquid, n.o.s. (at or above 100 C and below its flash point

(including molten metals, molten salts, etc.)), 9, III

UN-No.(DOT) : 3257 DOT NA no. : UN3257

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Proper Shipping Name (DOT) : Elevated temperature liquid, n.o.s.

Department of Transportation (DOT) Hazard : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Classes

Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



Packing group (DOT) : III - Minor Danger

DOT Quantity Limitations Passenger aircraft/rail : Forbidden

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : Forbidden

CFR 175.75)

**DOT Vessel Stowage Location** 

: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

at or above 100 C and below its flash point (including molten metals, molten salts, etc.)

passenger vessel.

**DOT Vessel Stowage Other** : 85 - Under deck stowage must be in mechanically ventilated space

**Additional information** 

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

## **SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

Asphalt (All Grades for paving and flux)			
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Investigation		in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory	
	SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard	

Benzene (71-43-2)			
Section 302 (EHS) TPQ			
Section 304 EHS RQ			
CERCLA RQ	10	lb	
Section 313	Listed on US SARA Section 313		

Ethylbenzene (100-41-4)		
Section 302 (EHS) TPQ		
Section 304 EHS RQ		
CERCLA RQ	1000	lb
Section 313	Listed on US SARA Section 313	

#### 15.2. International regulations

#### CANADA

Asphalt (All Grades for paving and flux)
All chemical substances in this product are listed on the Canadian DSL (Domestic Substances List)

### 15.3. US State regulations

#### California Proposition 65

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Benzene (71-43-2)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	Yes	No	Yes	6.4 (oral) µg/day 13 (inhalation) µg/day

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Toluene (108-88-3)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	Yes	No	No	7,000 µg/day

#### Asphalt (Asphalt fumes) (8052-42-4)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### Benzene (71-43-2)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania ŘTK (Right to Know) Special Hazardous Substances
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List

#### Toluene (108-88-3)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Massachusetts Right To Know List U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List

#### Hydrogen sulfide (7783-06-4)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List

### **SECTION 16: Other information**

Indication of changes : Revision 1.2: SDS Revised

Revision date Other : 11/26/2015 information : Author: BCS.

### **HMIS III Rating**

Health : 2\* Flammability : 1 Physical : 0 Personal Protection

Information contained herein was based on data and compiled from reference materials and other sources believed to be reliable and is offered in good faith. However, the SDS's accuracy or completeness is not guaranteed by Apex, nor is any responsibility assumed or implied for any loss or damage resulting from inaccuracies or omissions. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user and WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.